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THE ROSE

THE ROSE:

ITS

HISTORY, POETRY, CULTURE,

AND

CLASSIFICATION.

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BY S. B. PARSONS.  
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NEW YORK.

WILEY & PUTNAM, 161 BROADWAY.

1847.

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PREFACE.

THE commencement and partial preparation of this work assisted to beguile the tedium of a winter's residence from home, where even Orange and Magnolia groves, with the luxuriant vegetation of a semi-tropical region, could scarcely dispel the ennui attending a life of idleness. Our especial object has been to throw around the culture of the Rose a halo of pleasant thoughts and associations; and while to the mere cultivator there may seem much irrelevant matter of history, poetry, and the like, we think that it will not thus seem to all. For the classical scholar, the early history of the Rose, and its connection with the manners and customs of the two great nations of a former age, will impart to it no slight interest; while the various poetic effusions, which we have endeavored to string together in a multifarious garland, will clothe our favorite flower with additional charms in the eyes of many, and render it perhaps more attractive with the gentler sex, to whom pre-eminently belong the culture and the care of flowers.

For many interesting facts in the History and Culture of the Rose, we are indebted to Deslongchamps, Vibert, Laffay, and several anonymous writers. To the former we wish most fully to express our obligations, both for the plan of this work and for many interesting facts and researches, to which we cannot conveniently attach his name in the body of the work.

Upon the classification we have bestowed much thought, and although we do not feel quite satisfied with the system we have adopted, it is the best that occurs to us in the present condition of rose culture. The amateur will, we think, find the labor of selection much diminished by the increased simplicity of the mode we have adopted, while the commercial gardener will in nowise be injured by the change.

In directions for culture, we give the results of our own experience, and have not hesitated to avail ourselves of any satisfactory results in the experience of others, which might enhance the utility of the work.

The colored engravings were drawn from nature, by one of the best Parisian artists, and are deemed correct portraits.

While we do not claim exemption from hyper criticism in any form, we readily express our willingness to be ever open to conviction, in a field where, among the varied results of experiment and skill, there is much room for difference of opinion.

For our labor we shall feel abundantly compensated, if the publication of this work shall in any way tend to produce a more general admiration and increased culture of the most beautiful denizen of the floral kingdom.

S. B. P.

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HISTORY OF THE ROSE.

CHAPTER I.

THE EARLY HISTORY OF THE ROSE, AND FABLES RESPECTING ITS ORIGIN.

VERY little is known of the early history of the Rose, or who were its first cultivators; and on this point all is conjecture. Mention of it is made in the ancient Coptic manuscripts, while nothing concerning it can be distinguished, with any degree of certainty, on the Egyptian monuments which are left us. Bocastre, the French traveler, observes, that he carefully searched all the monuments in Egypt, and could find neither sculpture nor painting, figure nor hieroglyphic, that would lead us to suppose that the Rose was cultivated by the ancient Egyptians. We are, however, induced to believe that this beautiful flower was known to them, from the fact that several varieties are now found in Egypt. Dr. Delile, Director of the Botanic Garden at Montpellier, and with whom we enjoyed some pleasant intercourse during a recent visit to that place, was with Napoleon in his expedition to Egypt. In his valuable published account of that expedition, he mentions that he found there two varieties of the Rose—*Rosa alba* and *Rosa centifolia*; and there is also reason to believe, that under Domitian the Egyptians cultivated

another variety—*Rosa bifera*. It is quite probable that the Rose was planted in the celebrated gardens of Babylon, the formation of which is attributed to Semiramis, about 1200 years before the Christian era; and it also appears probable, from the testimony of modern travelers, that several kinds of roses crossed over into Persia.

It is very certain that the Rose was cultivated by the Jews during the reign of Solomon, about two centuries after Semiramis; for mention of this flower is made in the Scripture books attributed to that king. In the Song of Solomon, he says: "I am the Rose of Sharon and the Lily of the valleys;" and in the Apocryphal Wisdom of Solomon—"Let us crown ourselves with rose-buds before they be withered."

It also appears, by several passages of the Book of Ecclesiasticus, the author of which lived about 700 years after Solomon, that the Jews possessed beautiful gardens of roses, particularly at Jericho. "I was exalted like a palm-tree in Engaddi, and as a rose-plant in Jericho:" xxiv. 14. "Hearken unto me, ye holy children, and bud forth as a rose growing by the brook of the field:" xxxix. 13. "And as the flower of roses in the spring of the year:" l. 8. These passages prove that this most fertile and beautiful portion of Palestine abounded in roses, palms and cedars. They no longer, however, abound; for while "the cedars wave on Lebanon," and the solitary palm stands in its isolated beauty, the Rose has entirely disappeared; and that now called the Rose of Jericho, is but a little plant of the family of *Cruciferae*. The Greeks cultivated the Rose at an early period, during the time of Homer, who lived about 200 years after the wise Hebrew monarch. In the Iliad and Odyssey he borrows the brilliant colors of the Rose to paint the rising of the sun. Aurora, according to this poet, has fingers of roses, and perfumes the air with roses. Few poets are more celebrated than Homer for beauty of conception, and for his frequent similes borrowed from natural objects. His selection, in this instance, evinces that the Rose was neither an unknown nor an unadmired flower. Herodotus, who lived

about 400 years before the Christian era, mentions that in Macedonia, in the gardens which were supposed to have belonged to Midas, there were roses of sixty petals, which grew spontaneously without culture, and emitted a most delightful perfume.

Ancient writings are full of allusions to the Rose and fabulous accounts of its origin. From its brilliant colors, melting into each other as the shades of night melt into the glowing richness of the rising sun, it was frequently consecrated to Aurora. It was also consecrated to Harpocrates, the patron of Silence, of which it was considered the symbol. Thus the expression "*sub rosa*" (under the Rose), signified that all that was said should remain secret; and there is scarcely used a more expressive device for a seal, than the simple figure of a Rose. It was the custom, in some of the northern countries, to suspend a Rose over the table in the dining-room, reminding the guests that silence should be observed respecting all that might be said during the meal.

Anacreon, Bion, Theocritus, Apollodorus, and others, relate various fables respecting its origin and its obtaining the bright color for which it is distinguished.

One fable relates that Flora, having found the dead body of one of her favorite nymphs, whose beauty could only be equalled by her virtue, implored the assistance of all the Olympian deities, to aid her in changing it into a flower, which all others should acknowledge to be their queen. Apollo lent the vivifying power of his beams, Bacchus bathed it in nectar, Vertumnus gave its perfume, Pomona its fruit, and Flora herself gave its diadem of flowers. A beetle is often represented on antique gems, as expiring, surrounded by roses; and this is supposed to be an emblem of luxurious enervation; the beetle being said to have such an antipathy to roses, that the smell of them will cause its death.

From the earliest period, the Greeks gave to the Rose the preference over all other plants, and distinguished it as the "Queen of Flowers." In the fragments which still exist of Sappho, who lived about 600 years before the Christian era, there are lines in which the Rose is placed in the highest rank.

It is, however, in the ode which Anacreon has especially

devoted to the praise of the Rose, that there seems a truly enthusiastic love for that beautiful flower. Nothing which has been written on this subject, can equal the beauty of this little gem, even clothed, as it is, in the somewhat inflated style of the author. It will be found on another page.

Since Sappho and Anacreon, many poets, both ancient and modern, have celebrated, in their songs, the charming qualities of the Rose. They have chosen it for an emblem of the most beautiful things—for the most pleasing and delightful comparisons; and they have united in making it the symbol of innocence, of modesty, of grace, and of beauty. Quite a volume might be collected of all the verses and pleasant sentences that have been inspired by the elegant form of the Rose—its charming color and delightful fragrance. Some of these we have inserted in another part of the work. Nothing proves better the preference which has always existed for this beautiful flower, than the thoughts expressed by Sappho. Anacreon and the other poets of antiquity have since imitated her in almost every language, and the lines of these have sacrificed nothing of her elegance and freshness.

The poets and writers of the East have abundantly celebrated, in their works, the beauties of the Rose. According to the Boun-Dehesch, of Zoroaster, the stem of that flower was free from thorns until the entrance of Ahrimanus (the evil one) into the world; the universal spirit of evil, according to their doctrine, affecting not only man but also the inferior animals, and even the very trees and plants. The same work states, that every flower is appropriated to a particular angel, and that the hundred-leaved Rose (*Rosa centifolia*) is consecrated to an archangel of the highest order. Basil, one of the early fathers, had undoubtedly seen these passages in oriental works, when he related that at the creation of the world the Rose had no thorns, and that they were gradually furnished with them as mankind became more corrupt.

The oriental writers also represent the nightingale as sighing for the love of the Rose; and many beautiful stanzas have arisen

from this fable. According to the *Language of Flowers*; "In a curious fragment by the celebrated Persian poet Attar, entitled *Bulbul Nameh*, the Book of the Nightingale, all the birds appear before Solomon, and charge the nightingale with disturbing their rest, by the broken and plaintive strains which he warbles forth all the night, in a sort of frenzy and intoxication. The nightingale is summoned, questioned, and acquitted by the wise king; because the bird assures him, that his vehement love for the Rose drives him to distraction, and causes him to break forth into those passionate and touching complaints which are laid to his charge." The same work also mentions that the Persians assert, that "the nightingale, in spring, flutters around the rose-bushes, uttering incessant complaints, till, overpowered by the strong scent, he drops stupified on the ground. The invention of these fables, extravagant as they are, evince the Persian fondness for this beautiful flower. The Ghebers, or Persian fire-worshippers, believe that Abraham was thrown into the fire by Nimrod, when the flame turned into a bed of roses. According to the Hindoo mythology, Pagoda Siri, one of the wives of Vishnu, was found in a rose.

Among the many stories of roses in the East, is that of the philosopher Zeb, related by Madame de Latour. "There was at Amadan, in Persia, an academy with the following rules: Its members must think much, write a little, and be as silent as possible. The learned Zeb, celebrated through all the East, learning that there was a vacancy in the academy, endeavored to obtain it, but arrived, unfortunately, too late. The academy was annoyed because it had given to power what belonged to merit, and the president, not knowing how to express a refusal without mortifying the assembly, caused a cup to be brought, which he filled so full of water, that a single drop more would have made it run over. The wise philosopher understood, by that emblem, that no place remained for him, and was retiring sadly, when he perceived a rose petal at his feet. At that sight, he took courage, seized the petal, and placed it so delicately on the water, that not a single drop escaped. At this ingenious allusion to the rules of

the academy, the whole assembly clapped their hands, and the philosopher was admitted as a member." Madame de Genlis relates very nearly the same anecdote, but attributes it to Abdulkadri, a person celebrated among the Turks, who was desirous of residing at Babylon, where they were unwilling to receive him.

The Turks themselves, matter of fact as they are, have also seen something marvelous in the beautiful and vivid tints which the hand of nature has painted on the corolla of the Rose; but their imagination, less glowing than that of the Greeks, furnished them an idea more singular than pleasing. They suppose that the Rose owed its origin to the perspiration which fell from Mahomet; for which reason they never tread upon a rose-leaf, or suffer one to lie on the ground.

Meshilu, the Turkish poet, speaks of "a pavilion of roses, as the seat of pleasure raised in the garden;" of "roses like the bright cheeks of beautiful maidens;" of the time when "the plants were sick, and the rose-bud hung its thoughtful head on its bosom;" and of the "dew, as it falls, being changed into rose-water." They also sculpture a rose on the tomb-stone of a female who dies unmarried.

The early Roman Catholics have made the Rose the subject of various miraculous events—one of which is attributed to the canonized Elizabeth, Queen of Hungary. As the French author, Montalembert, relates it in his history of that queen, Elizabeth loved to carry to the poor herself, by stealth, not only money, but even food and other things which she had provided for them. She went thus loaded and on foot, by the steep and hidden paths which led from the chateau to the town, and to the cottages in the neighboring valleys. One day, when, accompanied by her favority maid, she was descending by a rough and scarcely visible path, carrying under her cloak some bread, meat, eggs, and other food, for distribution among the poor, she was suddenly met by her husband, who was returning from the chase. Astonished to see her thus bending under the weight of her burden, he said to her, "Let me see what you are carrying." At the same time he threw open the cloak, which she held, with terror, to her

breast, but found, as the legend says, nothing there but some white and red roses, the most beautiful he had ever seen.

D'Orbessan, in his work on the Rose, states that, in the church of Sainte-Luzanne, at Rome, is a mosaic of the time of Charlemagne, in which that prince is represented in a square mantle, and on his knees, while St. Peter is placing in his hands a standard covered with roses.

Michaud, in his *Biographie Universelle*, speaks of Clemence Isaure, a French lady, who lived in the latter part of the 15th century. She bequeathed to the academy of Toulouse a large income, exclusively for the celebration of floral games, and for the distribution of five prizes for as many pieces of poetry. The prizes consisted of an amaranth and rose of gold, and of a violet, marigold, and lily, of silver. The will also required that every three years, on the day of the commencement of the floral games, among other ceremonies to be observed, the members of the academy should visit and spread flowers upon her tomb. Ronsard, the French poet, having gained the first prize in the floral games, received, in place of the accustomed rose, a silver image of Minerva. Mary, Queen of Scots, was so much delighted with Ronsard's beautiful poetry on the Rose, that she sent him a magnificent rose of silver, valued at £500, with this inscription:—
"A Ronsard. l'Apollon de la source des Muses."

CHAPTER II.

LUXURIOUS USE OF THE ROSE.

THE ancients possessed, at a very early period, the luxury of roses, and the Romans brought it to perfection by covering with beds of these flowers the couches whereon their guests were placed, and even the tables which were used for banquets;¹ while some emperors went so far as to scatter them in the halls of their palace. At Rome, they were, at one time, brought from Egypt, in that part of the year when Italy could not produce them; but afterwards, in order to render these luxuries more easily attainable during the winter, by the leaders of the *ton* in that capital city of the world's empire, their gardeners found the means of producing, in green-houses warmed by means of pipes filled with hot water, an artificial temperature, which kept roses and lilies in bloom until the last of the year. Seneca declaimed, with a show of ridicule, against these improvements;² but, without being discouraged by the reasoning of the philosopher, the Romans carried their green-houses to such perfection, that, at length, during the reign of Domitian, when the Egyptians

¹ "Tempora subtilius pinguntur tecta coronis,
Et latent injecta splendida mensa Rosa." (Ovid, lib. v.)

² "Non vivunt contra naturam, qui hieme concupiscunt Rosam? Fomentoque aquarum calentium, et calorum apta imitatione, bruma lilium florem vernum, exprimunt." (Seneca, *epistle* 122-8.)

thought to pay him a splendid compliment in honor of his birthday, by sending him roses in the midst of winter, their present excited nothing but ridicule and disdain, so abundant had winter roses become at Rome, by the efforts of art. Few of the Latin poets have been more celebrated for their epigrammatic wit than Martial; and his epigram "to Cæsar, on the Winter Roses," serves to show that the culture of roses at Rome was carried to such perfection, as to make the attempts of foreign competitors subjects only for ridicule.³

"The ambitious inhabitants of the land watered by the Nile have sent thee, O Cæsar, the roses of winter, as a present valuable for its novelty. But the boatman of Memphis will laugh at the gardens of Pharaoh as soon as he has taken one step in thy capital city—for the spring, in its charms, and the flowers in their fragrance and beauty, equal the glory of the fields of Pæstum. Wherever he wanders or casts his eyes, every street is brilliant with garlands of roses. And thou, O Nile! must now, yield to the fogs of Rome. Send us thy harvests, and we will send thee roses."

By this passage it is evident that the cultivation of roses, among the ancients, was much farther advanced than is generally supposed. In another epigram Martial speaks again of roses, which were formerly seen only in the spring, but which in his time had become common during the winter. We are

³ AD CÆSAREM DE ROSIS HIBERNIS.

"Ut nova dona tibi, Cæsa, Nilotica tellus
Miserat hibernas ambitiosa Rosas:
Navita derisit Pharios Memphiticus hortos,
Urbis ut intravit limina prima tuæ.
Tantus veris honos, et odore gratia floræ,
Tantaque Pæstani gloria ruris erat.
Sic quacumque vagus, gressum oculosque ferebat,
Textilibus sertis omne rubebant iter.
At tu Romanæ jussus jam cedere brumæ,
Mitte tuas messes, accipe, Nile, Rosas."

MARTIAL, lib. vi., epig. 80.

also but copyists of the Romans, in the cultivation of flowers in windows; for vases of every style of beauty, and filled with roses, were a frequent ornament of their windows. Martial says that a miserly patron had made him a present of a very small estate, and adds that he has a much better country place in his window. Much that illustrates the use which the ancients made of roses in their ceremonies, in their festivals, and in their domestic life, may be found in various authors, evincing still more how very common the use of them had become. Florus relates that Antiochus, king of Syria, being encamped in the island of Eubœa, under woven tents of silk and gold, was not only accompanied by a band of musicians, but that he might yet more enhance his pleasures, he wished to procure roses; and although it was in the midst of winter, he caused them to be collected from every quarter.

The gallants of Rome were in the habit of presenting their favorite damsels with the first roses that appeared in spring; and "*Mea rosa*" was an affectionate expression they often used to their betrothed.

We frequently find in old Latin authors, an entire abandonment to pleasure and excessive luxury signified by such expressions as, *living in the midst of roses, sleeping on roses, &c.* (*Vivere in rosa, dormire in rosa.*)

Seneca speaks of Smyndiride, the most wealthy and voluptuous of the Sybarites, who could not sleep if a single one of the rose-petals with which his bed was spread, happened to be curled.

Cicero, in his "*de finibus*," alludes to the custom which prevailed at Rome at that time, of reclining at the table on couches covered with roses; and comparing the happiness which virtue gives, to the pleasures of luxury, says that "Regulus, in his chains, was more happy than Thorius drinking on a couch of roses and living in such a manner that one could scarcely imagine any rare and exquisite pleasure of which he did not partake."

The same author, in his celebrated speech against Verres, the greatest extortioner whose name is recorded in history, reproached him not only with the outrageous robberies and cruelties which

he committed during the three years that he was governor of Sicily, but yet more with his effeminacy and licentiousness. "When spring commenced," said the Roman orator, "that season was not announced to him by the return of Zephyr, nor by the appearance of any heavenly sign; it was not until he had seen the roses bloom, that spring was visible to his voluptuous eye. In the voyages which he made across the province, he was accustomed, after the example of the kings of Bithynia, to be carried in a litter borne by eight men, in which he reposed, softly extended upon cushions made of transparent material and filled with roses of Malta, having in his hand a net of the finest linen, and equally full of these flowers, whose fragrance incessantly gratified his eager nostrils."

Latinus Pacatus, in his eulogium on the Emperor Theodosius, inveighs against the luxury of the Romans, whose sensual desires, he says, were not satisfied until they had reversed the order of the seasons, and produced roses in the winter season to crown their cup of wine, and until their Falernian during the summer, was cooled in large vessels filled with ice. The forcing of roses in winter, is no longer extensively practiced in Rome; but during the summer they are more abundant, and we recollect being much struck with admiration of some beautiful hedges of the Daily rose in the villas near Rome.

After reading the preceding statements of the abundance of roses among the ancient Romans, it is with some surprise that we recollect the great scarcity of that flower during the gayest and most animated festival of the modern Romans—the Carnival. As we slowly walked along the Corso, submitting with as quiet a grace as possible to the various fantastic tricks of the masqued figures around us, and occasionally pelted with handfuls of sugar-plums from the windows, or passing carriages, we looked in vain for roses or camellias in the numerous bouquets that were cleaving the air around us. Little bouquets of violets were numerous, and the air was thick with them, as our eyes, nose, and mouth could bear striking witness; and we recollect, too, the contemptuous curl of the lip, and rush of the aris-

tocratic blood into the face of a fair English girl, in one of the carriages, whose blue eyes had been nearly closed by an awkward cast of one of these petitsbouquets from the hand of a plebian performer. But we only recollect catching a glimpse now and then, of a *single* rose or camellia, skilfully passed by a cavalier below, into the hands of some dark-eyed beauty in the balconies above; the bright sparkle of whose eye convinced us that the single flower was of value, and a mark of especial regard. The Rose appeared to be valued as some rare exotic, and not to be idly bestowed where there was small probability of its due appreciation; it was indeed a "*rara flora in urbe*," and quite superseded by the very pretty and abundant violets.

The modern Romans have not only lost many of the good qualities of their early ancestors, but they have also escaped much of the effeminate softness which characterized the Romans under some of the later emperors; and as belonging to this state of luxury, the cultivation of the Rose has in modern times been much neglected. The homage of the Romans is now reserved for art, and the beautiful products of nature are in their opinion, worthy only of secondary consideration. The Rose is now mostly confined in that city to the residences of the wealthier classes, and can scarcely be said to have resumed its old place in Roman esteem, until it is again a favorite with the mass of the people.

When Cleopatra went into Cilicia to meet Marc Antony, she gave him for several successive days festivals, in which she displayed a truly royal magnificence. She caused to be placed in the banqueting hall twelve couches, each of which would hold three guests. The walls were covered with purple tapestry, interwoven with gold; all the vases were of gold, admirably executed and enriched with precious stones.

On the fourth day, the queen carried her sumptuousness so far as to pay a talent (about six hundred dollars) for a quantity of roses, with which she caused the floor of the hall to be covered to the depth of eighteen inches. These flowers were retained by a very fine net, in order that the guests might walk over them.

In connection with this fact, it is curious to notice the following anecdote related by Pliny.

"At the time that Marc Antony was preparing for the battle of Actium, he felt suspicious of Cleopatra, and made her taste of all the dishes which were served up to him, she all the while ridiculing his fears.

"One day, while giving him a banquet, she placed on his head a crown, bordered with poisoned flowers; and when Antony was heated with wine, she proposed that each should drink his crown. He at once consented, and hastening to tear off his crown, placed it in his cup and was about to drink it, when the queen stopped him, saying: 'Why do you suspect me of deadly intentions towards your person? if it were possible to live without you, see how easy I could send you from the world.' At the same time having ordered a criminal from prison, she gave him the cup to drink, and he expired in a moment."

At a later period, and after the loss of the battle of Actium, Antony, not wishing to survive his defeat, from fear of falling into the hands of Augustus, thrust himself through with his sword, and requested Cleopatra to scatter perfumes over his tomb and to cover it with roses.

The greatest profusion of roses mentioned in ancient history, and which is scarcely credible, is that which Suetonius attributes to Nero. This author says, that at a fête which the emperor gave in the gulf of Baia, when inns were established on the banks, and ladies of distinction played the part of hostesses, the expense incurred for roses alone, was more than four millions of sesterces—about \$100,000. Since Nero, many of his successors have nearly equalled him in prodigal enjoyment of the luxury of roses. Lucius Aurelius Verus, whose licentiousness and destitution of every manly quality equalled that of the worst emperors, but whom no one reproaches with any act of cruelty, was the inventor of a new species of luxury. He had a couch made, on which were four raised cushions, closed on all sides by a very thin net, and filled with leaves of roses. Heliogabalus,

celebrated for luxury and vice of every kind, caused roses to be crushed with the kernels of the pine (*Pinus maritima*), in order to increase the perfume. The same emperor caused roses to be scattered over the couches, the halls, and even the porticoes of the palace, and he renewed this profusion with flowers of every kind: lilies, violets, hyacinths, narcissus, &c. Gallien, another equally cruel and luxurious prince, lay, according to some authors, under arbors of roses; and, according to others, on beds covered with these flowers. And finally, Carrius, another licentious and prodigal emperor, who reigned only a few months, caused roses to be scattered over the chambers of his palace, and on the couches upon which were placed his guests.

CHAPTER III.

THE ROSE, IN CEREMONIES AND FESTIVALS, AND IN THE ADORNMENT OF BURIAL PLACES.

AMONG the ancients, the Rose was conspicuous in all the sacred ceremonies, and in public and private fêtes. The Greeks and the Romans surrounded the statues of Venus, of Hebe, and of Flora, with garlands of roses. They were lavish of these flowers at the festivals of Flora; in those of Juno, at Argos, the statue of the Olympian Queen was crowned with lilies and roses. In the festivals of Hymen, at Athens, the youth of both sexes, crowned with roses and adorned with flowers, mingled in dances which were intended to represent the innocence of primeval times. At Rome, in the public rejoicings, they sometimes strewed the streets with roses and other flowers. It is thus that Lucretius gives a description of the manner in which was celebrated the festivals of Cybele.¹

To scatter flowers on the passage of the funeral procession of a private citizen, was an honor not common at Rome. Pliny informs us, however, that a Scipio, belonging to the illustrious family of that name, who while he was tribune, fulfilled

¹ "Ergo cum primum, magnas invecta per urbes
Munificat tacita mortales muta salute;
Ære atque argento, sternunt iter omne viarum.
Largifica stipe dilantes, ninguntque Rosarum
Floribus, umbrantes matrem comitumque catervas."

LUCRETIVS, lib. ii., ver. 625.

his duties to the satisfaction of the people, dying without leaving sufficient to pay his funeral expenses, the people voluntarily contributed to pay them, and on the appearance of the body, cast flowers upon its passage.

At Baïæ, when fêtes were given upon the water, the whole surface of the lake of LÛcina, appeared covered with roses.

The custom of encircling the head, of surrounding the neck, and also the breast with crowns and garlands of roses, on different occasions, and particularly during the last days of a gay festival, when, after the solid dishes, they passed to the dessert and the rare wines, is well known by the odes of Anacreon, and from the writings of several of the ancient poets.

The voluptuous Horace, when he abandoned himself to pleasures, was always supplied with roses. In congratulating one of his friends on his safe return from Spain, he recommended that these flowers should not be wanting at the festival. On another occasion, he told his favorite servant that he cordially disliked the pompous displays of the Persians, and escaped them by searching in what place the late Rose was found. Drawing a picture of luxurious ease for his friend Hirpinus, he speaks of "lying under the shade of a lofty Plane or Pine tree, perfuming our spotless hair with Assyrian spikenard, and crowning ourselves with roses." We can very well judge how general had become the custom of making crowns of roses, from the number of times which it is mentioned in Pliny, and the frequency with which Martial speaks of it in his epigrams. The latter author also informs us, that in the very height of Roman luxury and reveling, the most favorable time for soliciting and obtaining a favor was when the patron was entirely given up to the pleasures of the table and of roses.²

Whatever doubt may exist of the use of crowns of roses, as objects of luxury, it is well authenticated, that among medical

² "Hæc hora est tua, dum furit Lyæus
Cum regnat Rosa, cum madent capilli,
Tunc me vel rigidi legant Catones."

Lib. x., epig. 19.

men of antiquity, endeavors were made to determine what kinds of flowers were suitable to place in crowns without detriment to health; and according to the report made on this subject, the parsley, the ivy, the myrtle, and the Rose possessed peculiar virtues for dissipating the fumes of the wine. According to Athenæus, a crown of roses possessed not only the property of alleviating pain in the head, but had a very refreshing effect.

Pliny mentions two Greek physicians—Mnesitheus and Calimachus, who wrote on this subject.

The custom of crowning with roses had passed from the Greeks to the Romans, and it also existed among the Hebrews, who had probably borrowed it from some of the neighboring nations, either from the Egyptians, in the midst of whom they had spent many years, or from the Babylonians, with whom they had in the captivity much connection. The practice of this custom among the Israelites, is attested by the previously quoted passage, in the apocryphal "Wisdom of Solomon."

At Rome it was not only at the religious festivals that they crowned themselves with roses and other flowers, but it was the custom to wear these crowns during public and private fêtes; they were strictly forbidden at some other times, and above all on certain public occasions, where to appear with such an ornament, would pass for an insult to a public calamity. Pliny informs us, that during the second Punic war, which lasted sixteen years, a banker named Lucius Fulvius, for looking from his gallery on the Forum, and wearing a crown of roses on his head, was, by order of the Senate, sent to prison, from which he was not liberated until the end of the war.

This anecdote, moreover, proves that crowns of roses were in fashion at Rome at an early period, and before licentiousness and luxury had yet made many inroads upon the national character.

It may readily be supposed, that at Rome, under the emperors, the use of crowns of flowers was like every other species of luxury at that time, constantly on the increase. At first they wore the crowns interwoven with leaves of flowers, then they wore them

composed partly of roses, and finally they were not satisfied unless they consisted of these flowers only.

Martial, as we have already mentioned, speaks often of his crowns of roses. The crown sent by this poet to his friend Sabinus, was composed entirely of these flowers, and he was desirous that they should be considered the production of his own gardens.

From the poverty of Turkish history, little is known of the early use of the Rose among them. We have, however, some account of its use among the Mohammedan Persians.

Although wine was forbidden by the laws of Mahomet, the Persians frequently made use of it; and in the time of Tavernier and of Chardin, they frequently drank it to excess. One of their kings, Soliman III., was intoxicated almost every day; and it was the custom then in Persia, to serve the wine in crystal decanters, which, when the season permitted, they corked with roses.

The most interesting purpose to which roses were devoted, was the adornment of tombs and burial-places. The Greeks employed generally for this object, the myrtle and the amaranth; but the Romans gave the preference to the lily, the saffron-plant, and above all, the Rose.

The ancients were careful to renew the plants which were placed around the sepulchral urn, in order that it might be surrounded by a continual spring. These flowers were regarded as sacred, and as a relic of the deceased.

The Romans considered this pious care so agreeable to the spirits of the departed, that wealthy citizens bequeathed by will entire gardens, to be reserved for furnishing their tombs with flowers. They also often ordered that their heirs, or those to whom they left a legacy for the care of their ashes, should meet together every year, on the anniversary of their death, and dine near their tomb, scattering roses about the place. This custom is attested by several stories of ancient Roman tombs. One with an ancient inscription was found at Ravenna, and others in some other parts of Italy.

D'Orbessan, in his "*Essai sur les Roses*," mentions having

seen, at Torcello, a city about five miles from Venice, an inscription of this kind, mentioning a donation made by an emancipated slave to the assembly of the *Centum*, consisting of gardens and a building to be employed in celebrating his obsequies and those of his master. It requested that roses should not be spared, and that food should be then distributed in abundance. Generally, the donation made on condition of covering the funeral monument with roses, was transferred to another, if that condition was not fulfilled. Sometimes the most terrible maledictions threatened those who dared to violate these sacred gardens. That which proves how frequent among the Romans was this custom of ornamenting tombs with roses, is, that those who were not rich enough to make such bequests, often directed to be engraved upon the stone which covered their remains a request to the passers by to scatter roses upon their tomb. Some of these stones still exist, with the following inscription: "*Sparge, precor, Rosas supra mea busta, viator.*" It was, perhaps, because they compared the short duration of human life to the quick fading existence of the Rose, that this flower was devoted to the burial place of the dead; and there can certainly be chosen no more beautiful emblem of this transitory state of existence. This supposition is somewhat strengthened by the following passage from Jerome, one of the early Christian fathers:

"The ancients scattered roses over the urns of the deceased, and in their wills ordered that these flowers should adorn their graves, and should be renewed every year. It was also the custom for husbands to cast roses, violets and lilies on the urns which enclosed the ashes of their wives. These modest flowers were emblematic signs of their grief. Our Christians were content to place a Rose among the ornaments of their graves, as the image of life."

In Turkey, females that died unmarried had a rose sculptured at the top of their monument.

At the well-known cemetery of Père la Chaise, which has often excited the ecstasy, admiration or praise of many travelers, but which in reality exhibits neither elegance, sentiment nor taste, wreaths of roses and other flowers are frequently seen upon the thickly crowded tombs, either as mementos of affection, or in

compliance with a popular custom ; while the street leading to the cemetery is filled with shops in which are exposed for sale the wreaths of flowers.

The prevalence of the same custom in Denmark, is alluded to by Shakespeare, in *Hamlet*, in the scene of Ophelia's burial.

The custom still remains also in some parts of Great Britain. In Wales, when a young girl dies, it is customary for her female companions to bring flowers with them to her funeral, and place them in her coffin. They plant lilies and snow-drops over the graves of children, and wild and cultivated roses over those of adults.

Gwilym, a Welsh poet, thus speaks of the custom in one of his elegies :—" Oh ! while the season of flowers and the tender sprays, thick of leaves, remain, I will pluck the roses from the brakes, to be offered to the memory of a child of fairest fame ; humbly will I lay them on the grave of Ivor."

Evelyn tells us that "the white rose was planted at the grave of a virgin, and her chaplet was tied with white riband, in token of her spotless innocence ; though sometimes black ribands were intermingled, to bespeak the grief of the survivors. The red rose was occasionally used in remembrance of such as had been remarkable for their benevolence ; but roses in general were appropriated to the graves of lovers."

Drummond, the Scotch poet, requested one of his friends to have the following couplet placed over his grave :

" Here Damon lies, whose songs did sometimes grace
The murmuring Esk :—may roses shade the place."

The first Christians disapproved of the use of these flowers, either at their festivals or as ornaments for their tombs, on account of its connection with the pagan mythology, and the custom thus became extinct. Tertullian wrote a book against crowns and garlands. Clement of Alexandria thought it improper that Christians should crown themselves with roses. A little later, however, Christians relaxed from this strictness, and the Christian poet Prudence, did not fear to invite his brethren "to cover with violets and with verdure, and to surround with

perfumes those bones which the voice of the All-Powerful would one day restore to life."

The Roman Catholics of this day admit flowers to their churches and ceremonies, and on feast days they adorn the altars with bouquets and garlands. At the most imposing of these solemnities, the day of the "Fête-Dieu," rose petals, during the processions, are scattered in the air, and blended with the perfume of censers, directed towards the Host; in many of the towns, particularly those in the south of France and of Europe, the streets through which the procession passes are scattered throughout with fragrant herbs and flowers of every kind.

Since the extinction of paganism in a greater part of the world, the custom of wearing crowns of flowers at festivals has passed entirely away. Women only use roses as an ornament for their hair, or employ them in different parts of their toilet. In our own country the toilet of a bride is never considered perfect unless she wears a wreath of roses and other flowers, whose snow-white hue is an emblem of her departing maidenhood. Sometimes she is provided only with a bouquet of white roses and camellias, and her bridesmaids wear similar ornaments of nature's manufacture.

The Rose is abundantly used by children in their beautiful celebration of May-day. We well recollect our own enjoyment of one of these scenes some seven years since. We were returning from a ride in the vicinity of Charleston, S. C., on the first day of this, the sunniest of the months of Spring—a day dedicated not to the spirit of motion, and celebrated not by processions of furniture carts, amid the bustle and noise of a populous city, but dedicated there, at the sunny south, to innocent and joyous festivity, and celebrated amid all the fresh and fragrant luxuriance of southern vegetation, surrounded by the delicate sweetness of the magnolia, the Rose, and other flowers, while the mocking-bird, with its sweet and varied note, is the minstrel for the occasion. Riding quietly along the road, we were suddenly stopped by a procession which had just dismounted from a number of carriages in a beautiful grove hard by. It consisted

mostly of noble-looking boys and beautiful girls, of all ages under fourteen, the latter dressed in white and crowned with wreaths of roses and other flowers. The manly attention of the boys to the fair creatures with whom they walked hand in hand, would not have disgraced the gallantry of Bayard, or the politeness of Chesterfield. As the procession wound slowly from our view, under the shade of the lofty live oak and the rich magnolia, we could not help reflecting how beautiful was this graceful enjoyment of the sunny days of childhood, and how preferable to the mental excitement and precocious training of many of the infant philosophers of this most enlightened nineteenth century.

It is much to be regretted that in circles where fashion reigns supreme, nature is gradually giving way to art, and instead of the fresh and natural beauty of a newly-gathered Rose, various forms of artificial flowers are found upon the center table, or in the hair of those whose quick discernment and refined taste should lead them to perceive the great inferiority of these artificial toys to the delicate beauty and welcome fragrance of a Rose just from its parent plant.

Very much additional matter could be inserted respecting the early history of the Rose, and its connection with ancient superstitions. Sufficient, however, has been given to show the esteem in which the Rose was held by the ancient Greeks and Romans.

CHAPTER IV.

THE ROSE IN THE MIDDLE AGES.

N Great Britain, according to Loudon, "one of the earliest notices of the Rose occurs in Chaucer, who wrote early in the 13th century; and in the beginning of the 15th century, there is evidence of the Rose having been cultivated for commercial purposes, and of the water distilled from it being used to give a flavor to a variety of dishes, and to wash the hands at meals—a custom still preserved in some of the colleges, and also in many of the public halls within the city of London."

In 1402, Sir William Clopton granted to Thomas Smyth a piece of ground called Dokmedwe, in Haustede, for the annual payment of a rose to Sir William and his heirs, in lieu of all services. The demand for roses formerly was so great, that bushels of them were frequently paid by vassals to their lords, both in England and France. The single rose, paid as an acknowledgment, was the diminutive representation of a bushel of roses—as a single peppercorn, which is still a reserved rent, represents a pound of peppercorns—a payment originally of some worth, but descending by degrees to a mere formality. Among the new-year gifts presented to Queen Mary in 1556, was a bottle of rose-water; and in 1570 we find, among the items in the account of a dinner of Lord Leicester, when he was Chancellor of the University of Oxford, three ounces of rose-water. In an account of a grant of a great part of Ely House, Holborne, by the Bishop of

Ely, to Christopher Hatton, for twenty-one years, the tenant covenants to pay, on midsummer-day, a red rose for the gate-house and garden, and for the ground (fourteen acres) ten loads of hay and £10 per annum; the Bishop reserving to himself and successors free access through the gate-house, for walking in the gardens and gathering twenty bushels of roses yearly. In 1597, we find Gerard speaking of the Damask rose of Damascus and the Cinnamon rose as common in English gardens. Hakluyt says that the rose of Damascus was brought to England by De Linaker, physician to Henry IX.; and his successor, Sir Richard Weston, who wrote in 1645, says, "We have red roses from France." In the reign of James I., the keeper of the robes and jewels at Whitehall, among a variety of other offices, had separate salaries allowed him, "for fire to air the hot-houses, 40s. by the year;" and, "for digging and setting of roses in the spring gardens, 40s. by the year."

It would seem, by these incidents, that previous to the seventeenth century, roses were far from being abundant, and indeed were so rare, that a bottle of distilled water was a fit present for Royalty, and a few roses an amply sufficient rent for house and land.

In the times of chivalry, the Rose was often an emblem that knights were fond of placing in their helmet or shield, implying that sweetness should always be the companion of courage, and that beauty was the only prize worthy of valor. It was not, however, always taken for such emblems, nor did it always bring to mind pleasant and agreeable images, but was often the signal for bloodshed in a desolating civil war which raged in England for more than thirty years.

The rival factions of the *White* and the *Red* Rose arose in 1452, during the reign of Henry VI., between the houses of Lancaster and of York. The Duke of York, a descendant of Edward III., claimed that his house possessed a nearer title to the crown than the reigning branch. He adopted a *white* rose on his shield, for his device, and the reigning monarch, Henry VI., of the house of Lancaster, carried the *red* rose. After sev-

eral furious civil wars, after having flooded the whole kingdom with blood, and after the tragical death of three kings, Henry VII., of the house of Lancaster, re-united, in 1486, the two families by marrying Elizabeth, the heiress of the house of York.

The adoption of the red rose, by the house of Lancaster, was at a period far prior to these civil wars. About 1277, the Count of Egmont, son of the King of England, and who had taken the title of Count of Champagne, was sent by the King of France to Provence, with some troops, to avenge the murder of William Pentecôte, mayor of the city, who had been killed in an insurrection.

When this prince returned into England, after executing his orders, he took for his device the red rose, that Thibaut, Count of Brie and of Champagne, had brought from Syria, on his return from the crusade some years before.—That Count of Egmont was the head of the house of Lancaster, who preserved the red rose on their arms, while the house of York, on the other hand, adopted the white rose as their device.

An anecdote is told of the Prince of Bearne, afterwards Henry IV. of France, who was not 15 years of age when Charles IX. came to Nerac, in 1566, to visit the court of Navarre.

The fifteen days that he spent there, were marked by sports and fêtes, of which, the young Henry was already the chief ornament. Charles IX. loved to practice archery; in providing for him that amusement, they thought that none of his courtiers, not even the Duke of Guise, who excelled at this sport, would venture to prove himself more adroit than the monarch. The young Henry, however, advanced, and at the first shot, carried off the orange, which served for a mark. According to the rules of the sport, he wished, as victor, to shoot first in the next trial; the King opposed it, and repulsed him with warmth; Henry stepped back a little, drew his bow, and directed the arrow against the breast of his adversary; the monarch quickly took shelter behind the largest of his courtiers, and requested them to take away "that dangerous little cousin." Peace being made, the same sport was continued on the following day; Charles found an

excuse for not coming. This time the Duke of Guise carried away the orange, which he split in two, and no other could be found for a mark.

The young prince perceived a Rose in the bosom of a young girl among the spectators, and seizing it, quickly placed it on the mark. The Duke shot first, and missed; Henry succeeding him, placed his arrow in the middle of the flower, and returned it to the pretty villager with the victorious arrow which had pierced its stem.

At Salency, a village of France, the Rose is the reward of excellent traits of character; they attribute the origin of the fête of La Rosière, in that country, to Medard, bishop of Noyon, who lived at the end of the fifteenth, and beginning of the sixteenth century, during the reign of Clovis. That bishop, who was also Lord of Salency, had established a fund, giving a sum of twenty-five livres (five dollars), and a crown or hat of roses to the young girl on his estate, who enjoyed the greatest reputation for amiability and excellence of character. Tradition states that the prelate himself gave this desired prize to one of his sisters, whom the public voice had named to be Rosière. Before the revolution of 1789, there could be seen, beneath the altar of the chapel of St. Medard, at Salency, a tablet, where that bishop was represented in pontifical dress, and placing a crown of roses on the head of his sister, who was on her knees, with her hair dressed.

The bishop had set aside, on a part of his domain, since called the "Manor of the Rose," an annual rent of twenty-five livres, at that time a considerable sum, for paying all the expenses of this ceremony. It is stated that Louis XIII., being at the chateau of Varennes, near Salency, about the time of this ceremony, was desirous of adding to its éclat by his personal presence; but finding himself indisposed, he sent to La Rosière, by a marquis of rank and first captain of his guards, a ring and his blue riband. "Go," said he to the marquis, "and present this riband to her who shall be crowned. It has been long the prize of honor; it shall now become the reward of virtue." Since that time La

Rosière has received a ring, and she and her companions have worn the blue riband.

The Lord of Salency at one time enjoyed the right of choosing La Rosière from three of the village girls, who were presented by the inhabitants. But in 1773 a new lord, who purchased the estate of Salency, wished to take away the right enjoyed by the inhabitants, of naming and presenting to him the three candidates for the Rose. He assumed the nomination of La Rosière, without any assembling, election, or presentation, and suppressed entirely the pomp and ceremonies which until that time had always been observed. On the complaint of the inhabitants of Salency, the Court of Chancery at once set aside the pretensions of their lord; but he, not wishing to yield them, instituted a civil process before the Parliament of Paris, which gave a decree in favor of the inhabitants of the place, by which it confirmed to them all the ancient customs of the fête of La Rosière, of which the Lord of Salency was ordered to pay all the expenses.

The ceremony of La Rosière was suppressed during the excesses of the Revolution, but was again re-established when the times had become more quiet. The celebration takes place in the first summer month, and would be well worthy the attendance of foreign travelers.

We have mentioned this custom very much in detail, as it is one of the few ceremonies still existing, in which the Rose occupies a prominent position, and is made alone the reward of merit. Other festivals of the Rose, similar to those of Salency, were established in several other villages of France and the neighboring countries. When Louis XVIII. was staying at Blakenbourg, in Germany, during the years of his exile, he was invited to assist at a festival of La Rosière. When he had placed the crown on the head of the young girl who was designated as the most virtuous, she said to him, ingenuously, "My Prince, may *your* crown be restored you."

There exists a touching custom in the valley of Engadine, in Switzerland. If a man accused of a crime is able to justify himself the same day on which he is liberated from prison, a

young and beautiful girl offers him a white rose, called the Rose of Innocence.

It is somewhat singular that, although the Rose was in these instances employed as the emblem of virtue and innocence, it has been considered, at other times and places, as a sign of disgrace and dishonor.

The synod held at Nismes, about the year 1284, ordered the Jews to wear on their breast a rose to distinguish them from Christians, in order that they might not receive the same attentions. At one time, in certain German provinces, a crown of red roses was the punishment of immorality.

It appears that, in the middle ages, roses were much more abundantly cultivated in certain provinces than they have been since ; for the following passage is found in Marchangy's History of France in the 14th century : " For the ornament of certain festivals, they cultivate, in the vicinity of Rouen, fields of flowers of several roods ; and the annual sale of bouquets and wreaths of roses is valued at 50,000 francs. The business of *maker of wreaths*, and that of *rose merchant*, is in France very common and very profitable. The above sum will not seem surprising, when we think of the enormous consumption of rose-water at that time. In all family parties, companies and associations, many bouquets were presented ; at table, during festivals, they crowned themselves with flowers, and scattered them on the table-cloth and the floor."

The Marquis de Chesnel, in his History of the Rose, mentions that, among the old customs of Auvergne, Anjou, Tours, Lodunois, and Maine, there was one in the noble families, that a father who had sons, frequently gave to his daughters, on their marriage, only a wreath of roses. In Normandy, also, the daughters received, for their legitimate portion, a hat adorned with the same flowers. Among the ancient seignorial rights in France, in the 14th century, was one by which each tenant was obliged to furnish a bushel of roses for the manufacture of rose-water for the lord of the soil. Madame de Genlis mentions, however, that about the same period, every one was not allowed to cultivate

these flowers ; but permission to do so was granted to privileged persons. Whether it was ever a royal monopoly she does not state ; but it would certainly be no more singular than the monopoly of the sale of butter by the King of Naples at the present day.

We have already mentioned the wars of the White and Red Rose, which during so long a time deluged England with blood. There is also an instance in French history, where this flower, associated as it is with innocence and pleasant thoughts, served, under the reign of Charles VI., as the rallying sign of the faction of Burgundy against that of Armagnac. The Parisians, urged by the agents of the Duke of Burgundy, established the order of St. André for their partisans, in order to manage them more easily ; and the church of St. Eustache was chosen as their rendezvous. Each church member wore a crown of red roses, of which more than seven hundred were made in the space of twelve hours, and the flowers were sufficiently abundant to perfume the whole church.

According to an ancient custom, the dukes and peers of France were formerly obliged to present roses to the Parliament of Paris, at certain periods of its session. The peer who was chosen to do the honors of this ceremony, caused all the chambers of Parliament to be scattered with roses, flowers, and fragrant herbs ; and entertained at a splendid breakfast the presidents, councilors, and even the notaries and door-keepers of the court. He afterwards went into each chamber, accompanied by a page with a large silver basin, which contained as many bouquets of roses and other flowers as there were public officers, with an equal number of crowns composed of the same flowers. The Parliament also had its cultivator of roses, called the *Rosier de la Cour*, from whom the peers could obtain the roses for their presents.

Under the reign of Francis I., in 1541, there was a dispute between the Duc de Montpensier and the Duc de Nevers respecting the presentage of the roses to Parliament. It was decided that the Duc de Montpensier, from his rank as prince of the

blood, should be entitled to the first presentage. Among the princes of the royal family who submitted to this ceremony at later periods, are numbered the dukes of Vendome, Beaumont, Angouleme, and several other distinguished names. Henry IV., while only King of Navarre, proved to the procureur-general that neither he nor his predecessors had ever failed to perform that duty.

About the year 1631, there was published a very curious book on the Rose, by a German named Rosenberg. About 250 octavo pages are devoted entirely to the praise of the curative properties of the Rose in almost every known disease, making, in fact, this flower a universal panacea for the many ills to which flesh is heir. The author also claims for it supernatural qualities, particularly for driving away evil spirits. The work closes by asserting, as a positive fact, supported by several authorities which he quotes, the remarkable regeneration or resurrection of the Rose. He gives also the process of this reproduction, which is scarcely worth inserting here, being, like the story of the Phœnix, a fable engendered by superstition upon ignorance. It is somewhat surprising that this fable should have been very gravely reproduced, in a French work on the Rose, published in 1800. The author states that, "notwithstanding the many marvelous things which we already know respecting the improving, forcing, changing, and multiplying of roses, we have yet to describe the most surprising of all—that of its regeneration; or, in other words, the manner of reproducing that flower from its own ashes. This is called the *imperial secret*, because the Emperor Ferdinand III. purchased it of a foreign chemist, at a very high price." The conclusion is a rather amusing instance of Munchausenism in the 19th century. "Finally, all this material being placed in a glass vessel, with a certain quantity of pure dew, forms a blue powder, from which, when heat is applied, there springs a stem, leaves, and flowers, and a whole and perfect plant is formed from its own ashes."

It is difficult to credit the fact that, in any part of this enlightened age, an author could be found who would gravely

and in sincerity advance such opinions and state such facts as the above ; and it is but an additional proof, if such were wanting, that nothing can be advanced too monstrous or too incredible to be entirely without believers.

If the sight of roses, or their delicate fragrance, has been generally delightful and pleasing, there have also been those who could not endure them. Anne of Austria, wife of Louis XIII., of France, although otherwise very fond of perfumes, had such an antipathy to the rose, that she could not bear the sight of one even in a painting. The Duke of Guise had a still stronger dislike, for he always made his escape at the sight of a rose. Dr. Ladelius mentions a man who was obliged to become a recluse, and dared not leave his house, during the season of roses ; because, if he happened to imbibe their fragrance, he was immediately seized with a violent cold in his head.

The odor of the rose, like that of many other flowers, has often occasioned serious injury, particularly in closed apartments ; and no one should venture to sleep with them in his chamber. Some authors of credibility mention instances of death caused by a large quantity of roses being left during the night in a sleeping apartment. Thus it is, that the most beautiful things in life contain the elements of death.

CHAPTER V.

PERFUMES OF THE ROSE.

At an early period in the cultivation of the Rose, and after its admission among the luxuries of the wealthy, human skill was exerted to extract its delightful perfume.

Several authors have considered the invention of the essence of the Rose very ancient, and have even traced it back as far as the siege of Troy. This however can scarcely be admitted, for nothing relating to the essence, or essential oil of roses can be found in Homer, or in any other author for many subsequent years. The discovery of these valuable articles of commerce was made at a much later period. If the essential oil of roses had been known to the ancient Greeks or Romans, it would probably have been more particularly mentioned by Pliny, and the mode of preparation even would have been described. In speaking, however, of various perfumes, he says nothing of any distillation from the petals of the Rose, but simply mentions that as early as the siege of Troy, the *expressed* juice of roses was known, and being mixed with a delicate oil, formed an agreeable perfume.

In speaking of artificial oils in general, Pliny also observes that the oil of roses was made by simply steeping the rose-petals in oil. According to the same author, oil was the body of nearly all the perfumes used at that day, and for a perfuming substance

roses were most frequently used, because they grew everywhere in the greatest abundance.

Perfumes of every kind were more abundantly used among the ancient Greeks and Romans, than at the present day. Athenæus, in his *Feast of Wise Men*, states that nearly all of these were drawn from the Rose, and says that the most sweet were those of Cyrene, while those of Naples, Capua, and Faseoli, were the best and most delightful of all.

This agrees with the subsequent researches made on the same subject, by D'Orbessan. "The cities of Naples, Capua, and Preneste," says the latter, "obtained their roses from Campania, where there is yet a considerable tract of land, commonly called *Il mazzone delle Rose*.

"This field is sometimes called *Rosetinus*, on account of the prodigious quantity of roses which grow there without culture, and in greater abundance than in any other section of that country."

Athenæus states that the perfume of roses was frequently used in culinary preparations, and gives a curious receipt for a sort of *pot-pourri*, made by the cook of the King of Sicily. "This is what I call *potted roses*, and it is thus prepared: I first pound some of the most fragrant roses in a mortar; then I take the brains of birds and pigs, well boiled and stripped of every particle of meat; I then add the yolks of some eggs, some oil, a little cordial, some pepper, and some wine: after having beaten and mixed it well together, I throw it in a new pot, and place it over a slow, but steady fire." "As he said these things," so runs the story, "the cook uncovered the pot, and there issued forth a most delicious fragrance, perfuming the whole dining-hall and overcoming the guests with delight." This is a point in gastronomic luxury to which Americans have not yet attained.

Although the perfume of roses was considered more choice than any other, it was frequently used when men were least in the state to enjoy it; for D'Orbessan states that slaves were made to burn it around their masters while sleeping.

If the essential oil of roses was known in the time of Pliny,

that author would have mentioned it among the most esteemed and precious perfumes. So far from this, however, he only speaks of the "Royal Perfume," so called because it was prepared expressly for the King of the Parthians. This was composed of the oil of Ben, an Arabian tree, with several aromatic substances. According to Langles, who has carefully examined a great number of oriental works, no writer previous to the 16th century has mentioned the essential oil of roses, although these flowers abounded at that time, and mention is made of rose-water as an agreeable perfume. Besides these negative proofs against the ancient existence of this perfume, Langles quotes several oriental historians, from which it seems evident that its discovery dates about the year 1612, and was owing entirely to accident.

According to Father Catron, in his *History of the Mogul Empire*, in the fêtes which the sultana Nourmahal gave to the great Mogul Jehan-guire, their chief pleasure was sailing together in a canal which Nourmahal had filled with rose-water.

One day that the Emperor was thus sailing with Nourmahal, they perceived a sort of froth forming and floating upon the water. They drew it out, and perceived that it was the essential oil which the heat of the sun had disengaged from the water and collected together on the surface. The whole seraglio pronounced the perfume the most exquisite known in the Indies; and they immediately endeavored to imitate by art that which nature had made. Thus was discovered the essence, essential oil, otto or attar of roses.

According to Langles, the word *A'ther*, *A'thr* or *Othr*, which the Arabs, Turks, and Persians use to designate the essential oil of Roses without adding the name of that flower, is Arabic, and signifies perfume. It is necessary, the same author states, to recollect the distinction between *A'ther* or *A'ther gul* and *gulab*, which is simply rose-water.

From the very small quantity congealed on the surface of the water, the manufacture is limited and the cost of the article immense. Langles states that the rose-water is left ex

posed to the freshness of the night, and in the morning a very small quantity of attar is found collected on the surface.

Dr. Monro, according to Loudon, gives the manner of making the attar in Cashmere, which is apparently more simple, without the tedious process of distilling.

"The rose-petals are put into a wooden vessel with pure water, and exposed for several days to the heat of the sun. The oily particles being disengaged by the heat, float upon the surface of the water, whence they are taken up from time to time, by applying to them some very fine dry cotton wool. From this wool the oil is pressed into little bottles, which are immediately afterwards sealed hermetically."

Another method is, exposing the rose water to strong heat, then suddenly cooling it, and collecting the drops of congealed oil which float upon the surface.

Bishop Heber describes the method used in India, which is very similar to that of Langles. The attar has the consistency of butter, and never becomes liquid except in the warmest weather.

Loudon states that "a wretched substitute for otto of roses, is said to be formed by the apothecaries of Paris. The petals of *Rosa damascena* are boiled in a large caldron of water, along with as much hog's lard as will cover its surface with a thin stratum of grease. The oil of the rose-petals, on separating from them by boiling, unites with this grease, from which it is again separated by spirits of wine." A large portion of the attar imported into the United States is probably of this manufacture; and the corn-fed animals of the West yield a part of their unctuous bodies to be sent to France, and returned to us in a shape fit for the lady's handkerchief or boudoir.

The quantity of genuine attar produced from a given weight of rose-petals is not always the same; it is very liable to vary according to the nature of the climate, the temperature of different seasons, the period of bloom at which the roses are picked, the process of manufacture, and the skill of the manufacturers. Generally a hundred pounds of roses will scarcely produce a drachm of attar, sometimes only half a drachm, and at others a

drachm and a half. Bishop Heber states that in India, at Ghazepoor, two hundred thousand well grown roses are required to produce one rupee's (165 grains) weight of attar. The calyx is sometimes used with the petal, but as the oil of that contains little or no perfume, although it may increase the quantity of attar, it must sensibly weaken its properties.

The color of attar is generally green, sometimes lemon or rose color, and occasionally brownish. These differences in color are owing to the various processes of manufacture, and the different periods at which the roses are picked. The attar is prepared in Barbary, Syria, Arabia, Persia, India, in the island of Scio, at Fayoum in Egypt, at Tunis, and many other places in the East. That made in Syria and Barbary is considered very inferior; while the best is made in Chyras, Kerman, and Cashmere. In some parts of France and Italy, it is also prepared, but in comparatively small quantities.

The attar is very costly, although not so dear as formerly. The French traveler Tavernier, who visited Ispahan about the year 1666, stated that the price of attar at Chyras rose and fell every year, on account of the unequal produce of flowers; and that an ounce of that article sold at one period for ten tomans (about 92 dollars).

At the time another Frenchman, Chardin, traveled in Persia, some years after Tavernier, the attar was sometimes much higher. He states that forty pounds of rose-water were required to produce half a drachm of attar, an ounce of which sometimes sold in India for 200 ecus. Langles states that in India, half an ounce of attar is worth about forty dollars. Bishop Heber also speaks of its enormous price at Ghazepoor, where the variation in price is also very great, being, according to Langles, sometimes as low as eight dollars an ounce.

At one time, soon after its discovery, it was valued at about five times its weight in gold. Until quite recently it was worth its weight in gold, but now sells in Paris for about one quarter that value.

Attar is rarely found pure in commerce; it is always more or

less adulterated. In the countries where it is manufactured, they frequently increase the quantity of the attar, by mixing scrapings of sandal-wood with the rose-petals during the process of distillation. Kämpfer, a German writer, states this mode of adulteration to have been known a long time, and adds that the sandal-wood gives additional strength to the attar; but another author, who has also made some researches on the subject, asserts that the sandal-wood injures the delicacy of the attar, which is more sweet and agreeable when mild, than when strong.

The quality, as well as the quantity of attar, which they obtain from roses, depends upon the proportion of aroma which they contain; and this is found more developed at the south and in a warm climate. The kinds of roses used in distillation have also a great influence on the quality of the attar. In Persia and the East, the Musk Rose is generally used; and the Damask is employed in France.

Although roses are distilled in large quantities at Paris, for perfumery and for medical purposes, very little attar is made, because the proportion of the manufactured article to the roses required, is in that climate extremely small; so small in fact, that, according to one writer, five thousand parts in weight of rose-petals, will scarcely produce one part of essential oil. This limited manufacture exists only at Grasse and Montpellier in France, and at Florence in Italy.

Some years since, the adulteration of attar was successfully practised in the south of France, by mixing with it the essence distilled from the leaves of the Rose Geranium (*Pelargonium odoratissimum*). This adulteration is very difficult to detect, because, this last essence possesses the same properties as the attar; its odor is almost the same—like that, it is of a lemon color, it chrystalizes at a lower temperature, and its density is very little greater.

The attar, when pure, is, beyond comparison, the most sweet and agreeable of all perfumes. Its fragrance is the most delicate conceivable, and equals that of the freshly expanded Rose. It is

also so strong and penetrating, that a single drop, or as much as will attach itself to the point of a needle, is sufficient to perfume an apartment for several days; and if the small flask in which it is sold, although tightly corked and sealed, is placed in a drawer, it will perfume all the contents.

When in a congealed or chrystalized state, the attar will liquify at a slight heat, and if the flask is merely held in the hand, a few minutes will suffice to render it liquid. In the East, much use is made of the attar, particularly in the harems. In Europe and America, it is employed in the manufacture of cordials and in the preparation of various kinds of perfumery.

Rose-water, or the liquid obtained from rose-petals by distillation, is very common, and is found in almost every country where the arts and luxuries of life have at all advanced.

Pliny tells us, that rose-water was a favorite perfume of the Roman ladies; and the most luxurious used it even in their baths. This, however, must have been some preparation different from that now known as rose-water, and was probably a mere tincture of roses.

The ancients could have known nothing of rose-water, for they were entirely ignorant of the art of distillation, which only came into practice after the invention of the alembic by the Arabs. Some attribute this discovery to Rhazes, an Arabian physician who lived in the early part of the tenth century; and others attribute it to Avicenna, who lived at Chyras, in the latter part of the same century. It is also attributed to Geber, a celebrated Arabian alchemist, who lived in Mesopotamia in the eighth century. Subsequent, therefore, to this discovery of the alembic, we find, according to Gmelin, in his history of the preparation of distilled waters, that the first notice of rose-water is by Aben-Zohar, a Jewish physician, of Seville, in Spain, who recommends it for diseases of the eye. From the Arabs this invention passed among the Greeks and Romans, as we are informed by Actuarius, a writer of the eleventh or twelfth century.

In France, the first distillation of rose-water appears to have

been made by Arnaud de Villeneuve, a physician, who lived in the latter part of the thirteenth century.

The Orientals made great use of this water in various ways in their houses, and in the purification of their temples, when they thought they had been profaned by any other worship than that of Mahomet. There are many anecdotes told by historians, of the use of rose-water by the Sultans on various occasions; and several of these, as Chateaubriand remarks, are stories worthy of the East. It is related of Saladin, that when he took Jerusalem from the Crusaders, in 1187, he would not enter the Mosque of Omar, which had been converted into a church by the Christians, until the walls and courts had been thoroughly washed and purified with rose-water brought from Damascus. Five hundred camels, it is stated, were scarcely sufficient to convey all the rose-water used for this purpose. An Arabian writer tells us, that the princes of the family of Saladin, hastening to Jerusalem to worship Allah, Malek-Abdul and his nephew, Taki-Eddin, distinguished themselves above all others. The latter repaired with all his followers to the "Chapel of the Holy Cross," and taking a broom himself, he swept all the dirt from the floor, washed the walls and the ceiling several times with pure water, and then washed them with rose-water; having thus cleansed and purified the place, he distributed large alms to the poor.

Bibars, the fourth Sultan of the Mameluke dynasty, who reigned from 1260 to 1277, caused the Caaba of the temple of Mecca to be washed with rose-water.

Mahomet II., after the capture of Constantinople, in 1453, would not enter the Mosque of St. Sophia, which had been formerly used as a church, until he had caused it to be washed with rose-water.

It is stated by a French historian, that the greatest display of gorgeous magnificence at that period, was made in 1611, by the Sultan Ahmed I., at the dedication of the new Caaba, which had been built or repaired at his expense; amber and aloes were burnt in profusion, and, in the extravagance of eastern language,

oceans of rose-water were set afloat, for washing the courts and interior surface of the walls. Rose-water is by no means so generally used now, as for a few hundred years subsequent to its invention. In France, during the reign of Philip Augustus, it was a necessary article at court. It was formerly the custom to carry large vases, filled with rose-water, to baptisms. Illustrating this custom, Bayle relates a story of Rousard, the French poet: "It nearly happened that the day of his birth was also that of his death; for when he was carried from the Chateau de La Poissonnière to the church of the place, to be baptized, the nurse who carried him carelessly let him fall; his fall, however, was upon the grass and flowers, which received him softly; it so happened that a young lady, who carried a vase filled with rose water, and a collection of flowers, in her haste to aid in helping the child, overturned on his head a large part of the rose-water. This incident was considered a presage of the good odor with which France would one day be filled, by the flowers of his learned writings."

At one time rose-water was largely consumed in the preparation of food, and the seasoning of various dishes. In the "Private life of the French," it is mentioned that in the fourteenth century, the Comte d'Etampes gave a feast, in which a large part of the dishes, and even the chestnuts were prepared with rose-water. It is still used to flavor various dishes, but its principal use is in affections of the eyelids, or as a perfume for the toilet. The principal consumption of rose-water is however in the East, where the inhabitants are very fond of perfumes. In Persia a very large quantity is made annually, for domestic use. They deem it an excellent beverage mixed with pure water.

The Corinth Grape, mixed with rose-water, and a slight infusion of spices, is the nectar so much in vogue among the Greeks of Morea. The Persians, according to Lebruyne, sprinkle with rose-water those who visit them. They also make it an important article of commerce; large quantities are sent to different parts of the East, and entire cargoes are sometimes shipped to India.

In Egypt, the nobles and wealthy inhabitants consume large quantities of rose-water; they scatter it over their divans, and other places where they spend their time; they also offer it with confectionary, to their visitors.

The custom of offering rose-water to a guest, is alluded to by Shakspeare, who makes one of his characters in Padua say :

“What is it your honor will command?
Let one attend him with a silver bason
Full of *rose-water*, and bestrewed with flowers.”

Almost all the rose-water used in this country is distilled in the province of Fayoum, from the pale rose. “About the middle of February, in Fayoum,” says a French writer, “they pluck the roses every morning before sunrise, while the dew is yet upon them; they then place them immediately in the alembic, not allowing them to become dry or heated by remaining too long a time without distillation. This lucrative branch of manufacture has not escaped the monopoly of Mehemet Ali. No private individual can now distil roses in Egypt, and those who cultivate them are obliged to sell the petals to government at a low price. The value of all the rose-water distilled in Fayoum, annually, is estimated at 50,000 or 60,000 francs.” Of the profusion with which rose-water is used in India, some idea may be formed from the narrative of Bishop Heber, who was shown, in the ruins of the palace of Ghazepoor, a deep trench round an octagonal platform of blue, red, and white mosaic pavement. This trench, he was told, was filled with rose-water when the Nawâb and his friends were feasting in the middle. “The ancient oil of roses,” according to Loudon, “is obtained by bruising fresh rose-petals, mixing them with four times their weight of olive oil, and leaving them in a sand-heat for two days. If the red Rose de Provins is used, the oil is said to imbibe no odor; but if the petals of pale roses are employed, it becomes perfumed. This preparation was celebrated among the ancients. Pliny says that, according to Homer, roses were macerated for their oil in the time of the Trojans. The oil is chiefly used for

the hair, and is generally sold in perfumers' shops, both in France and England, under the name of *l'huile antique de Rose*."

Spirit of roses is made by distilling rose-petals with a small quantity of spirits of wine, and forms an agreeable article for external applications. The green leaves of the sweet briar are sometimes, in France, steeped in spirits of wine, to impart a fragrance; and in England they are frequently used to flavor cow-slip wine.

As the petals of the rose preserve their fragrance for a long time after being dried, many are in the habit of making annually little bags filled with them. These, being placed in a drawer or wardrobe, impart an agreeable perfume to the linen or clothing with which they may come in contact. The petals can be obtained from almost any garden, in sufficient quantity for this purpose, and can be dried by the process mentioned hereafter. The confectioners, distillers, and perfumers, of France, draw from the Rose the greater part of their perfumes, particularly from *damascena* and *centifolia*, in fixing their sweet odors in sugar-plums, creams, ices, oils, pomatum, essences, and fragrant powders.

The petals of the Rose, after being freshly picked and bruised in a marble mortar, until they are reduced to a sort of paste, are employed in the preparation of different kinds of confectionary. Of this paste the French also make little perfume balls, of the size of a pea. They are made round in the same manner as pills, and before becoming hard, they are pierced with a needle and thread on a piece of silk. In a little while they become hard like wood, assume a brownish color, and emit a delightful perfume. This rose scent continues very long, and one writer remarks, that he has known a necklace, made in this style, possess, at the end of 25 years, as strong a perfume as when first made.

In Great Britain, in the vicinity of the large cities, and in many private gardens, the flowers are gathered for making rose-water or for drying as perfumes. In Holland, the Dutch *hundred-leaved* and common *cabbage-rose* are grown extensively at Noordwich, between Leyden and Haarlem, and the dried leaves

are sent to Amsterdam and Constantinople. In France, the Provins Rose is extensively cultivated near the town of Provins, about 60 miles south-east of Paris, and also at Fontenay aux Roses, near Paris, for the manufacture of rose-water, or for exportation in a dried state. The petals of the Provins Rose (*Rosa gallica*) are the only ones that are said to gain additional fragrance in drying; all the other varieties losing in this process more or less of their perfume. A French writer states, that apothecaries employ both pale and red roses; the pale give the most perfume, while the red keep the longest.

Loudon states, that "the petals of roses ought always to be gathered as soon as the flower is fully expanded; and the gathering should never be deferred until it has begun to fade; because, in the latter case, the petals are not only discolored, but weakened in their perfume and their medical properties. They should be immediately separated from the calyx, and the claws of the petals pinched off; they are then dried in the shade, if the weather is dry and warm, or by a stove in a room, if the season is humid; care being taken, in either case, not to spread them on the ground, but on a platform raised two or three feet above it. The drying should be conducted expeditiously, because it has been found that slowly dried petals do not exhale near so much odor as those which have been dried quickly; which is also the case with hay, sweet herbs, and odoriferous vegetables generally. After the petals are dried, they are free from any sand, dust, or eggs of insects, which may adhere to them, by shaking them and rubbing them gently in a fine seive. After this the petals are put into close vessels, from which the air is excluded, and which are kept in a dry, airy situation.

"As it is extremely difficult to free the rose-petals entirely from the eggs of insects, they are taken out of these vessels two or three times a year, placed in sieves, rubbed, cleaned, and replaced."

I have been careful to give the details of the above process, because it may be useful to those who embark extensively in the cultivation of roses, for the exportation of petals in a dried state. Judging from facts in vegetable physiology, we should

suppose that rose-petals produced in this latitude, where the Rose has a long period of hibernation, would produce more perfume and be more valuable in a dried state than those grown under the tropics. The Provins and Damask Rose are both known to succeed well here and to produce abundant flowers. Their fragrance is unsurpassed, and our summer's sun would be abundantly sufficient to dry the petals without any artificial heat. It is not too much to hope that the attention of our cultivators may yet be directed to this subject, and that the manufacture of rose-water and the preparation of dried petals may yet be an important branch of domestic industry, and form an important addition to the list of exported articles.

CHAPTER VI.

THE MEDICAL PROPERTIES OF THE ROSE.

WE have hitherto viewed the Rose as the chief ornament of our gardens, and if we have found it abounding with charms of fragrance and beauty, we shall now find it occupying a prominent place in materia medica. Some authors have, with a degree of exaggeration, endeavored to make its medical as brilliant as its floral reputation. Rosenberg, in his work on the Rose, makes it a specific in every disease, and even attributes to it supernatural virtues.

In the opinion of most medical men, the medical properties of the Rose are about the same in all the kinds, while some writers assert that the *Rosa gallica* is superior to all others in a greater or less degree. We will mention those principally used in medicine, and the properties which are especially attributed to each.

The most valuable properties of the Rose reside in its petals, and in order to preserve these properties, it is highly essential that the petals should be quickly and perfectly dried. Those of the Provins Rose (*Rosa gallica*) have an astringent and somewhat bitter taste, and are tonic and astringent in their effects.

According to an analysis recently made in France, they contain, besides vegetable matter and essential oil, a portion of gallic acid, coloring matter, albumen, tannin, some salts, with a base of potash or of chalk, silex and oxyde of iron. A small dose in powder strengthens the stomach and assists digestion. Their pro-

longed use will sometimes cause a slight constipation of the bowels, while in a much stronger dose they act as purgatives.

The *conserve* of the Provins Rose has much reputation in France, for the treatment of all chronics and affections of the bowels, caused by weakness and inactivity of the digestive organs; it is also employed in colic, in diarrhœa, in cases of hemorrhage and leucorrhœa.

The conserve of any variety of roses is considered excellent in cases of cold or catarrh. It is prepared by bruising in a mortar the petals with their weight in sugar, and moistening them with a little rose-water, until the whole forms a homogeneous mass. Some receipts prescribe powdered petals mixed with an equal part of sugar; others direct to use two layers of sugar and only one layer of pulverized petals.

Opoix, a physician of Provins, states that the true Rose of Provins has a more sweet and penetrating fragrance than the same rose grown elsewhere, and even goes so far as to say that they have acquired properties which they do not possess in their native country, the Caucasus. On account of the supposed superior qualities of this rose, the citizens of Provins, in 1807, addressed a petition to government to encourage in their territory the cultivation of the true Provins Rose, by giving it the preference in all the hospitals and military dispensaries. This gave rise to a discussion between two French chemists, but without deciding the fact whether the *Rosa gallica* was superior in medical properties to any other rose. It seems to be acknowledged that those cultivated at Provins were superior to the same kind grown elsewhere, and this superiority is attributed by some to the presence of iron in the soil about that city. It was probably owing also to the very careful cultivation practised there. The petals are used extensively in several medical preparations, as the sugar of roses, the ointment of roses, the treacle of roses, &c. Rose-water is, however, more extensively used in medicine than any other preparation of the rose. This water, when manufactured from the *gallica* or any other variety of the *centifolia*, is employed internally as an astringent, and is sometimes mixed with other

medicines to destroy their disagreeable smell and taste. In external applications, it is used principally for affections of the eyes, either alone or with some ointment.

The *alcoholic tincture of roses*, or spirit of roses before described, which was formerly given as a stimulus in many cases, has now fallen very much into disuse, medical opinion being very much against the employment of any alcoholic medicines excepting in very rare cases.

The *syrup of roses*, manufactured from the pale or damask rose, is sometimes employed as a purgative, and was once highly esteemed and recommended as a mild laxative. It is now, however, scarcely considered purgative, and its laxative properties are probably owing in a great measure to the senna and other articles which enter into its preparation.

The *electuary of roses*, which is now no longer used, was also probably indebted for its medical qualities to the addition of scammony, a very strong purgative.

Vinegar of roses is made by simply infusing dried rose-petals in the best distilled vinegar, to which they communicate their perfume. It is used for cooking and for the toilet, and is valuable for headaches when applied in the same way as common vinegar. The ancients prepared this vinegar, and also the wine and oil of roses, which are no longer used.

Honey of roses is made by beating up rose-petals with a very small portion of boiling water; the liquid, after being filtered, is boiled with honey. This is esteemed for sore throats, for ulcers in the mouth, and for anything that is benefited by the use of honey.

The fruit of the rose is said also to possess some astringent properties; the pulp of the fruit of the wild varieties, particularly of the dog-rose, after being separated from the seeds and beaten up in a mortar with sugar, makes a sort of conserve known in medicine under the name of *Cynorrhodon*.

Children in the country sometimes eat these fruits after they have attained perfect maturity, and have been somewhat mel-
lowed by the frost; they then lose their pungent taste and be-

come a little sweet. Belanger, a French writer who traveled in Persia in 1825, found in that country a rose whose fruit was very agreeably flavored. The apple-bearing rose (*R. villosa pomifera*) produces the largest fruit of all, and is the best adapted for preserving; but an English writer remarks, that the fruit of *R. systyla* and *R. arvensis*, although of a smaller size, bears a higher flavor than that of any other species. Rose-buds, like the fruit, are also frequently preserved in sugar, and pickled in vinegar. Tea is sometimes made of the leaves of the rose, which are also eaten readily by the domestic animals.

The ends of the young shoots of the sweet briar, deprived of their bark and foliage, and cut into short pieces, are sometimes candied and sold by the confectioners.

The Dog-Rose takes its name from the virtue which the ancients attributed to its root, as a cure for hydrophobia.

The heathen deities themselves, according to Pliny, revealed this marvelous property, in dream, to a mother whose son had been bitten by a dog affected with this terrible disease.

The excrescences frequently found on the branches of the Rose, and particularly on those of the wild varieties, known to druggists by the Arabic name of *bédégwar*, and which resemble in form a little bunch of moss, partake equally of the astringent properties of the Rose. These excrescences are caused by the puncture of a little insect, known to naturalists as the *cynips rôsæ*, and occasionally nearly the same effects are produced by other insects.

CHAPTER VII.

GENERAL REMARKS.

THE name of the Rose is very similar in most languages, but of its primitive derivation very little or nothing is known. It is *rhodon* in Greek; *rhos*, in Celtic; *rosa*, in Latin, Italian, Spanish, Portuguese, Hungarian, and Polish; *rose*, in French, Saxon, and English; *rosen*, in German; *roose*, in Dutch; *rhoshà*, in Sclavonic; *ros*, in Irish; *ruoze*, in Bohemian; *ouas-rath*, in Arabic; *nisrin*, in Turkish; *chabhatzeleth*, in Hebrew; and *gul*, in Persian. These are the various names by which the flower has been known from very early times, and a strong resemblance can be traced through all. The Latin name, *rosa*, also forms a component part of terms used to designate several other things.

The name of *rosary* was given to a string of beads used in the Romish Church to represent a certain number of prayers; it was instituted about the year 667, but was not much used until Peter the hermit excited the Christian nations to the Crusade, about 1096. Dominique, a Romish saint, established, in 1207, the brotherhood of the Rosary, and the festival of the Rose was instituted in 1571 by Pope Pius V., in thanksgiving for the victory gained by the Christians over the Turks at Lepante. Subse-

quent popes gave to that ceremony more eclat, and caused it to be established in Spain. The name of *rosary* was formerly also given to the vessel used in distilling rose-water. This flower has also given the idea of new forms of beauty in architecture and the arts. A rose is sometimes sculptured in the centre of each face of a Corinthian capital. It is also frequently seen in iron castings for the banisters of the stone steps of a house, and it is sometimes displayed upon the pavement in front of some splendid mansion. This, however, is rare in the United States, although frequent in Europe.

Among all the imitations of the Rose, none can compare with those painted on glass, some of which can be found in the windows of celebrated European Cathedrals in Canterbury, Cologne, Milan, Rheims, St. Denis and others. We can scarcely imagine anything more beautifully soft than these paintings on glass, as seen from the interior of a church, in the rich light of a glowing sun-set ; the Rose thus painted seems to possess all the freshness and beauty of the real flower.

The nave of the Cathedral of Paris, besides twenty-four large windows, is lighted by three others, large and magnificent, in the shape of a Rose, which are each forty feet in diameter. The paintings on glass which ornament these windows were executed in the 13th century, and still retain their fresh and bright colors : that over the grand entrance represents the signs of the zodiac, and the agricultural labors of each month.

In heraldry, the rose frequently forms part of a shield, in full bloom, with a bud in the centre, and with five points to imitate thorns ; it is an emblem of beauty and of nobility acquired with difficulty.

The Golden Rose was considered so honorable a present, that none but monarchs were worthy to receive it.

In the 11th century, the Pope introduced the custom of blessing a golden Rose, which he presented to some church, or to some prince or princess, as an especial mark of his favor.

In 1096, the Pope Urban II. gave a Golden Rose to the Comte d'Anjou. Alexander III. sent one to Louis, King of France,

in acknowledgment of the attentions of that prince during the pope's visit to France, as stated in a letter which he wrote the king.

"In accordance with the custom of our ancestors, in carrying a rose of gold in their hands on *Dimanche Lætare*, we do not think we can present it to one who merits it more than yourself, from your devotion to the Church and to ourselves."

Pope John, in 1415, sent the Golden Rose to the Emperor Sigismund. Martin V., in 1418, sent another to the same prince. Pius II., in 1461, sent one to Thomas Paleologue, emperor of Constantinople. Henry VIII., of England, before his separation from the Church of Rome, received the Golden Rose twice; the first from Julius II., and the second from Leo X.: and recently, in 1842, the Pope's Nuncio Capaccini presented it to Donna Maria, Queen of Portugal.

The public ceremony of blessing the Rose was not instituted until 1366, by Urban V.: that pontiff, wishing to give a particular mark of his esteem to Joanna, Queen of Sicily, solemnly blessed a Golden Rose, which he sent her, and made at the same time a decree, that a similar one should be consecrated every year. For fifty or sixty years, the Pope gave the Rose to princes who came to Rome; and it was the custom to give 500 louis to the officer who carried it for the Pope. The Rose, in its intrinsic value, was however sometimes worth double that sum.

We have thus given all the information we have been able to collect respecting the history of the Rose.

We shall feel abundantly gratified if the facts and anecdotes we have cited, shall tend to enhance the already growing interest in this flower; and by thus connecting it with the lore of antiquity, cast around it a bright halo of pleasant associations.

Among the various riches of the garden, there are many flowers of great attractions: some we admire for their beautiful forms, others for their brilliant colors; and others again for their delightful fragrance: and we scarcely know which to pronounce the most pleasing. But whatever may be our feelings of admiration for these beautiful flowers, a desire for something still more

beautiful draws us to the Rose, and compels us to pronounce it superior to all its rivals. It is the Rose alone that never fatigues, that always exhibits some new beauty, and that is never affected by fashion; for while Dahlias and other flowers have had their hour of favor, and have passed out of notice, the Rose has been a favorite for some three thousand years, and is still the first and most beautiful,—the *chef d'œuvre* of the vegetable kingdom.

The Rose is rendered a favorite by many pleasant associations. It has been, as we have shown, the cherished flower of the ancient poets, and it will be shown again, that with modern poets, it has lost none of its charms, but is still apostrophized and made an object of frequent comparison. With the ancients, it was, as we have seen, the ornament of their festivals, their altars, and their tombs: it was the emblem of beauty, youth, modesty and innocence, and was full of tender sentiment and pleasant images. A French writer, in a somewhat more extravagant vein of laudation, says, "Its name alone gives birth in all sensible minds to a crowd of pleasant thoughts, while, at the same time, it excites a sensation of the most delightful pleasures, and the most sweet enjoyments." The name of "Queen of Flowers," has been given to the Rose, almost from time immemorial; but this name is particularly applicable to the *centifolia* and the hybrids from it, among which the Rose figured in this work—*La Reine*—stands conspicuous. For size, form and brilliant color, it stands indeed the Queen among Roses. But the little, modest wild-rose, found only in woods and hedges, adorns the solitude where it grows, and possesses for many a charm not surpassed by that of any of the cultivated varieties: its regularly formed corolla, of a soft and delicate color, combines in its simplicity many an attraction not found in the most beautiful flowers of the garden; and late in the season, when the fields are stripped of their verdure, the landscape is enlivened by the bright appearance of its red, coral-like fruit.

The beauty of the Rose has preserved it and its reputation for many ages. The most populous nations, the largest cities, the most wealthy and powerful kingdoms, have disappeared from the earth,

or have been involved in the revolutions and subversions of empires, while a simple flower has escaped them all, and still remains to tell its story. It has seen a hundred generations succeed each other, and pass away; it has traveled through ages without changing its destiny or losing its character: the homage rendered and the love borne it has been always the same: now, as in the earliest periods of the world's history, it is decreed the first place in the floral kingdom. In these days, as in those of antiquity, it is *par excellence*, the Queen of flowers, because it is always the most beautiful, and because no other flower can furnish half its charms. To elegance and beauty of form it unites the freshness and brilliance of the most agreeable colors, and, as if nature had showered upon it all her most precious gifts, it adds to its other qualities a delightful perfume, which alone would suffice to entitle it to a distinguished place among the beautiful and pleasant things of the vegetable kingdom.

POETRY OF THE ROSE.

CHAPTER VIII.

“Round every flower there gleams a glory,
Bequeathed by antique song or story;
To each old legends give a name,
And its peculiar charm proclaim.
O'er smiling lawn, through shady grove,
Our dreaming poets pensive rove,
And strive to read their language rare,
And learn the lesson latent there.”

POETRY has been defined to be that which suggests to the mind glowing thoughts and pleasant images. We have the poetry of motion, whether displayed in the beautiful and bounding steps of a noble stag, the spirit-stirring course of the Arabs' favorite, or the graceful gait and winning gestures of a beautiful and highly cultivated woman. We have, too, the poetry of form, whether dwelling in the quiet beauty of Trinity spire, leaning against the clear, blue sky, or whether breathing in the many forms of natural beauty around us—the ever-varying expression of an intellectual human face, the rippling course of flowing and shaded waters, the stately oak of the forest, the quivering leaf upon the tree, or the simple flower of the field. Willis discourses eloquently upon unwritten music and the various pleasant tones breathed by Nature into the ear of him whose spirit is attuned to their harmony. So, also, the world is full of unwritten poetry; it is everywhere around us, and always visible to the eye that is accustomed to look for its presence. There is poetry in the dreariness of winter, in the purity of the quiet-

falling snow-flake, in the glittering splendor of a whole landscape encased with ice, and the rose-bushes bending under the weight of their gem-like covering. And when the bonds of winter are loosened, and the plant, just awakening from its long sleep, begins to put forth its energies, it is poetry to watch the gradual swelling of the leaf-bud, the first appearance of the delicate leaflets, and the full development of the mature leaf and branch. And when the sun's rays are becoming more powerful, and the infant bud appears, it is poetry to watch the gradual unfolding of the flowers, the opening of the calyx to its ruby-pointed inmate, the appearance of the beautifully formed bud, and the full expansion of the perfect flower. At midsummer, too, it is poetry to lie under the shade of a noble forest tree, and gaze upon the various forms of beauty displayed in the roses scattered about the lawn.

"T is poetry to lie

By the clear brook, where the long bennet dips:

To press the rose-bud, in its purity,

Unto the burning lips."

It is this poetry, this appreciation of the various forms of natural beauty that are always around us, which tends, more than anything of earth, to elevate the mind and to improve the moral affections of him who yields himself to their influence. Its effect is truly conservative, and productive of the happiest results, when duly appreciated.

This species of poetry cannot, however, be readily put upon paper; it is too ethereal to pass under the press.

The poetry for our purpose we must define to be the graceful expression of a beautiful thought; and these expressions and thoughts we have gathered from various fields into a bouquet, which we hope will present some features of beauty. Our selections have in some cases been made from collections of fugitive poetry, where the authors' names are not given, and we cannot therefore attach due credit.

Our object in this work is to interest all; and we hope that those whose ears are not open to pleasant sounds, will endure

this chapter for the sake of the more practical matter contained elsewhere, while some will perhaps be attracted to other chapters by the pleasure they have derived from this.

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TO THE ROSE.

Fruitless and endless were the task, I ween,
 With every flower to grace my votive lay ;
 And unto thee, their long acknowledged Queen,
 Fairest and loveliest ! and thy gentle sway,
 Beautiful Rose, my homage I must pay ;
 For how can minstrel leave thy charms unsung,
 Whose meek supremacy has been alway
 Confess'd, in many a clime and many a tongue,
 And in whose praise the harp of many a bard has sung ?

Mine is unworthy such a lovely theme ;
 Yet, could I borrow of that tuneful bird
 Who sings thy praises by the moon's pale beam—
 As fancy's graceful legends have averr'd—
 Those thrilling harmonies at midnight heard,
 With sounds of flowing waters,—not in vain
 Should the loose strings of my rude harp be stirr'd
 By inspiration's breath ; but one brief strain
 Should re-assert thy rights and celebrate thy reign.

* * * * *

I love the Rose—it is a noble flower ;
 In color rich, and opulent of leaves :
 And when her summer garland Flora weaves,
 She sees no fairer beauty in her bower,—
 None which, so redolent of perfume, flings
 A sweeter fragrance on the zephyr's wings.

I love the Rose—that simple, single one,
Which decks the hedges delicately white ;
Or, blushing like a maiden's cheek so slight,
The eye looks anxious lest the tint be gone
Ere it hath gazed enough, or ere the spray
Can from the parent tree be slipp'd away.

I love the Rose—that monthly one, which blooms
In cottage windows ; which is tended there
With maiden constancy, by maiden care ;
Which through all seasons decorates the rooms,
Like her whose opening charms appear to be
A lovely blowing bud on beauty's tree.

I love the Rose—nor least when I perceive
The thistle's pride in Scotia's bonnet worn ;
The shamrock green on Erin's banner borne :
O, then imagination loves to weave
Of England's emblem flowers a garland meet
To place on beauty's brow, or lay at valor's feet.

I love the Rose—its presence to my eye
Like beauty, youth, like hope and health appears,
Recalling the gay dreams of early years :
And when I smell its fragrance wafted by,
I think of virtue, love, benevolence,
Which moral perfumes round life's paths dispense.

I love the Rose—for bards have ever loved
The queen of flowers—the flower of beauty's queen,
When in the hedgerow or the garden seen,
Or pluck'd and proffer'd, by some friend belov'd,
To gentle lady, and by her caress'd,
Then braided with her hair, or worn upon her breast.

I love the Rose—what time the smiling year
Leads forth in summer glory Flora's train ;
When orchard, garden, woodland, bower and plain,
Dress'd in their richest garments all appear ;
Then—then I love the humblest flower that blows,
But chief of all the tribe—I love the Rose.

BERNARD BARTON.

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THE WILD ROSE.

Welcome ! oh, welcome once again,
Thou dearest of all the laughing flowers
That open their odorous bosoms when
The summer birds are in their bowers !
There is none that I love, sweet gem, like thee,
So mildly through the green leaves stealing ;
For I seem, as thy delicate flush I see,
In the dewy haunts of my youth to be ;
And a gladsome youthful feeling
Springs to my heart, that not all the glare
Of the blossoming East could awaken there.

Glorious and glad it were, no doubt,
Over the billowy sea to sail,
And to find every spot of the wide world out,
So bright and fair in the minstrel's tale :
To roam by old Tiber's classic tide
At eve, when round the gushing waters
Shades of renown will seem to glide,
And amid the myrtle's flowery pride
Walk Italy's soft daughters :
Or to see Spain's haughtier damsels rove
Through the delicious orange grove.

Glorious it were, where the bright heaven glows,
To wander idly far away,
And to scent the musk'd, voluptuous rose
Of beauty, blest Circassia !
To spy some languid Indian maid,
Wooring at noon the precious breeze,
Beneath the proud magnolia's shade ;
Or a Chilian girl at random laid
On a couch of amaryllides :
To behold the cocoa-palm, so fair
To the eye of the southern islander.

Glorious Camellian blooms to find,
In the jealous realms of far Japan,
Or the epidendrum's garlands twin'd
Round the tall trees of Hindostan.
All this were glad, and awhile to be
Like a spirit wand'ring gaily ;
But oh ! what souls, to whom these are free,
Would give them all to share with me
The joys that I gather daily,
When, out in the morning's dewy spring,
I mark the wild Rose blossoming !

When the footpath's winding track is lost
Beneath the deep o'erhanging grass,
And the golden pollen forth is tost
Thickly upon me as I pass ;
When England is paradise all over ;
When flowers are breathing, birds are singing ;
When the honeysuckle I first discover
Balming the air, and in the clover
The early scythe is ringing ;
When gales in the billowy grass delight,
And a silvery beauty tracks their flight ;

And, more than all, the sweet, wild Rose,
Starring each bush in lanes and glades,
Smiles in each lovelier tint that glows
On the cheeks of England's peerless maids :
Some, with a deeper, fuller hue,
Like lass o'er the foamy milk-pail chanting ;
Lighter are some, and gemm'd with dew,
Like ladies whose lovers all are true,
And nought on earth have wanting ;
But their eyes on beauteous scenes are bent,
That own them their chief ornament.

And some—alas ! that a British maid
In beauty should ever resemble them !—
Like damsel heart-broken and betray'd,
Droop softly on their slender stem :
Hid in the wild-wood's deepest shade,
Flowers of such snowy loveliness,
That almost without light fancy's aid,
Seem they for touching emblems made,
Of beauty smitten by distress.
But enough—the wild Rose is the queen of June,
When flowers are abroad and birds in tune.

MARY HOWITT.

THE WILD ROSE.

Gorgeous and bright is the garden, I ween,
Where thousand-leaved roses are richest in sheen ;
But, lady, the plain little wild Rose for me,
That blooms in the shade of the tall forest-tree.

The proud multiflora, so vain of its charms,
Flaunts wide in the sunshine its broad-spreading arms ;

But give me the wild Rose, ashamed to be seen,
That blushes and hides in its mantle of green.

'The Rose of the garden may boast its perfume,
And true it smells sweetly while lingers its bloom ;
But give me the Eglantine, blushing alone,
That still scents the gale when its blossoms are gone.

Let others encircle their brows with the flowers
By culture made bright for a few fleeting hours ;
Far dearer to me is the wild flower that grows
Unseen, by the brook where in shadow it flows.

There hie, gentle maid, where the wild blossoms grow,
And cull me a wreath to encircle my brow :
One sweet little Rose for my bosom shall be ;
And, lady, that sweet little Rose shall be thee.

THE CHILD AND THE ROSE.

When stirring bud and songful bird
Brought gladness to the earth,
And spring-time voices first were heard
In low, sweet sounds of mirth ;

A little child, with pleasant eyes,
Reclined in tranquil thought,
And, half communing with the skies,
His pretty fancies wrought.

He turned where, cased in robe of green,
A rose-bud met his eye,
And one faint streak the leaves between,
Rich in its crimson dye.

The warm light gathereth in the sky,
The bland air stirreth round,
And yet the child is lingering by,
Half-kneeling on the ground :

For broader grew that crimson streak,
Back folds the leaf of green,
And he in wonder, still and meek,
Watch'd all its opening sheen.

"'Tis done, 'tis done !" at length he cried,
With glad amazement wild ;
The Rose, in new-created pride,
Had opened for the child.

O, had we hearts like thine, sweet boy,
To watch creative power,
We, too, should thrill with kindred joy
At every opening flower.

E. OAKES SMITH.

THE ROSE GIRL'S SONG.

Come, buy my sweet Roses, ye fair ladies all,
And bless my poor mother and I ;
Nor fresher, nor sweeter, boasts basket or stall :
Come, buy my sweet Roses, come, buy.

Here are scarlet, and damask, and delicate white,
And some with a blush's sweet dye ;
With beautiful moss'd ones, the lover's delight :
Come, buy my fine Roses, come, buy.

These buds for your bosoms, these blown for your rooms,
Were nursed in warm smiles of July ;
These posies are all of the loveliest blooms :
Come buy my nice Roses, come, buy.

All fresh as the morning, and fragrant as May,
And bright as a young lover's eye,
We gather'd them all at the dawning of day :
Come, buy my fresh Roses, come buy.

THE ROSE-BUD.

When nature tries her finest touch,
Weaving her vernal wreath,
Mark ye how close she veils her round,
Not to be traced by sight or sound,
Nor soil'd by ruder breath ?

Whoever saw the earliest Rose
First open her sweet breast ?
Or, when the summer sun goes down,
The first, soft star in evening's crown
Light up her gleaming crest ?

Fondly we seek the dawning bloom
On features wan and fair ;
The gazing eye no change can trace,
But look away a little space,
Then turn, and lo ! 'tis there.

But there's a sweeter flower than e'er
Blush'd on the rosy spray—
A brighter star, a richer bloom,
Than e'er did western heaven illumine
At close of summer day.

'T is love, the last best gift of heaven—
Love gentle, holy, pure ;
But tenderer than a dove's soft eye :
The searching sun, the open sky,
She never could endure.

Even human love will shrink from sight
Here in the coarse, rude earth :
How then should rash, intruding glance
Break in upon her sacred trance,
Who boasts a heavenly birth !

So still and secret is her growth,
Ever the truest heart,
Where deepest strikes her kindly root
For hope or joy, for flower or fruit,
Least known its happy part.

God only and good angels look
Behind the blissful screen—
As when, triumphant o'er his woes,
The Son of God by moonlight rose,
By all but heaven unseen :

As when the Holy Maid beheld
Her risen Son and Lord :
Thought has not colors half so fair
That she to paint that hour may dare,
In silence best adored.

The gracious dove, that brought from heaven
 The earnest of our bliss,
 Of many a chosen witness' telling,
 On many a happy vision dwelling,
 Sings not a note of this.

So, truest image of the Christ,
 Old Israel's long-lost son,
 What time, with sweet forgiving cheer,
 He called his conscious brethren near,
 Would weep with them alone.

He could not trust his melting soul
 But in his Maker's sight;
 Then why should gentle hearts and true
 Bare to the rude world's withering view
 Their treasures of delight?

No—let the dainty Rose awhile
 Her bashful fragrance hide—
 Rend not her silken veil too soon,
 But leave her, in her own soft noon,
 To flourish and abide.

KEBLE.

THE SUMMER ROSE.

O, nowhere blooms so bright the Summer Rose,
 As where youth cropt it from the valley's breast;
 O, nowhere are the downs so soft as those
 That pillow'd infancy's unbroken rest.

FROM THE DANISH OF AFZELIUS.

TO THE SWEET-BRIER.

Our sweet autumnal western-scented wind
 Robs of its odors none so sweet a flower,
 In all the blooming waste it left behind,
 As that the sweet-brier yields it; and the shower
 Wets not a rose that buds in beauty's bower
 One half so lovely; yet it grows along
 The poor girl's pathway—by the poor man's door.
 Such are the simple folks it dwells among;
 And humble as the bud, so humble be the song.

I love it, for it takes its untouch'd stand
 Not in the vase that sculptors decorate;
 Its sweetness all is of my native land;
 And e'en its fragrant leaf has not its mate
 Among the perfumes which the rich and great
 Bring from the odors of the spicy East.
 You love your flowers, and plants, and will you hate
 The little four-leaved Rose that I love best,
 That freshest will awake, and sweetest go to rest?

J. G. C. BRAINARD.

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 THE TULIP AND EGLANTINE.

The Tulip called to the Eglantine;
 "Good neighbor, I hope you see
 How the throngs that visit the garden come
 To pay their respects to me.

"The florist admires my elegant robe,
 And praises its rainbow ray,
 Till it seems as if, through his raptured eyes
 He was gazing his soul away."

"It may be so," said the Eglantine ;
"In a humble nook I dwell,
And what is passing among the great
I cannot know so well.

But they speak of me as the flower of love,
And that low-whispered name
Is dearer to me, and my infant buds,
Than the loudest breath of fame."

THE ROSE.

How beautiful the Rose, as it unfolds its vernal dyes
And breathes a holy fragrance round, like incense from the skies ;
Casts to the breeze the sparkling dews that glitter on its stem,
And wreaths around its blushing brows a crystal diadem.

But while the bee, with honey'd lip, salutes the vernal flower
That's daily brightened by the sun and cherished by the shower,
The blast of desolation comes and sweeps it to the dust,
When all its beauties perish, as all mortal beauties must.

Behold that gentle maiden, in the fair, fresh morn of youth !
Upon her cheek the holy glow of innocence and truth ;
The sudden shock of sorrow strikes—the blush no longer glows,
But verifies the fate of her fragile type, the Rose.

Destruction comes alike to all, the meanest and the best,
'T is oft the harbinger of wo, as suffering is to rest ;
Here beauty is the sure but smiling herald of decay,
As oftentimes the darkest night succeeds the brightest day.

ROBERT CAUNTER.

THE QUEEN OF FLOWERS.

Most glorious Rose !
You are the queenly belle. On you all eyes
Admiring turn. Doubtless you might indite
Romances from your own sweet history.
They're all the fashion now, and crowd the page
Of many a periodical. Wilt tell
None of your heart adventures ? Never mind !
All can detect the Zephyr's stolen kiss
In your deep blush ; so, where's the use to seal
Your lips so cunningly, when all the world
Call you the flower of love ?

And now good-bye ;
A pleasant gossip have I had with you,
Obliging visitants, but must away
To graver toils. Still keep your incense fresh
And free to rise to Him who tints your brows,
Bidding the brown mould and unsightly stem
Put forth such blaze of beauty as translates
To dullest hearts His dialect of love.

FROM "GOSSIP WITH A BOUQUET."

A THOUGHT OF THE ROSE.

How much of memory dwells amid thy bloom,
Rose ! ever wearing beauty for thy dower !
The bridal day—the festival—the tomb,—
Thou hast thy part in each, thou stateliest flower ;

Therefore with thy soft breath come floating by
A thousand images of love and grief—
Dreams, filled with tokens of mortality,
Deep thoughts of all things beautiful and brief.

Not such thy spells o'er those that hailed thee first,
 In the clear light of Eden's golden day !
There thy rich leaves to crimson glory burst,
 Link'd with no dim remembrance of decay.

Rose ! for the banquet gathered and the bier !
 Rose ! colored now by human hope or pain ;
 Surely where death is not—nor change, nor fear,
 Yet may we meet thee, Joy's own flower, again.

FELICIA HEMANS.

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A SONG OF THE ROSE.

Rose ! what dost thou here ?
 Bridal, royal Rose !
 How, 'midst grief and fear,
 Canst thou thus disclose
 That fervid hue of love which to thy heart-leaf glows ?

Rose ! too much array'd
 For triumphal hours,
 Look'st thou through the shade
 Of these mortal bowers,
 Not to disturb my soul, thou crown'd one of all flowers !

As an eagle soaring
 Through a sunny sky,
 As a clarion pouring
 Notes of victory,
 So dost *thou* kindle thoughts for earthly life too high—

Thoughts of rapture flushing
 Youthful poet's cheek,
 Thoughts of glory rushing
 Forth in song to break,
 But finding the spring-tide of rapid song too weak.

Yet, oh, festal Rose !
I have seen thee lying
In thy bright repose,
Pillow'd with the dying ;
Thy crimson by the life's quick blood was flying.

Summer, hope, and love
O'er that bed of pain,
Meet in thee, yet wove
Too, too frail a chain
In its embracing links the lovely to detain.

Smilest thou, gorgeous flower ?
Oh ! within the spells
Of thy beauty's power
Something dimly dwells,
At variance with a world of sorrows and farewells.

All the soul forth flowing
In that rich perfume,
All the proud life glowing
In that radiant bloom,
Have they no place but here, beneath th' o'ershadowing
tomb ?

Crown'st thou but the daughters
Of our tearful race ?
Heaven's own purest waters
Well might bear the trace
Of thy consummate form, melting to softer grace.

Will that clime enfold thee
With immortal air ?
Shall we not behold thee
Bright and deathless there,
In spirit-lustre clothed, transcendently more fair ?

Yes ! my fancy sees thee
 In that light disclose,
 And its dream thus frees thee
 From the midst of woes,
 Darkening thine earthly bowers, O bridal, royal Rose.

FELICIA HEMANS.

THE ROSE.

Of all flowers,
 Methinks a Rose is best
 It is the very emblem of a maid ;
 For when the west wind courts her gently,
 How modestly she blows and paints the sun
 With her chaste blushes ! When the north comes
 near her,
 Rude and impatient, then, like chastity,
 She locks her beauties in her bud again,
 And leaves him to base briers.

BEAUMONT AND FLETCHER.

THE MOSS ROSE

O, I love the sweet-blooming, the pretty moss-rose,
 'Tis the type of true pleasure and perfected joy ;
 O, I envy each insect that dares to repose
 'Midst its leaves, or among its soft beauties to toy.

I love the sweet lily, so pure and so pale,
 With a bosom as fair as the new fallen snows ;
 Her luxuriant odors she spreads through the vale,
 Yet e'en she must yield to my pretty moss-rose.

O, I love the gay heart's-ease and violet blue,
 The sun-flower and blue-bell, each flowret that blows ;
 The fir tree, the pine tree, acacia, and yew,
 Yet e'en these must yield to my pretty moss-rose.

Yes, I love my moss-rose, for it ne'er had a thorn,
 'Tis the type of life's pleasures, unmixed with its woes ;
 'Tis more gay and more bright than the opening morn—
 Yes, all things must yield to my pretty moss-rose.

ANON.

THE MOSS-ROSE.

Mossy rose on mossy stone,
 Flowering 'mid the ruin lone,
 I have learnt, beholding this,
 Youth and Age may well agree.

Baby germ of freshest hue,
 Out of ruin issuing new ;
 Moss a long laborious growth,
 And one stalk supporting both :

Thus may still, while fades the past,
 Life come forth again as fast ;
 Happy if the relics sere
 Deck a cradle, not a bier.

Tear the garb, the spirit flies,
 And the heart, unshelter'd, dies ;
 Kill within the nursling flower,
 Scarce the green survives an hour.

Ever thus together live,
 And to man a lesson give,
 Moss, the work of vanished years,
 Rose, that but to-day appears.

Moss, that covers dateless tombs ;
 Bud, with early sweet that blooms ;
 Childhood thus, in happy rest,
 Lies on ancient Wisdom's breast.

Moss and Rose, and Age and Youth,
 Flush and Verdure, Hope and Truth,
 Yours be peace that knows not strife,
 One the root and one the life.

JOHN STERLING.

LEGEND OF THE ROSE.

— Ah, lady ! list my tale,
 I was the summer's fairest pride,
 The nightingale's betrothed bride ;
 In Shiraz's bowers I sprung to birth
 When Love first lighted on the earth ;
 And then my pure, inodorous bosom,
 Blooming on its thorny tree,
 Was snowy as its mother's blossom,
 Rising from the emerald sea.
 Young Love rambling through the wood,
 Found me in my solitude,
 Bright with dew and freshly blown,
 And trembling to the zephyr's sighs.
 But as he stood, to gaze upon
 The living gem with raptured eyes,
 It chanced a bee was busy there,
 Searching for its fragrant fare ;

And Cupid stooping, too, to sip,
 The angry insect stung his lip—
 And gushing from the ambrosial cell,
 One bright drop on my bosom fell !
 Weeping, to his mother he
 Told the tale of treachery ;
 And she, her vengeful boy to please,
 Strung his bow with captive bees ;
 But placed upon my slender stem
 The poisoned sting she plucked from them :
 And none since that eventful morn
 Have found the flower without a thorn.

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FLOWER FANTASIES.

Oh, there is music to the spirit's ear
                   In every sigh
 Heaved by the Rose's bosom to the air
                   That winnows by ;
 And there is poetry in every leaf,
 Whose blush speaks pleasure, or whose tears tell

There is romance in every stem that bends
                   In motion soft
 Beneath the wind that rustles in the tall
                   Tree-tops aloft,
 And 'mid their branches whistlingly doth blow,
 While it but fans the flowers that sleep below.

The fragrance is the spirit of the flower,
                   E'en as the soul
 Is *our* ethereal portion. We can ne'er
                   Hold or control
 One more than other. Passing sweet must be
 The visions, gentle things, that visit ye !

How happily ye live in the pure light
    Of loveliness !
Do ye not feel how deeply—wondrously—
    Ye cheer and bless
Our checker'd sojourn on this weary earth,
Whose wildest, dreariest spots to Flowers have
    given birth ?

Do not ye joy to know the pure delight
    With which we gaze
Upon your glorious forms ? Are ye not glad,
    E'en in the praise
Which our enraptured wonder ever tells,
While poring o'er the wealth that in ye dwells :

That wealth of thought, of beauty, and of love,
    Which may be found
In each small common herb that springs from out
    The teeming ground ?
Do not ye feel that ye do deeply bless
Our harsher souls by your dear loveliness ?

Oh, if 'tis given unto ye to know
    The thrilling power
Of memories and thoughts that can be read
    E'en in a flower,
How ye must all rejoice beneath each look
Which reads your beauty, like an open book !

We love its silent language : strong, though still,
    Is that unheard
But all-pervading harmony : it breathes
    No utter'd word,
But floats around us, as, in happy dream,
We feel the soft sigh of a waveless stream.

So, love of nature's harmony can bless
And gladden ever
The heart and fancy, as pellucid wave
Of fount or river
Flings back more bright what bright doth on it fall,
And its own radiance lends where else were none at all.

LOUISA ANN TWAMLEY.

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THE ROSES.

I saw them once blowing,
While morning was glowing ;
But now are their wither'd leaves strew'd o'er the ground,
For tempests to play on,
For cold worms to prey on,
The shame of the garden that triumphs around.

Their buds which then flourish'd,
With dew-drops were nourish'd,
Which turn'd into pearls as they fell from on high ;
Their hues are all banish'd,
Their fragrance all vanish'd,
Ere evening a shadow has cast from the sky.

I saw, too, whole races
Of glories and graces
Thus open and blossom, but quickly decay ;
And smiling and gladness,
In sorrow and sadness,
Ere life reach'd its twilight, fade dimly away.

Joy's light-hearted dances,
 And melody's glances,
 Are rays of a moment—are dying when born
 And pleasure's best dower
 Is nought but a flower,
 A vanishing dew-drop—a gem of the morn.

The bright eye is clouded,
 Its brilliancy shrouded,
 Our strength disappears, we are helpless and lone ;
 No reason avails us,
 And intellect fails us ;
 Life's spirit is wasted, and darkness comes on.

BOWRING.

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THE ROSE.

Loved daughter of the laughing May
 The light of all that's pure is thine ;
 The rosy beams that wake the day,
 Upon thy cheeks of velvet shine.
 Thy beauty paints the evening skies
 It mingles with the rainbow's dyes :
 In love's own light its blushes speak
 On ruby lip and vermeil cheek.

No wooing zephyrs ever strayed
 To whisper love or steal a kiss,
 Or dancing sunbeam ever played
 Upon a sweeter flower than this.
 The night fays o'er thy bosom strew
 The sparklet of the nectar dew ;
 And on their shrine the pearls have slept
 Like tears the dying stars have wept.

Many a pouting lip has flush'd
In rival beauty by thy side ;
Many a maiden cheek has blush'd
In vain to match thy crimson pride.
The pink may burst its varied hue,
The violet its azure blue,
The lily claim the snow its own ;
But still thou reign'st, undimmed, alone.

Thou hast the tale of love express'd,
In words the faltering tongue forebore ;
And answering from the heart confess'd,
What eye and cheek had told before.
Young hearts have whisper'd to thy ears
The secret of their hopes and fears ;
When, nestled in a gentle breast,
Thou had'st thy tender folds carest.

Ah ! anxious hope long watch has kept,
Despairingly beneath thy cover ;
While fond heart sighed and bright eye wept
The absence of a faithless lover.
And many a vow of love is made,
And fond heart pledged beneath thy shade ;
While friendly moonbeams light thy bower,
And glides too soon the stolen hour.

I love thee, emblem of my youth !
Thou bring'st to mind fond memories—
When fancy wore the garb of truth,
And love made earth a paradise.
But as those dreamy hours have fled
Before the light stern truth has shed
So will thy fleeting beauty fade,
And join the wreck that time has made.

D. EVERETT ROSE.

CUPID AND THE DIAL.

One day, young frolic Cupid tried
To scatter roses o'er the hours,
And on the dial's face to hide
The course of time with many flowers.

By chance, his rosy wreaths had wound
Upon the hands, and forced them on ;
And when he look'd again, he found
The hours had pass'd, the time was done.

"Alas !" said Love, and dropp'd his flowers,
"I've lost my time in idle play ;
The sweeter I would make the hours,
The quicker they are pass'd away."

ANACREON TO THE ROSE.

While we invoke the wreathed spring,
Resplendent Rose ! to thee we'll sing,
Resplendent Rose ! the flower of flowers,
Whose breath perfumes Olympus' bowers ;
Whose virgin blush, of chasten'd dye,
Enchants so much our mortal eye :
Oft has the poet's magic tongue
The Rose's fair luxuriance sung ;
And long the Muses, heavenly maids,
Have rear'd it in their tuneful shades.
When, at the early glance of morn,
It sleeps upon the glittering thorn,
'Tis sweet to dare the tangled fence,
To cull the timid floweret thence,

And wipe, with tender hand, away
The tear that on its blushes lay !
'Tis sweet to hold the infant stems,
Yet dropping with Aurora's gems,
And fresh inhale the spicy sighs
That from the weeping buds arise.
When revel reigns, when mirth is high,
And Bacchus beams in every eye,
Our rosy fillets scent exhale,
And fill with balm the fainting gale !
Oh, there is naught in nature bright,
Where Roses do not shed their light !
Where morning paints the orient skies,
Her fingers burn with roseate dyes !
And when, at length, with pale decline,
Its florid beauties fade and pine,
Sweet, as in youth, its balmy breath
Diffuses odors e'en in death !
Oh, whence could such a plant have sprung ?
Attend—for thus the tale is sung :—
When humid from the silvery stream,
Effusing beauty's warmest beam,
Venus appeared in flushing hues,
Mellowed by Ocean's briny dews ;
When, in the starry courts above,
The pregnant brain of mighty Jove
Disclosed the nymph of azure glance !
The nymph who shakes the martial lance !
Then, then, in strange, eventful hour,
The earth produced an infant flower,
Which sprung with blushing tinctures dress'd,
And wanton'd o'er its parent breast.
The gods beheld this brilliant birth,
And hail'd the Rose, the born of earth !
With nectar drops, a ruby tide,
The sweetly orient buds they dyed,

And bade them bloom, the flowers divine
 Of him who sheds the teeming vine ;
 And bade them on the spangled thorn
 Expand their bosoms to the morn.

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THE QUEEN OF THE GARDEN.

If Jove would give the leafy bowers
 A *queen* for all their world of flowers,
 The Rose would be the choice of Jove,
 And reign the queen of every grove.
 Sweetest child of weeping morning,
 Gem, the vest of earth adorning,
 Eye of flowerets, glow of lawns,
 Bud of beauty, nursed by dawns ;
 Soft the soul of love it breathes—
 Cypria's brow with magic wreathes,
 And to the zephyr's warm caresses
 Diffuses all its verdant tresses,
 Till, glowing with the wanton's play,
 It blushes a diviner ray !

ANACREON.

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THE THORNS OF THE ROSE.

Where grew the Rose, Eve often sped
 To gather fresh supplies,
 And daily from their mossy bed
 The new-blown beauties rise.

One morn—a sad and luckless morn—
 She hither bent her way ;
 But ah ! less heedful of return,
 Her wishes went astray.

Her eye the tree of knowledge caught,
With golden fruitage crown'd ;
But when a free access she sought,
No free access she found.

For shrub and flower there thickly sprung,
To check her wayward foot,
And in deep file their branches flung
Around the sacred fruit.

Yet, urged by Satan's false pretence,
Prime source of all our woes—
She dared to break the blooming fence,
And trampled on the Rose.

Unmov'd, she stretch'd the impious hand,
The alluring sweets to prove,
Regardless of her LORD's command,
Regardless of His love.

The injured flower beheld the theft,
And, wounded, hung its head ;
The native white its petals left,
Which blushing, chang'd to red.

Its foliage wept a dewy shower,
And mourn'd the strange event ;
Eve turn'd and saw the impassion'd flower,
And marvel'd what it meant.

Awhile she stood and gazed thereon,
Till, trembling, she withdrew,
Unconscious she had trampled on
The fairest flower that grew.

Ere this event of sin and shame,
No prickly thorns were found ;
But now they burst from every stem,
And with the rose abound.

J. WILLIAMS.

TO THE ROSE.

Rose of my heart ! I've raised for thee a bower—
For thee have bent the pliant osier round,
For thee have carpeted with earth the ground,
And trained a canopy to shield thy flower,
So that the warmest sun can have no power
To dry the dew from off thy leaf, and pale
Thy living carmine, but a woven veil
Of full-green vines shall guard from heat and shower.
Rose of my heart ! here, in this dim alcove,
No worm shall nestle, and no wandering bee
Shall suck thy sweets—no blights shall wither thee ;
But thou shalt show the freshest hue of love.
Like the red stream that from Adonis flow'd,
And made the snow carnation, thou shalt blush,
And fays shall wander from their bright abode
To flit enchanted round thy loaded bush.
Bowed with thy fragrant burden, thou shalt bend
Thy slender twigs and thorny branches low ;
Vermillion and the purest foam shall blend ;
These shall be pale, and those in youth's first glow
Their tints shall form one sweetest harmony,
And on some leaves the damask shall prevail,
Whose colors melt like the soft symphony
Of flutes and voices in the distant dale.
The bosom of that flower shall be as white
As hearts that love, and love alone, are pure ;
Its tip shall blush as beautiful and bright
As are the gayest streaks of dawning light,
Or rubies set within a brimming ewer.
Rose of my heart ! there shalt thou ever bloom,
Safe in the shelter of my perfect love ;
And, when they lay thee in the dark, cold tomb,
I'll find thee out a better bower above.

PERCIVAL.

TO A WITHERED ROSE.

Pale flower—pale, fragile, faded flower ;
What tender recollections swell,
What thoughts of deep and thrilling power
Are kindled in thy mystic spell !

A charm is in thy faint perfume,
To call up visions of the past,
Which, through my mind's o'ershadowing gloom,
"Rush like the rare stars, dim and fast."

And loveliest shines that evening hour,
More dear by time and sorrow made,
When thou wert cull'd ('love's token flower !')
And on my throbbing bosom laid.

On eve's pale brow one star burned bright,
Like heavenward hope, whose soothing dream
Is veiled from pleasure's dazzled sight,
To shine on sorrow's diadem.

Bright as the tears thy beauty wept,
The dewdrops on thy petals lay,
Till evening's silver winds had swept
Thy cheek, and kissed them all away.

WHITMAN.

TO THE ROSE.

Dear flower of heaven and love ! thou glorious thing
That lookest out the garden nooks among ;
Rose, that art ever fair and ever young ;
Was it some angel or invisible wing
Hover'd around thy fragrant sleep, to fling

His glowing mantle of warm sunset hues
 O'er thy unfolding petals, wet with dews
 Such as the flower-fays to Titania bring?
 O flower of thousand memories and dreams,
 That take the heart with faintness, while we gaze
 On the rich depths of thy inwoven maze;
 From the green banks of Eden's blessed streams
 I dream'd thee brought, of brighter days to tell,
 Long pass'd, but promised yet with us to dwell.

C. P. CRANCH.

THE BRIDAL FLOWER.

The married are compared by the Italian poet to the young Rose, which the lover places in the bosom of his betrothed, first stripped of thorns.

Thou virgin Rose! whose opening leaves, so fair,
 The dawn has nourish'd with her balmy dews;
 While softest whispers of the morning air
 Call'd forth the blushes of thy vermeil hues.

That cautious hand which cropt thy youthful pride,
 Transplants thy honors, where from hurt secure,
 Stript of each thorn offensive to thy side,
 Thy nobler part alone shall bloom mature.

Thus thou, a flower, exempt from change of skies,
 By storms and torrents unassail'd shalt rise,
 And scorn the winter colds and summer heats;
 A guard more faithful than thy growth shall tend,
 By whom thou mayest in tranquil union blend
 Eternal beauties with eternal sweets.

FROM METASTASIO.

THE VIRGIN ROSE.

Ah ! see, deep-blushing in her green recess,
The bashful virgin Rose, that, half revealing,
And half within herself herself concealing,
Is lovelier for her hidden loveliness.
Lo ! soon her glorious beauty she discovers ;
Soon droops, and sheds her leaves of faded hue :
Can this be she—the flower erewhile that drew
The hearts of thousand maids—of thousand longing
lovers ?

So fleeteth in the fleeting of a day
Of mortal life, the green leaf and the flower,
And not, though spring return to every bower,
Buds forth again soft leaf or blossom gay.
Gather the Rose ! beneath the beauteous morning
Of this bright day that soon will over-cast ;
Oh, gather the sweet Rose, that yet doth last !

FROM TASSO.

THE LITTLE RED ROSE.

A boy caught sight of a rose in a bower—
A little rose, slily hiding
Among the boughs ; Oh, the rose was bright
And young, and it glimmer'd like morning light ;
The urchin sought it with haste ; 'twas a flower
A child indeed might take pride in—
A little rose, little rose, little red rose,
Among the bushes hiding.

The wild boy shouted—"I'll pluck thee, rose,
Little rose vainly hiding
Among the boughs;" but the little rose spoke—
"I'll prick thee, and that will prove no joke;
Unhurt, O then will I mock thy woes,
Whilst thou thy folly art chiding."
Little rose, little rose, little red rose,
Among the bushes hiding!

But the rude boy laid his hands on the flower,
The little rose vainly hiding
Among the boughs; Oh, the rose was caught!
But it turned again, and pricked and fought,
And left with its spoiler a smart from that hour,
A pain for ever abiding;
Little rose, little rose, little red rose,
Among the bushes hiding!

FROM GOETHE.

THE VOICE OF THE FLOWERS.

Blossoms that lowly bend,
Shutting your leaves from evening's chilly dew,
While your rich odors heavily ascend,
The flitting winds to woo!

I walk at silent eve,
When scarce a breath is in the garden bowers,
And many a vision and wild fancy weave,
'Midst ye, ye lovely flowers:

Beneath the cool green boughs,
And perfumed bells of the fresh-blossom'd lime,
That stoop and gently touch my feverish brow,
Fresh in their summer prime;

Or in the mossy dell,
Where the pale primrose trembles at a breath ;
Or where the lily, by the silent well,
Beholds her form beneath ;

Or where the rich queen-rose
Sits, throned and blushing, 'midst her leaves and moss ;
Or where the wind-flower, pale and fragile, blows ;
Or violets banks emboss.

MARY ANNE BROWNE.

THE LAST ROSE OF SUMMER.

'Tis the last Rose of summer,
Left blooming alone ;
All her lovely companions
Are faded and gone :
No flower of her kindred,
No rose-bud is nigh,
To reflect back her blushes
And give sigh for sigh.

I'll not leave thee, thou lone one,
To pine on the stem ;
Since the lovely are sleeping,
Go sleep thou with them.
Thus kindly I scatter
Thy leaves on the bed,
Where thy mates of the garden
Lie scentless and dead.

So soon may I follow
When friendships decay,
And from love's shining circle
The gems drop away.

When true hearts lie wither'd
And fond ones are flown,
Oh, who would inhabit
This cold world alone ?

T. MOORE.

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WHITE ROSES.

They were gather'd for a bridal !
I knew it by their hue :
Fair as the summer moonlight
Upon the sleeping dew.
From their fair and fairy sisters
They were borne, without a sigh,
For one remember'd evening
To blossom and to die.

They were gather'd for a bridal !
And fasten'd in a wreath ;
But purer were the roses
Than the heart that lay beneath ;
Yet the beaming eye was lovely,
And the coral lip was fair,
And the gazer look'd and ask'd not
For the secret hidden there.

They were gather'd for a bridal !
Where a thousand torches glisten'd,
When the holy words were spoken,
And the false and faithless listen'd
And answered to the vow
Which another heart had taken ;
Yet he was present then—
The once loved, the forsaken.

They were gather'd for a bridal !
And now, now they are dying,
And young Love at the altar
Of broken faith is sighing.
Their summer life was stainless,
And not like her's who wore them ;
They are faded, and the farewell
Of beauty lingers o'er them !

SARAH LOUISA P. SMITH.

THE DESOLATE ONE.

As wandering, I found on my ruinous walk,
By the dial-stone aged and green,
One rose of the wilderness left on its stalk,
To mark where a garden had been ;
Like a brotherless hermit, the last of its race,
All wild in the silence of nature, it drew
From each wandering sunbeam a lovely embrace,
For the nightweed and thorn overshadowed the place
Where the flower of my forefathers grew.

Sweet bud of the wilderness ! emblem of all
That survives in this desolate heart !
The fabric of bliss to its centre may fall,
But patience shall never depart ;
Though the wilds of enchantment, all vernal and bright,
In the days of delusion by fancy combined
With the vanishing phantoms of wo and delight,
Abandon my soul like a dream of the night,
And leave but a desert behind.

CAMPBELL.

ROSES.

We are blushing roses,
Bending with our fullness,
'Midst our close-capp'd sister buds,
Warming the green coolness.

Whatsoe'er of beauty
Yearns and yet reposes,
Blush, and bosom, and sweet breath,
Took a shape in roses.

Hold one of us lightly :
See from what a slender
Stalk we bower in heavy blooms,
And roundness rich and tender.

Know you not our only
Rival flower—the human ?
Loveliest weight on lightest foot—
Joy-abundant woman ?

LEIGH HUNT.

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THE LILY AND THE ROSE.

The nymph must lose her female friend,
If more admired than she ;
But where will fierce contention end,
If flowers can disagree ?

Within the garden's peaceful scene
Appeared two lovely foes,
Aspiring to the rank of queen :
The Lily and the Rose.

The Rose soon reddened into rage,
And, swelling with disdain,
Appealed to many a poet's page
To prove her right to reign.

The Lily's height bespoke command,—
A fair, imperial flower ;
She seemed designed for Flora's hand,
The sceptre of her power.

This civil bickering and debate
The goddess chanced to hear ;
And flew to save, ere yet too late,
The pride of the parterre.

"Yours is," she said, "the noblest hue,
And yours the statelier mien ;
And till a third surpasses you,
Let each be deemed a queen."

Thus soothed and reconciled, both seek
The fairest British fair ;
The seat of empire is her cheek,
They reign united there.

COWPER.

THE ROSES.

Two Roses on one slender stem
In sweet communion grew,
Together hail'd the morning ray,
And drank the evening dew ;
While, sweetly wreath'd in mossy green,
There sprang a little bud between.

Through clouds and sunshine, storms and showers,
They open'd into bloom,
Mingling their foliage and their flowers,
Their beauty and perfume ;
While foster'd on its rising stem,
The bud became a purple gem.

But soon their summer splendor pass'd,
They faded in the wind ;
Yet were these Roses, to the last,
The loveliest of their kind—
Whose crimson leaves, in falling round,
Adorn'd and sanctified the ground.

When thus were all their honors shorn,
The bud-unfolding rose,
And blush'd and brighten'd, as the morn
From dawn to sunrise glows ;
Till o'er each parent's drooping head
The daughter's crowning glory spread.

My friends, in youth's romantic prime,
The golden age of man,
Like these twin Roses spend your time,
Life's little less'ning span ;
Then be your breast as free from cares,
Your hours as innocent as theirs.

And in the infant bud that blows
In your encircling arms,
Mark the dear promise of a Rose,
The pledge of future charms,
That o'er your withering hours shall shine,
Fair and more fair as you decline :

Till, planted in that realm of rest
 Where Roses never die,
 Amid the gardens of the blest,
 Beneath a stormless sky,
 You flower afresh, like Aaron's rod,
 That blossom'd at the sight of God.

MONTGOMERY.

THE AUTUMN ROSES.

"My brother had a beautiful Rose-tree, standing directly under the window of his study, which he cultivated with great care, and which rewarded him every Spring with a large number of the loveliest white roses I ever saw. On the Spring, however, preceding his decease, it did not blossom; but in the Fall, when everything else was going to decay, how were we surprised to behold this sweet tree drooping beneath an unusual quantity of snow-white flowers. We did not allow one of them to be plucked until my poor brother's death, when we strewed them over his grave."

Gently looked the morning sun
 Into a quiet room;
 Softly, through a broken pane,
 Stole a rich perfume:
 "Is not that the Rose's scent?"
 A dying sufferer said;
 And a fair one o'er his pillow leant,
 And raised his feeble head,
 Whispering, the while, a few low words
 But they soothed not the spirit's vibrating chords;
 For the pallid cheek of the student flushed,
 And a flood of tears from his dim eyes gushed.

"Roses on my beauteous tree?
 Roses, didst thou say?
 Roses, when all sights and sounds
 Whisper but decay?"

Quickly, quickly, sister dear,
Lead my footsteps where
These untrusting eyes may feast
On a sight so rare."

And they made him a seat by the window's side,
Where the bright flowers clung in their dewy pride,
Smiling above the unburied leaves
Which the frost had cast from the vine-wreathed eaves.

"Wherefore, children of the light,"
(Whisper'd he again,)

"Come ye, in these gloomy days,
Near the couch of pain ?

Would ye mock the fading flower

Of a human tree,

Boasting for its deathless root

Immortality ?

Would ye mock with your purity the heart

Whence sinful passions so wildly start ?

Or bring ye the hope of a cleansing power

For the sin-dyed soul in its parting hour ?

"Ye are emblems, lovely flowers,
Of unnumber'd things—

Emblems of unsullied hopes,

With their airy wings—

Emblems of the love which burns

With a hueless ray,

Spreading o'er the lamb-like mind

An eternal day ;

Also of hearts where a living faith

Rises up coldly, 'mid fields of scathe,

Startling the eye in a wintry hour

With its healing fruit and its fragrant flower.

"Autumn flowers ! ye come to me
 As a voice might come
 To the wave-toss'd mariner
 From his mountain home :
 Bringing all sweet summer sounds
 From the forests deep,
 And the music low which makes his heart
 With a mournful joy to weep :
 Ye come to me as the star-lit eves
 To the exile lone, when his spirit grieves,
 Kindling a thought with your tender light,
 Which guides me on through the closing night.

"Ye are spirits of the blest,
 Gentle, gentle flowers !
 Spirits of that sweet-voiced land,
 Missed in all our bowers :
 They who pass'd like twilight gleams
 On a summer sea,
 Leaving the wail of a billowy grief
 For their heavenward minstrelsy :
 O come ye not, with your music breath,
 Beautiful ones, to wrest from death
 This soul's dim germ, and plant it where
 It may gather strength from a purer air ?"

* * * * *

Softly shone the morning sun
 On a new-made grave ;
 Slowly o'er a marble fresh
 Did a willow wave ;
 Faintly stole the southern breeze
 Through the dewy grass,
 Scarcely stirring the tall blades
 As its wings did pass :

When a frail and drooping form drew near,
 And strew'd fresh roses beside the bier ;
 Murmuring, as each pale offering fell,
 "Brother ! thou lovedst them passing well !"

J. H. S.

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FROM SHAKSPEARE.

Emil. Of all flowers,
 Methinks the Rose is best.

Serv. Why, gentle madam ?

Emil. It is the very emblem of a maid ;
 For, when the west wind courts her gently,
 How modestly she blows and paints the sun
 With her chaste blushes ! When the north comes near her,
 Rude and impatient, then, like Chastity,
 She locks her beauties in her bud again,
 And leaves him to base briars.

* * * * *

O how much more doth beauty beauteous seem
 By that sweet ornament which truth doth give !
 The Rose looks fair ; but fairer we it deem
 For that sweet odor which doth in it live.
 The canker-blooms have full as deep a dye
 As the perfumed tincture of the Roses ;
 Hang on such thorns, and play as wantonly,
 When summer's breath their masked buds discloses ;
 But, for their virtue only is their show,
 They live unwoo'd, and unrespected fade ;
 Die to themselves. Sweet Roses do not so ;
 Of their sweet deaths are sweetest odors made :
 And so of you, beauteous and lovely youth,
 When that shall fade, my verse distils your truth.

* * * * *

—To endure the livery of a nun ;
 For aye to be in shady cloister mewed—
 To undergo such maiden pilgrimage :
 But earthlier happy is the Rose distill'd
 Than that which, withering on the virgin thorn,
 Grows, lives, and dies, in single blessedness.

* * * * *

Some to kill cankers in the Musk Rose-buds.

* * * * *

Why should I joy in an abortive birth ?
 At Christmas I no more desire a Rose
 Than wish a snow in May's new-fangled shows.

FROM THE PERSIAN OF HAFIZ.

When the young *Rose*, in crimson gay,
 Expands her beauties to the day,
 And foliage fresh her leafless boughs o'erspread ;
 In homage to her sovereign power,
 Bright regent of each subject flower,
 Low at her feet the violet bends its head. ODE IX.

See where the *Rose* and Spring to mirth awake !
 So cheerful looks the *Rose*, 'twere wisdom's part
 To tear the root of sorrow from the heart.

Soft comes the morning wind ; the wanton *Rose*
 Bursts from its cup to kiss the gale that blows ;
 Its silken garment wounds in tender play,
 And leaves its body naked to the day. ODE XIV.

O cease with delight to survey the proud *Rose*,
 Whose soft leaves must too soon feel decay ;
 For, ah ! the dark wind, as it churlishly blows,
 At our feet all its honors shall lay. ODE XVI.

The youthful season's wonted bloom
 Renews the beauty of each bower,
 And to the sweet-song'd bird is come,
 Glad welcome from its darling flower. ODE VIII.

The love-struck nightingale's delightful strain,
 The lark's resounding note, are heard again ;
 Again the *Rose*, to hail Spring's festive day,
 From the cold house of sorrow hastes away. ODE XIII.

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AN IDEAL FLOWER.

So when the nightingale, in eastern bowers,
 On quivering pinions woos the queen of flowers,
 Inhales her fragrance as he hangs in air,
 And melts with melody the blushing fair ;
 Half *Rose*, half bird, a beauteous monster springs,
 Waves his thin leaves and claps his glossy wings :
 Long horrent thorns his mossy legs surround,
 And tendril talons root him to the ground ;
 Green films of rind his wrinkled neck o'erspread,
 And crimson petals crest his curled head ;
 Soft-warbling beaks in each bright blossom move,
 And vocal rose-buds fill th' enchanted grove.
 Admiring Evening stays her beamy star
 And still Night listens from his ebon car ;
 While on white wings descending houris throng,
 And drink the floods of odor and of song.

DR. DARWIN.

REMEMBRANCE.

I turn to the cot where roses bloom
In beauty rare, and with rich perfume ;
Where they raise their heads at dawning light,
Sparkling with gems of the dewy night ;
And I think of the days, when a merry boy,
I pluck'd the fairest with gleesome joy,
And wished—how vain !—that its blushing hues
Might never change ; but, like early dews,
They faded, while yet with care 'twas prest
As a matchless rose to my youthful breast.
My wish was cross'd, and the tear-drop fell
On the faded rose I loved so well.
It taught my heart, what I since have found,
That the dearest thing to affection bound,
Like the sweet rose pluck'd 'neath the summer sky,
Is sure to wither, and fade, and die.

FROM "FLORA'S PARTY."

There were Myrtles and Roses from garden and plain,
And Venus's Fly-Trap they brought in their train ;
So the beaux cluster'd round them, they hardly knew why,
At each smile of the lip, or each glance of the eye.
Madame Damask a robe had from Paris brought out,
The envy of all who attended the rout ;
Its drapery was folded her form to adorn,
And clasp'd at the breast with a diamond-set thorn.
Yet she, quite unconscious, 't would seem, of the grace
That enchanted all groups who frequented the place,
Introduced, with the sweetest of words in her mouth,
The young Multiflora—her guest from the south !

Neighbor Cinnamon prated of household and care—
How she seldom went out, e'en to breathe the fresh air ;
'There were so many young ones and servants to stray,
And the thorns grew so fast if her eye was away.
"Cousin Moss-Rose," she said, "you who live like a queen,
And ne'er wet your fingers, scarce know what I mean."
So that notable lady went on with her lay,
'Till the auditors yawned and stole softly away.

ROSE-BUDS IN HER HAND.

"How beautiful those rose-buds are !"
The happy brother said,
Whose hopeful heart could have no thought
That sister could be dead :
"I'll pluck them for sweet sister now,
And take them where she lies ;
I know she'll love to see them there,
When open are her eyes."

He pluck'd them for his sister dear,
And bore them to her hand ;
But to his trustful soul there came
No dark and shadowy band,
As to the eye so often comes
Around the form of Death,
To bring but sorrow when at last
Is breathed the parting breath.

O beautiful those buds appear'd,
Sweet types of childhood's trust,
That opens only to give sweets
To breathe o'er human dust !

And from my fervent soul went up—
"O Father! list to me!
Let to his soul all thoughts of death
Like those sweet rose-buds be!"

O let us, with the youthful dead,
Unite the budding flowers,
That while we weep the faded eye
And love's entrancing flowers,
He on the beautiful may gaze
Beyond the changes here,
And let the smiles of angels play
Through every falling tear:

Bright rainbow of the Christian sky,
That tends to hallow earth,
And wake in storm-bound souls again
The music of its mirth,
And give to thought a holy way
To tread unto the skies—
To see the joy of ransom'd souls
With hope-anointed eyes.

THE ROSE.

Ah, see the virgin Rose! how sweetly she
Doth first peep forth with bashful modesty,
That fairer seems the less ye see her way!
Lo! see soon after, how more bold and free
Her bared bosom she doth broad display!
Lo! see soon after, how she fades away and falls!

SPENSER.

FLORA'S CHOICE.

When Flora, from her azure home,
Came gently down to grace the earth,
She called around her every sprite
To which the sunny air gives birth,
And bade them search each distant realm
Of tropic heat or temperate clime,
From cold New England's rocky hills
To Santa Crusian groves of lime,
And bring each floweret, rich and rare,
For her to choose her favorite there.

Quick flew the sprites o'er land and sea,
Through cloud, and mist, and storm afar,
Catching, with rapid, eagle glance,
The beauties of each opening flower :
From Alpine heights they bore a prize,
From Persia and from Hindostan ;
For many a bud of beauty rare
They searched the central, flowery land,
And, filled with treasures rich and sweet,
They hasten'd to their mistress' feet.

Camellia, with its lustrous white
And glossy leaves of emerald hue ;
Verbena, with its brilliant red,
And Heath just touch'd with mountain dew ;
Azalea, whose aerial form
Seems scarcely of terrestrial birth ;
And Cinerara's purple star,
Gracing full well its mother earth ;
And many a flower from tropic skies
Strove mingled there to gain the prize :

But not the richest tropic blooms,
Cull'd from the fairest climes on earth,
Could vie with nature's fairest flower,
Of Iran's sun-clad soil the birth ;
Though clothed in rich and gorgeous hues,
They bore no charm of fragrance there,
In form and color, sweetness, grace—
None with the Rose could once compare :
She bore the palm in Flora's eyes,
Who to the Rose adjudged the prize.

S. B. P.

A FABLE.

Once, in the heart of a desert,
    Blossomed a rose-bush unseen :
Only the sands were around it ;
    Nought but its leaf was there green.
Ever, at evening and morning,
    Trickled its flowers with dew ;
And then, in light circles, around it
    Fondly a nightingale flew.

Over the sands strayed a pilgrim,
    Lost in the midst of the wild,
When on his faint eyes, at evening,
    Sweetly the rose-blossom smiled ;
Sweetly the nightingale wooed him,
    Under its shade to repose ;
There his song charmed him to slumber.
    Wet by the dew of the Rose.

Freshly he rose in the morning—
    Dug in the sand by the flower,
And a bright fountain upsparkled,
    Welling with bubbling shower :

Over the sands as it murmured,
 Green sprung the grass by its side ;
 Round it a garden soon blossom'd,
 Fed by its life-giving tide.

There, too, a wild vine up-started
 Under its shelter he dwelt :
 Morning and evening, yet ever
 Low by the rose-bush he knelt.
 So in the far waste forgotten,
 Still flowed his pure life along,
 Soothed by the rose-blossom's fragrance,
 Charmed by the nightingale's song.

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THE FEAST OF ROSES.

Who has not heard of the Vale of Cashmere,
 With its Roses, the brightest that earth ever gave,
 Its temples and grottos, and fountains as clear
 As the love-lighted eyes that hang over their wave ?

* * * * *

But never yet, by night or day,
 In dew of spring or summer's ray,
 Did the sweet Valley shine so gay
 As now it shines—all love and light,
 Visions by day and feasts by night !
 A happier smile illumines each brow,
 With quicker spread each heart uncloses,
 And all is extasy,—for now
 The Valley holds its Feast of Roses.
 That joyous time, when pleasures pour
 Profusely round, and in their shower

Hearts open, like the Season's Rose,—
 The flow'ret of a hundred leaves,
 Expanding while the dew-fall flows,
 And every leaf its balm receives !

* * * * *

A thousand restless torches play'd
 Through every grove and island shade ;
 A thousand sparkling lamps were set
 On every dome and minaret ;
 And fields and pathways, far and near,
 Were lighted by a blaze so clear,
 That you could see, in wandering round,
 The smallest rose-leaf on the ground.

* * * * *

And all exclaim'd, to all they met,
 That never did the summer bring
 So gay a Feast of Roses yet ;—
 The moon had never shed a light
 So clear as that which bless'd them there ;
 The Roses ne'er shone half so bright,
 Nor they themselves look'd half so fair.
 And what a wilderness of flowers !
 It seem'd as though from all the bowers
 And fairest fields of all the year,
 The mingled spoil were scatter'd here.
 The Lake, too, like a garden breathes,
 With the rich buds that o'er it lie,—
 As if a shower of fairy wreaths
 Had fall'n upon it from the sky !
 And then the sounds of joy—the beat
 Of tabors and of dancing feet ;
 The merry laughter echoing
 From gardens, where the silken swing
 Wafts some delighted girl above
 The top leaves of the orange grove ;

Or, from those infant groups at play
Among the tents that line the way,
Flinging, unaw'd by slave or mother,
Handfuls of Roses at each other !

FROM "LALLA ROOKH."

THE ROSE AND THE TOMB.

"Thou that dwell'st within my shadow :"
To the Rose thus said the Tomb :
"Love's flower ! that here in freshness
Bloom'st alone amid the gloom :
Thou that clingest to the sepulchre,
Like a fadeless memory ;
What dost thou with the early tears
That the morning sheds on thee ?"

Then the Rose, low breathing, answered :
"I distil a perfume here ;
And I give its honied fragrance forth
To the solemn atmosphere.
And thou, dark Tomb ! discover
What dost thou, amid thy walls,
With the pale and silent guests that throng
Thy ever-opening halls ?"

And the Tomb said, "Of the beautiful
That to mine abode are given,
For each pulseless form I yield, O Rose !
An angel soul to Heaven !"

M. E. HEWITT.

THE DYING ROSE-BUD'S LAMENT.

Ah me! ah! wo is me!
That I should perish now,
With the dear sunlight just let in
Upon my balmy brow!

My leaves, instinct with glowing life,
Were quivering to uncloset!
My happy heart with love was rife!
I was almost a Rose!

Nerved by a hope, warm, rich, intense,
Already I had risen
Above my cage's curving fence,
My green and graceful prison!

My pouting lips, by Zephyr press'd,
Were just prepared to part,
And whisper to the wooing wind
The rapture of my heart!

In new-born fancies reveling,
My mossy cell half riven,
Each thrilling leaflet seemed a wing
To bear me into heaven.

How oft, while yet an infant flower,
My crimson cheek I've laid
Against the green bars of my bower,
Impatient of the shade!

And pressing up and peeping through
Its small but precious vistas,
Sighed for the lovely light and dew
That blessed my elder sisters!

I saw the sweet breeze rippling o'er
Their leaves that loved the play,
Though the light thief stole all their store
Of dew-drop gems away.

I thought how happy I should be
Such diamond wreaths to wear,
And frolic with a Rose's glee,
With sunbeam, bird, and air!

Ah me! ah! wo is me! that I,
Ere yet my leaves uncloze,
With all my wealth of sweets, must die
Before I am a Rose!

FRANCES S. OSGOOD.

THE HALF-BLOWN ROSE.

SUGGESTED BY A PORTRAIT.

'Tis just the flower she ought to wear—
The simple flower the painter chose;
And are they not a charming pair—
The modest girl—the half-blown Rose?

The glowing bud has stolen up,
With tender smile and blushing grace,
And o'er its mossy, clasping cup
In bashful pride reveals its face.

The maiden too, with timid feet,
Has sprung from childhood's verdant bower,
And lightly left its limit sweet,
For woman's lot of shine and shower.

See! from its veil of silken hair,
That bathes her cheek in clusters bright,
Her sweet face, like a blossom fair,
Reveals its wealth of bloom and light.

How softly blends with childhood's smile
That maiden mien of pure repose!
Oh, seems she not herself the while—
A breathing flower—a half-blown Rose?

F. S. OSGOOD.

THE MOSS-ROSE.

"I've a call to make," said the rich Moss-Rose,
"At the house of a lady fair;
Cousin China-Rose, if you'll go with me,
I'll introduce you there.

"'Tis New Year's day; come, do not stay,
But get on your cloak and hood;
You've moped so long by the green-house fire,
That a walk will do you good."

Then China's Yellow Rose replied,
"You've a terrible climate, dear;
It has made me old before my time,
And bilious too, I fear!

"But I'll put my muff and tippet on,
Since you needs must have me go;
And yet I'm sure I heard a blast,
And saw a flake of snow."

The Moss-Rose wrapped her damask robe
 Close round her queenly form,
 And led her nervous friend along,
 Who trembled at the storm.

But the beautiful lady welcomed them
 With such a radiant eye,
 That they fancied summer had come again,
 And winter was quite gone by.

They took their India-rubbers off,
 And laid their hoods away,
 And whisper'd in each other's ear,
 "We should like to spend the day."

She charmed them with her tuneful voice,
 Till both were unable to stir;
 So there they staid,—and the flowers of love
 Have found their home with her.

L. H. SIGOURNEY.

THE ROSE.

Its velvet lips the bashful Rose begun
 To show, and catch the kisses of the sun:
 Some fuller blown, their crimson honors shed;
 Sweet smelt the golden chives that graced their head.

FAWKES.

And first of all, the Rose; because its breath
 Is rich beyond the rest; and when it dies,
 It doth bequeath a charm to sweeten death.

BARRY CORNWALL.

His queen, the garden-queen,—his Rose,
 Unbent by winds, unchill'd by snows,

Far from the winters of the west,
By every breeze and season blest,
Returns the sweets by Nature given,
In softest incense back to heaven,
And grateful yields that smiling sky
Her fairest hue and fragrant sigh.

LORD BYRON.

A single Rose is shedding there
Its lonely lustre, meek and pale :
It looks as planted by despair—
So white, so faint, the slightest gale
Might whirl the leaves on high ;
And yet, though storms and blasts assail,
And hands more rude than wintry sky,
May wring it from the stem in vain—
To-morrow sees it bloom again !
The stalk some spirit quickly rears,
And waters with celestial tears ;
For well may maids of Helle deem
That this can be no earthly flower,
Which mocks the tempest's withering hour,
And buds unshelter'd by a bower ;
Nor droops though Spring refuse her shower,
Nor woos the Summer beam :
To it the livelong night there sings
A bird unseen, but not remote ;
Invisible his airy wings,
But soft as harp that Houris strings,
His lone, entrancing note.

BRIDE OF ABYDOS.

Wound in the hedge-rows' oaken boughs
The woodbine's tassels float in air,
And, blushing, the uncultured Rose
Hangs high her beauteous blossoms there.

SMITH.

THE MOSS-ROSE.

The Angel of the flowers, one day,
 Beneath a Rose-tree sleeping lay—
 That spirit to whom charge is given
 To bathe young buds in dews of heaven;
 Awaking from his light repose,
 The Angel whisper'd to the Rose:
 "O fondest object of my care,
 Still fairest found where all are fair,
 For the sweet shade thou giv'st to me;
 Ask what thou wilt, 't is granted thee!"

"Then," said the Rose, with deepen'd glow,
 "On me another grace bestow!"
 The spirit paused in silent thought;
 What grace was there that flower had not?
 'T was but a moment—o'er the Rose
 A veil of moss the angel throws;
 And, robed in Nature's simplest weed,
 Could there a flower that Rose exceed?

FROM THE GERMAN.

Krummacher

SHARON'S ROSE.

Go, Warrior, pluck the laurel bough,
 And bind it round thy reeking brow;
 Ye sons of pleasure blithely twine
 A chaplet of the purple vine;
 And Beauty cull each blushing flower
 That ever deck'd the sylvan bower;
 No wreath is bright, no garland fair,
 Unless sweet Sharon's Rose be there.

The laurel branch will droop and die,
The vine its purple fruit deny,
The wreath that smiling beauty twined
Will leave no lingering bud behind ;
For beauty's wreath and beauty's bloom
In vain would shun the withering tomb,
Where nought is bright and nought is fair,
Unless sweet Sharon's Rose be there.

Bright blossom ! of immortal bloom,
Of fadeless hue, and sweet perfume,
Far in the desert's dreary waste,
In lone neglected beauty placed :
Let others seek the blushing bower,
And cull the frail and fading flower,
But I'll to dreariest wilds repair,
If Sharon's deathless Rose be there.

When Nature's hand, with cunning care,
No more the opening bud shall rear,
But, hurled by heaven's avenging Sire,
Descends the earth-consuming fire,
And desolation's hurrying blast,
O'er all the sadden'd scene has past,
There is a clime for ever fair,
And Sharon's Rose shall flourish there.

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AN EXTRACT.

This mighty oak—  
By whose immovable stem I stand, and seem  
Almost annihilated—not a prince,  
In all the proud old world beyond the deep,  
E'er wore his crown as loftily as he



Wears the green coronal of leaves with which  
 Thy hand has graced him. Nestled at his root  
 Is beauty, such as blossoms not in the glare  
 Of the broad sun. That delicate forest Rose,  
 With scented breath, and look so like a smile,  
 Seems, as it issues from the shapeless mould,  
 An emanation of the indwelling Life,  
 A visible token of the upholding Love,  
 That are the soul of this wide universe.

\* \* \* \* \*

### WHY WILL A ROSE-BUD BLOW?

I wish the bud would never blow,  
 'Tis prettier and purer so ;  
 It blushes through its bower of green,  
 And peeps above the mossy screen  
 So timidly, I cannot bear  
 To have it open to the air.  
 I kissed it o'er and o'er again,  
 As if my kisses were a chain,  
 To close the quivering leaflets fast,  
 And make for once—a rose-bud last !  
 But kisses are but feeble links  
 For changeful things, like flowers, methinks ;  
 The wayward rose-leaves, one by one,  
 Uncurl'd and look'd up to the sun,  
 With their sweet flushes fainter growing,  
 I could not keep my bud from blowing !  
 Ah ! there upon my hand it lay,  
 And faded, faded fast away ;  
 You might have thought you heard it sighing,  
 It look'd so mournfully in dying.



I wish it were a rose-bud now,  
I wish 'twere only hiding yet,  
With timid grace its blushing brow,  
Behind the green that shelter'd it.  
I had not written were it so ;  
Why would the silly rose-bud blow ?

FRANCES S. OSGOOD.

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THE ROSE.

Though many a flower has graced the lay
And formed the theme of poets' song—
Has gently flowed in Grecian phrase,
Or tripped upon the Roman's tongue ;
Yet, still, in ancient song and story
The Rose shines forth in beauty rare,
Enveloped with a halo bright,
And made so glorious, rich, and fair,
That all the flowers must yield their seat,
And lay their beauty at its feet.
Anacreon sang its primal birth,
Old Homer praised its form of grace,
Catullus boasted of its charms,
Horace, its richly tinted face :
In fair Italia glowing words,
Tasso and Metastasio sang ;
And 'mong the groves of far Cathay
The Persian Hafiz' accents rang.
The flowing tones of old Castile,
From Camoens and Sannazar,
And in our own pure English tongue
It was the signal note of war ;
In many a poet's verse its beauty shone,—
Milton, the Bard of Avon and the Great Unknown.
High valued were its flowers bright

By Helle's maids of yore ;
It graced their scenes of festive glee
In the classic vales of Arcady,
And all the honors bore ;
And shed its fragrance on the breeze
That swept through academic grove,
Where sages with their scholars rove—
The land of Pericles.
In the sunny clime of Suristan,
On India's burning shore,
Amid the Brahmin's sacred shades,
Or in the wreaths that Persian maids,
Sporting in bright and sunny glades,
In graceful beauty wore ;
Upon the banks of Jordan's stream,
Still flowing softly on,
Where Judah's maidens once did lave,
Or where the lofty cedars wave,
On time-worn Lebanon ;
The Rose is still most rich and sweet,
And wears the crown for beauty meet.
I have basked in the beauty of southern climes,
And wandered through groves of palm and limes,
Where dark-eyed Spanish girls
Would linger in their myrtle bowers,—
With garlands rich of orange flowers
Would weave their raven curls,
And fasten 'mid their lustrous hair
The fire-fly's glittering light,
Which, brighter than the diamond's sheen,
Bursts on the dazzled sight.
But yet I would not give for these,
Produce of tropic sun and breeze—
For all the flowers in beauty there—
The Rose our northern maidens wear.

I've crossed the Andes' lofty height,
Its mountains, forest-crowned,
And 'mong the devious, tangled paths
Of tropic thickets wound.
In fair Aragua's fertile vale,
In Hayti's fields of bloom,
I've marked the prickly Cactus tribe
Its richest tints assume.
I've passed through fragrant Coffee groves,
By the tall Bucara tree,
And by the Cocoa and the Palm,
With the Trupeol warbling free ;
Upon the flower-clad turf, and where
The rich Orchidia climbs in air.
But not mid all this gorgeous bloom,
By tropic climate wove,
Nor Florida's rich Magnolia
And fragrant Orange grove ;
Nor the graceful vines of southern France,
Nor Italy's fair bowers,
Nor England's lofty domes of glass
All filled with gorgeous flowers ;
Nor in our own wide prairie land,
With bud and bloom on every hand,
Is there a single flower that grows
Can vie in beauty with the Rose.

Then seek, in southern, tropic air,
And in our northern glade,
And in the bright and gay parterre,
And by the forest shade,
Where every flower, and leaf, and tree,
In graceful blending met,
Presents new beauty to the eye,
Of azure or of jet ;

And take each blossom, rich and rare,
Which thou may'st find in beauty there;
Combine their color, form, and grace,
And each unpleasant tint erase;
Then recreate the loveliest flower
That e'er shed fragrance in a bower;
Let all its sweets and charms uncloze;
It cannot equal yet the Rose.

S. B. P.

CULTURE OF THE ROSE.

CHAPTER IX.

GENERAL CULTURE OF THE ROSE.

As before stated, the Rose was the theme of the earliest poets of antiquity ; and it was doubtless one of the first plants selected to adorn the gardens which were laid out around the new habitations constructed upon the exchange of the wandering for a civilized mode of life.

The most ancient authors upon husbandry whose works are extant, have all treated of the culture of Roses. Theophrastus among the Greeks ; and among the Romans, Varro, Columella, Palladius, and Pliny. To Pliny are we specially indebted for information on this subject, as the entire fourth chapter of the twentieth book of his Natural History is devoted to Roses ; and they are also occasionally mentioned in other parts of the work. But after all the information thus obtained, much yet remains to be desired ; and although we find in other ancient authors some curious facts bearing upon other points in the history of the Rose, they are mostly so general in their character as to give us very little insight into the actual culture of the Rose at those periods.

The profuseness with which they were used among the Greeks, the Romans, the Egyptians, and other ancient nations, in their religious solemnities, their public ceremonies, and even in the

ordinary customs of private life, would lead us to suppose, and with some degree of correctness, that roses were very abundantly cultivated by them all; and we are inclined to think that their cultivation was then far more general than at the present time, although the art of producing them was in its infancy. However surprising in other respects may have been the progress of the culture of roses within forty years, particularly in France, Holland, and Belgium, there can be little doubt that, although the Romans were acquainted with a much smaller number of varieties than the moderns, yet flowers of those varieties were far more abundant than the aggregate quantity of flowers of all the varieties of roses cultivated at the present day. It cannot be positively asserted, that the Hybrid Perpetual Roses of the present day were unknown at Rome, since the gardeners of that city practised sowing the seeds of the Rose, by which mode many of the most remarkable varieties of that class have been obtained by modern cultivators. The Romans, however, preferred to propagate by cuttings, which produced flowers much sooner than the seed-bed.

But, though the Romans may have had roses of the same species with some of those which we now cultivate, it is scarcely probable that these species could have continued until this period, and escaped the devastation attendant on the revolutions of empire, or the more desolating invasions of the Huns and Goths. Thus it is, that those roses of Pæstum to which allusion is so frequently made by ancient writers, and which, according to Virgil and Pliny, bloomed semi-annually, and were common in the gardens of that city, are not now to be found. Jussieu and Laudresse, two French gentlemen, successively visited Italy, with the express object of finding this twice-bearing Rose in Pæstum or its environs, yet, notwithstanding their carefully prosecuted researches, they could find no traces of it whatever.

Although the number of varieties known to the Romans was very limited, they had discovered a method of making the blooming season continue many months. According to Pliny, the roses of Carthage, in Spain, came forward early and bloomed in

winter ; those of Campania bloomed next in order ; then those of Malta ; and lastly those of Pæstum, which flowered in the Spring and Autumn. It was probably the blooming of this last species, which the gardeners of Rome discovered (in Seneca's time) the secret of retarding by a certain process, or of hastening by means of their warm green-houses.

In the first part of this work, we have cited many passages from ancient authors, which show to what enormous extent was carried the use of roses by the Romans on certain occasions. It is difficult to credit, at this day, the relation of Nero's extravagance (which is however attested by Suetonius), when it is told that in one fête alone he expended in roses *only* more than four millions of sesterces, or one hundred thousand dollars. It would be no easy matter, even at the present period of abundant cultivation of roses, to obtain from all the nurseries of England, France, and America together, roses sufficient to amount to so large a sum.

The Romans derived the use of this flower from the Greeks. In Greece, and throughout the East, roses were cultivated, not only for the various purposes we have mentioned, but also for the extraction of their perfumes. Among the many plans which they adopted for preserving the flower, was that of cutting off the top of a reed, splitting it down a short distance, and enclosing in it a number of rose-buds, which, being bound around with papyrus, prevented their fragrance from escaping. The Greeks also deemed it a great addition to the fragrance of the Rose, to plant garlic near its roots. The island of Rhodes, which has successively borne many names, was particularly indebted to the culture of roses for that which it bears at this day. It was the Isle of Roses, the Greek for Rose being *Ρόδον*,—Rodon.

Medals of Rhodes, whose reverse impressions present a rose in bloom on one side and the sunflower on the other, are to be found even now in cabinets of curiosities.

Extravagance in roses, among the Romans, kept pace with the increase of their power, until they at length desired them at all seasons. At first they procured their winter's supply from

Egypt, but subsequently attained themselves such skill in their culture as to produce them in abundance, even at the coldest season of the year; and, according to Seneca, by means of green-houses, heated by pipes filled with hot water. During the reign of Domitian, the forcing of roses was carried to such perfection, and flowers produced in winter in so great abundance, that those brought from Egypt, as before mentioned, excited only the contempt of the citizens of the world's metropolis.

This fact, as also handed down to us by the epigram of Martial, is of great assistance in estimating the importance of rose-culture at that period, and in showing how the art of cultivating this plant had spread, and how it was already far advanced among the ancient Romans and their contemporaries.

If the Egyptians cultivated roses for transportation to Rome during the winter, they must have had very extensive plantations for the purpose. The exportation could not have been of loose flowers, for they would have been withered long before the termination of the voyage; neither could it have been of rooted plants in a dormant state, as nurserymen now send them to every part of the world, because the Romans had at that time no means of causing them to vegetate and bloom in the winter. On the contrary, the cultivators at Alexandria and Memphis must, of necessity, have sent them away in the vases and boxes in which they had planted them with that object, and when they were just beginning to break from the bud, in order that they might arrive at Rome at the moment they commenced expanding.

At that remote period, when navigation was far behind its present state of perfection, the voyage from the mouth of the Nile to the coast of Italy occupied more than twenty days. When this long voyage is considered, and also the quantity of roses required by the Romans to enwreath their crowns and garlands, to cover their tables and couches, and the pavements of their festive halls, and to surround the urns which contained the ashes of their dead, it is evident that the Egyptians, who traded in roses, in order to satisfy the prodigality of the Romans, would be

compelled to keep in readiness a certain number of vessels to be laden with boxes or vases of rose-plants, so prepared as not to bloom before their delivery at Rome. The cost of roses thus delivered in Rome must have been immense, but we do not find a single passage in ancient authors which can give any light on this point; they only tell us that nothing for the gratification of luxury was considered too costly by the wealthy Roman citizens. Nor do they afford more positive information as to the species of Rose cultivated on the borders of the Nile, to gratify this taste of the Romans. According to Delile, there were found in Egypt, at the time of the French expedition into that country, only the White Rose and the Centifolia or hundred-leafed—two species not very susceptible of either a forcing or retarding culture. The only Rose known at that time, which bloomed in the winter, was the Rose of Pæstum, referred to by Virgil, as "*biferique rosaria Pæsti*,"—and which was probably the same as our monthly Damask Rose, and which produced in Egypt and Rome flowers at all seasons, as the Damask does now with us, under a proper mode of culture.

The extent to which the culture and commerce of roses was carried among the Romans, is shown by the fact, that, although they had confounded the tree and its flowers under one name—that of *Rosa*, they, nevertheless, gave particular appellations to the gardens, or ground planted with rose-bushes. They were termed a *Rosarium*, or a *Rosetum*. Ovid says, "*Quot amæna Rosaria flores*." The dealer in roses was also designated by the distinctive appellation of *Rosarius*.

In the latter part of the decline of the Roman Empire, when paganism still existed to a great degree, there arose a people, who formed as it were the connecting-link between the ancient and modern world—a people who acknowledged but one Supreme Ruler, and his sole vicegerent Mahomet; a people whose origin was among the wildest tribes of Ishmael's descendants, who possessed in a great degree the luxuries of civilized life, and among whom the arts, sciences, and agriculture were very flour-

ishing for many ages. Among the Moors of Spain, the culture of the Rose was pursued with as much scientific and practical method as at the present day, but with somewhat less happy results. When in Paris, some two years since, we became acquainted with M. Hardy, the chief director of the Luxembourg gardens, and who is well known to rose growers, by the many beautiful varieties which he has originated. His interest in this subject was very great, and in 1828 he published, in the *Journal des Jardins*, some interesting observations which he had extracted from a manuscript of M. de la Neuville. The latter having been employed as military superintendent in Spain, during the war of 1823, translated from a Spanish version some parts of an Arabian work upon culture in general, in which that of the Rose was mentioned, with some important particulars. It stated that the Moors, who formerly conquered Spain, attached the highest value to this most beautiful of their flowers, and cultivated it with as much care as ourselves. "According to Abu-el-Jaïr," says the translation, "there are roses of many colors—carnation white—fallow or yellow—lapis-lazuli, or sky-blue. Some are of this last color on the outside, and yellow within. In the East they are acquainted with roses which are variegated with yellow and sky-blue, the inside of the corolla being of the one color, and the outside the other. The yellow-heart is very common in Tripoli and Syria, and the blue-heart is found on the coast of Alexandria." To us, at the present day, this relation may with reason seem incredible, since amid the numerous varieties now existing, and the skill of their cultivators, we have in no instance been able to obtain a blue Rose. Abu-el-Jaïr, may have ventured to state it as a fact, without proper authority, for, according to M. de la Neuville, Abu-Abdallah-ebu-el-Fazel, another nearly contemporaneous author, enumerated a variety of roses without mentioning the blue. "There are," says this last author, "four varieties of roses: the first is named the Double White; it has an exquisite odor, and its cup unites more than a hundred petals: the second is the Yellow, which is of a golden color and bright as the jonquil; then the Purple, and lastly the

flesh-colored, which is the most common of them all." Farther on the same author adds: "The number of species is supposed to be large: the Mountain or Wild; the Double, which is variegated with red and white shades; and the Chinese. The Double, however, is the most beautiful, and is composed of 40 to 50 petals."

The Moors multiplied roses by all the various methods which are employed at this day: by suckers from the root, by cuttings, by budding, and by grafting. The pruning-knife was also freely used, in order to form regular heads.

There is a farther translation of De la Neuville, from a Spanish version of the "Book of Agriculture," written by Ebu-Alwan, who lived in the 12th century, and who, in addition to his own experience, quoted largely from some Chaldaic and Arabic writers. He states that the Moors practised two methods of sowing the seeds of the Rose. The first was in earthen pans—a mode adapted to delicate plants; they were watered immediately after being sown, and afterward twice a week until autumn, when such care became unnecessary. The other method was sowing broadcast as grain is sown, then covering the seed-beds an inch deep with carefully sifted manure or fine mould, and giving them the requisite watering. The plants from these seed-beds did not produce flowers until the third year after their being thus prepared, and until they had been transplanted into squares or borders; such is still the case with nearly all our summer roses, the only kind the Moors appear to have possessed. They also understood the art of forcing roses. "If you wish," says Haj, another author, "the Rose tree to bloom in autumn, you must choose one that has been accustomed to periodical waterings; you must deprive it of water entirely during the heat of summer until August, and then give it an abundance of moisture; this will hasten its growth, and cause the expansion of its flowers in great profusion, without impairing its ability to bloom the ensuing spring, as usual." "Or else," adds the same author, "in the month of October, burn the old branches to the level of the earth, moisten the soil for eight consecutive days, and then suspend the watering; alternate these periods of

moisture and drought as many as five times, and probably in about sixty days, or before the end of autumn, the roots will have thrown out vigorous branches, which will in due time be loaded with flowers, without destroying the ability of the plant to bloom again the following spring." The climate in which the Moors lived—that of Cordova, Grenada, and Seville, where the winter is very much like our weather in mid-autumn—was very favorable to the cultivation of the Rose. In this country the same results could doubtless be obtained in the Carolinas, and the experiment would be well worth trying, even in the latitude of New York. It would be no small triumph to obtain an autumnal bloom of the many beautiful varieties of French, Moss, or Provence Roses. Haj has also given the method of keeping the Rose in bud, in order to prolong its period of blooming. His process, however, is of so uncertain a character as scarcely to merit an insertion here. The manuscript of De la Neuville also contains particular directions for propagating roses, and for planting hedges of the Eglantine to protect the vineyards and gardens, and at the same time to serve as stocks for grafting. Nothing is omitted in the Arabian treatise which pertains to the management of this shrub; the manner of cultivating, weeding, transplanting, watering, &c., are all particularly explained. Among a variety of curious matters, it contains the process by which, for the purpose of embellishing their gardens, they produced the appearance of trees whose tops are loaded with roses. A hollow pipe, four feet long, or more if the top was to be large, was obtained, of a well-proportioned diameter, set upright to resemble the trunk of a tree, and filled with earth or sand in a suitable state of moisture. In the top of this pipe were planted several varieties of roses, of different colors, which rooting freely in the earth around them, soon formed a bushy head and represented a third-class tree, clothed with rich foliage and beautiful flowers.

This plan could still be practised with success; and we can scarcely imagine more beautiful objects in a lawn than a number of these pipes, of various heights, single and in groups, some low with the small heads of the China or Tea roses, others high

and with the large robust branches of the La Reine and other Perpetuals, and others again planted with some delicate climbing roses, whose branches falling down, would form a weeping tree of a most unique, graceful, and showy character. The pipes could be made of earthenware, tin or wood, and be painted in imitation of the bark of a tree. Still better would be the trunk of a small tree, hollowed out for the purpose, which, with the bark on, would puzzle many a close observer, and which could show a luxuriant head of leaves and flowers on the most sterile soil that ever formed a lawn.

From what has been said on the culture of roses among the Moors in Spain, there can be no doubt that they had made great progress therein; and with the exception of a few statements, evidently unfounded in fact, as the grafting of the Rose on the almond, the apple, the jujube, and other trees, the little treatise translated by De la Neuville certainly contains most excellent remarks upon the culture of roses, whether we compare them with what the ancients have left us, or even with those of the various writers on Rose culture in Europe and America within the last half century.

As roses were so frequently propagated from the seed by the Moors, they must have known quite a number of varieties, exclusive of all those they had brought or obtained from the East. The Yellow Rose, unknown to us until recently, was apparently familiar to them; and the Blue Rose, of which their manuscripts speak, is now extinct, if it indeed ever existed; for amid the infinite variety of roses, of every color and shade, produced from seed in modern times, no one has yet obtained a purely Blue Rose, and its former existence may well seem to us incredible.

The Marquis d'Orbessan, in an essay on Roses, read before the French Academy of Sciences at Toulouse, in 1752, stated that he had seen blue roses growing wild near Turin, and that they were moreover quite common there. After this testimony, therefore, and that of the Arabian author, blue roses can scarcely be considered impossible, but only a very rare production—a sort of *lusus naturæ*.

The Moorish treatise translated by De la Neuville also describes a process for changing the color of roses, which, though extremely doubtful, may be worthy of insertion here, and may induce some curious experiments. "They dig," says the author, "around the plant in December, and leave it standing in the earth in its vertical position. Then the black pellicle which covers the principal roots is stripped off, without detaching it from the base of the plant. This can be performed by a longitudinal incision with a knife, which raises the pellicle delicately to the right and left, without cutting it above or below. The space between the pellicle and the root itself is then filled with strongly-scented saffron, reduced to an impalpable powder. The root thus stuffed, should be wrapped with a piece of linen securely tied, then surrounded with an oily clay, and finally covered over with earth. The plant will then produce roses of a saffron color. I recommend this process," continues the author, "because I have tried it myself, and obtained roses of a rich, agreeable color. If deep blue roses are wanted, *falch*, a brilliant indigo, should be used."

"A citizen of Damascus informs me," wrote Ebu-Alwan, "that he dissolved indigo in common water, and with the tincture assiduously watered a plant from the first of October till the commencement of active vegetation, and that the roses which it produced were of a very agreeable deep blue." Haj says that he thinks this story was made for amusement.

Respecting the first process, there is no doubt that the absorbent powers of the plant would be quite sufficient to take up a large portion of the indigo thus applied to the roots, and the solution would no doubt pass into the branches; and the question can only be whether, when so absorbed, its properties remain sufficiently unchanged to affect the color of the leaf or flower. The experiment is a curious one, and would be well worth the trial. Some singular result might possibly be attained. It is only by frequent experiment, and by a bold travel on the untrodden fields of what may be deemed the wildest conjecture, that any new and singular result can be attained. Ten years ago,

the man who should have foretold that the flickering shadow would be made to stand still, and that intelligence would be sent a thousand miles with the quickness of the lightning's flash, would have subjected himself to the strongest ridicule ; yet these results have both been obtained—one by Daguerre, and the other by one of our own countrymen. No one, then, should be deterred from experiments of the nature above cited, from the dread of ridicule ; but when such fear is upon him, let him recollect, that after the invention of the Daguerreotype and the Magnetic Telegraph, nothing can be deemed impossible or incredible, respecting the natural agents which have been placed by Supreme Wisdom in the hands of man.

If it is found by actual and repeated experiment, that the Arabian process will not produce blue roses, may there not be some other mode to attain that result ? It is well known that the color of the flowers of the *Hydrangea* frequently passes from a light rose into a deep blue. This is generally attributed to the presence in the soil of some peculiar chemical substance. It may be possible to ascertain this substance by careful and repeated analyses of the soil ; and if obtained, and placed in the soil in which the Rose is grown, it would very probably produce the result that we observe in the *Hydrangea*. This also is an interesting experiment, and would be well worth the trial. It is true that the *Hydrangeas*, in a part of our grounds, have the past year been nearly all blue without any care of our own, while roses grown within a few feet of them have been unchanged. This peculiarity, therefore, in the *Hydrangea*, may be owing to the presence in its roots of some chemical substance, which, combining with another in the soil, produces the unique result which we observe in this plant alone. These two chemical substances could also probably be discovered, if the subject were taken up by some skilful chemist and carefully investigated, with the assistance of an intelligent and practical horticulturist. Without absolutely asserting that such will be the results, I think we need not despair of obtaining roses of various singular shades, by cultivating them in soil with whose constituent elements we

have made ourselves familiar. We may also hope to obtain happy results by sowing seeds in the same soil, or the effect may be still farther assisted by watering the plants with a solution of certain chemical substances. If, by any of the above processes the desired result should at some future time be fortunately attained, the plant could probably not be placed again in ordinary soil without losing its color, but would need that particular earth which has power to preserve its acquired hue—as the *Hydrangea*, when taken from this peculiar soil, will lose its blue and resume the natural pink of its species.

Besides the Moorish cultivation in Spain, the Rose has been an object of culture to a great extent in other countries. It has been cultivated principally for the beauty of its flowers, but in many parts of Europe and Asia, and in the north of Africa, its culture has been pursued for commercial purposes. Of its abundance in Palestine, some conception may be formed from the statement of travelers, that they have not only seen them wild and in great profusion in the vicinity of Jerusalem, but have found them in hedges, intermingled with pomegranate trees. Doubday states that, when the Eastern Christians made one of their processions in the Church of the Holy Sepulchre at Jerusalem, which continued some two hours, many persons were present with sacks full of rose-petals, which they threw by handfuls on the people, and in such immense quantities, that many were covered with them, and they were scattered all over the pavement. In Syria and Persia it has been cultivated from a very early period, and the ancient name of the former, *Suristan*, is said to signify the land of roses. Damascus, Cashmere, Barbary, and Fayoum in Egypt, all cultivated the Rose extensively for its distilled oil or essence. Very little is extant respecting the culture of the Rose in the middle ages, but that it was cultivated and valued, is known by its having been worn by knights at the tournament, as an emblem of their devotion to grace and beauty. According to Loudon, "Ludovico Verthema, who traveled in the East in 1503, observed that Tæssa was particularly celebrated for roses, and that he saw a great quantity

of these flowers at Calicut." The Rose is to this day also extensively cultivated in India, and for commercial purposes perhaps in greater abundance than is now known in any other country. Bishop Heber states that "Ghazepoor is celebrated throughout India for the wholesomeness of its air and the beauty and extent of its rose gardens. The Rose-fields, which occupy many hundred acres in the neighborhood, are described as, at the proper season, extremely beautiful. They are cultivated for distillation and for making 'Attar of Roses.'" He states also, that "many roses were growing in the garden of the palace of Delhi, and the fountain pipes were carved with images of roses." Another writer describes in glowing colors the beauty of Ghazepoor, the Gul-istan (the rosebeds) of Bengal. "In the spring of the year, an extent of miles around the town presents to the eye a continual garden of roses, than which nothing can be more beautiful and fragrant. The sight is perfectly dazzling; the plain, as far as the eye can reach, extending in the same bespangled carpet of red and green. The breezes too are loaded with the sweet odor which is wafted far across the river Ganges."

These statements sufficiently evince that the Rose was not only valued by the Hindoos as an article of commerce, but was intimately associated with their ideas of pleasure and enjoyment.

Persia, however, was above all other countries pre-eminent for roses. "Sir John Chardin, in 1686, found the gardens of the Persians without parterres, labyrinths, and other ornaments of European gardens, but filled with lilies, peach trees, and roses; and all modern travelers bear testimony to the esteem in which this flower is held in the East." Sir Wm. Ousley tells us, in his travels in Persia, in 1819, that when he entered the flower garden belonging to the Governor of the Castle, near Farso, he was overwhelmed with roses; and Jackson, in his *Journey, &c.*, says that the roses of the Sinan Nile, or Garden of the Nile, are unequaled; and mattresses are made of their leaves, for men of rank to recline upon. Buckingham speaks of the rose plantations of Damascus as occupying an area of many acres, about three miles from that city. Sir Robert Ker Porter, speaking of the garden of one of the

royal palaces of Persia, says: "I was struck with the appearance of two rose trees, full fourteen feet high, laden with thousands of flowers, in every degree of expansion, and of a bloom and delicacy of scent that imbued the whole atmosphere with exquisite perfume. Indeed, I believe that in no country in the world does the rose grow in such perfection as in Persia; in no country is it so cultivated and prized by the natives. Their gardens and courts are crowded by its plants, their rooms ornamented with roses, filled with its gathered branches, and every bath strewn with the full-blown flowers, plucked with the ever-replenished stems. * *

But in this delicious garden of Negaaristan, the eye and the smell are not the only senses regaled by the presence of the Rose: the ear is enchanted by the wild and beautiful notes of multitudes of nightingales, whose warblings seem to increase in melody and softness, with the unfolding of their favorite flowers. Here, indeed, the stranger is more powerfully reminded, that he is in the genuine country of the nightingale and the Rose." Rivers mentions that Sir John Malcolm told him, that when in Persia he had once breakfasted on an immense heap, or rather mount, of roses, which the Persians had raised in honor of him. The rose of Cashmere has been long celebrated in the East, for its brilliancy and delicacy of odor—

" Who has not heard of the Vale of Cashmere,
With its Roses, the brightest, that earth ever gave?"

Throughout the whole season during which the roses remained in bloom in this beautiful valley, the Feast of Roses was kept with great rejoicing, and an entire abandonment to pleasure. At this time, a great number of tents were pitched, and multitudes of men, women, boys and girls, were dancing and singing to the music of their various instruments.

All that has been handed down to us, and all we know at the present time of the climate and productions of Persia, and the customs of its inhabitants, prove that it was emphatically the land of roses; and all that we can gather from its history or tradition, evinces, that to the inhabitants of the East, including the

Hindoos and the Moors of Spain, is this beautiful flower indebted for the most careful and abundant cultivation, and for a due appreciation of its merits.

At the present time the Rose is cultivated throughout the civilized world. Loudon speaks of hedges of mixed Provence Roses, in the garden of Rosenstein, in Germany, and also of their profusion in the public garden of Frankfort. They are found in the gardens of Valencia, in Spain, and Sir John Carr, speaking of the seat of a Spanish gentleman near Tarragona, says, "the doors of the dining room open into a small garden, the walls of which are covered with myrtles, jasmines, and roses." In the Botanic garden of Madrid, rose trees are used for dividing hedges, and the flower is a favorite throughout Spain.

Among the Spanish ladies, the Rose is highly valued, and with the orange flower, is a favorite ornament for the hair. We have frequently been struck, while traveling in the Spanish West Indies, and in some parts of South America, with the careful nurture and attention bestowed on a single rose bush, and the delight evinced at its bloom, while all around in natural luxuriance were the most beautiful and gorgeous plants and flowers which the tropics can produce. The brilliant cactus, the beautiful oleander, the singular orchidæa, and the delicate and fragrant flowers of the coffee and orange, seemed cast into the shade by the ancient and well known Rose.

I well recollect, that on returning one day from a ride into the country, where I had been luxuriating in the gorgeous splendor of a tropical forest, the fair daughter of my hostess wished to introduce me to a flower, which, in her opinion, far surpassed all that I had seen; she accompanied me to the top of the flat-roofed house, used at the South as a place of evening resort, and there, in one corner, I found a thrifty plant of the Tea Rose, which to her infinite delight, was just showing above its glossy and delicate young leaves, a little ruby-tipped bud. This little plant had been the object of long and careful nursing, and her attention was now about to be rewarded by a fine and perfect bloom.

In France, however, is the Rose a pre-eminent object of horti-

culture, both in commercial establishments and in private gardens. The skill of the French has originated many new and beautiful varieties, which are to be found in several of the nurseries in the United States. The French are constantly searching for improvements in horticultural science and practice, with an enthusiasm rarely found in the more cold Englishman, whose skill seems less to consist in the creation of new varieties, than in growing perfectly those already known. None, indeed, can surpass the English in the art of growing fine plants, but we are chiefly indebted to the French for the finest new varieties of the Rose. Such being the case, it is much to be regretted, that so little confidence can be placed in the greater number of French rose-growers; roses from such should never be propagated until their bloom has been tested. To this rule there are some honorable exceptions; of these are Laffay, Vibert, and Verdier, and there may also be others with whom we are not acquainted. Vibert is perhaps the largest rose cultivator in France, and his attention is directed almost exclusively to the culture of this flower and the vine.

Verdier is a smaller cultivator, but said to be correct and fair.

Laffay, although not a large cultivator, has devoted his time almost exclusively to raising new roses from seed, and to him are the admirers of this beautiful flower indebted for many fine varieties. We shall not soon forget our very pleasant visit to Laffay, in the spring of 1845. Although the possessor of considerable property, he lives in a very simple, unostentatious manner, and devotes himself to his favorite pursuit with the utmost interest and enthusiasm. With much warmth of heart and kindness of manner, he unites the courteous hospitality of a French gentleman of the ancient regime; his wife, an animated and pleasant Frenchwoman, is, except in appearance, exactly his counterpart, even to the fondness for rose culture. We were rather disappointed in finding so little method in the arrangement of his grounds. Although every care was taken to ensure correctness, there was not that method in arrangement, that perfect neatness and that regard for artistical effect, which

one always likes to see in the establishment of a man like Laffay. The French are, however, universally behind the English in this respect, although much improvement has been made since the abolition of the Le Notre style of gardening, and the introduction of the natural style, or as they call it, the "Jardin Anglaise." Many of Laffay's fine seedlings were injured by the unprecedented cold of that year, but sufficient were left to produce some fine varieties, which he kindly offered to send us from year to year before placing them in commerce at home. He pursues a regular system of hybridizing, and it is probably owing to his care in this respect that his success has been so far beyond that of other cultivators. M. Hardy, the director of the Luxembourg gardens, has produced some fine varieties, but as we conversed with him only a few minutes, amid the bustle of a horticultural exhibition, we could not obtain from him much information respecting his *modus operandi*.

In Great Britain, although comparatively little attention has been paid to the obtaining of new varieties, the culture is more careful and the nomenclature more correct. The competition excited by their numerous horticultural exhibitions, causes great attention to be given to correct nomenclature and to symmetrical habit of growth. We can imagine nothing more beautiful than some of the plants that we saw at the exhibitions of the London Horticultural Society at Chiswick; every plant was pruned, trained and grown, after an ideal, but perfect model, with its close and luxuriant foliage, its thrifty, symmetrical habit, and the thick, leathery petals of its well-cupped flower. This high standard should be introduced into every society, and if such were the case in this country and the rule carefully obeyed, the character of our exhibitions would in a short time be very materially changed.

T. Rivers is esteemed the most extensive rose cultivator in England, and is also known as the author of a very excellent descriptive work on the Rose. He has also been successful in hybridizing, and has originated some very fine varieties. His attention was at one time directed almost exclusively to the Rose, but it now includes many other nursery articles, and on our visit

to him in 1845, we found him much interested with experiments in fruit culture. Lane, Wood, and Paul, are esteemed very good cultivators, and generally correct in their nomenclature. From these several establishments in England and France have been imported most of the varieties now existing in this country. Their trade with the United States is however comparatively limited, from the great risk of loss by a sea-voyage. We have frequently lost in this way, two-thirds or three-quarters of an importation, to our great annoyance and expense, and it is only by repeated and persevering importations that we have been able to obtain all the desirable varieties.

In the United States the culture of the Rose has been very much neglected, until within a few years. Tulips and dahlias have successively been the rage, and although there has long existed a great variety of roses, comparatively few of them have been cultivated, even in the best gardens of the United States. Now the tide is turning. Dahlias are going out of repute, and the Rose is resuming its ancient empire in the queendom of Flora. The advent of the Bourbon and the Remontant, or Perpetual classes, has no doubt materially aided this change, but it is in a great part owing to the easy culture of the plant, and the intrinsic merits and beauty of the flower. The taste of the horticultural public being thus decidedly for the Rose, a demand will exist for all the information respecting soil, planting, cultivating, &c., and this information we shall endeavor to supply in a simple and concise manner, avoiding as far as possible all technicalities, and adapting it to the use of the cultivator of a single plant in the crowded border of a city garden, or to the more extended culture of a commercial establishment.

Each cultivator has his peculiar mode of doing things, and there may be those who deem the mode laid down here inferior to their own. From these we should be glad to hear, and to make any corrections they may suggest, where such corrections appear to be founded upon true principles. In order to make our work as perfect as possible, we have not hesitated to add to our own experience, all the information derived from a personal in-

specification of French and English nurseries, and to cull from foreign works and periodicals all that may interest our readers. Such information, as far as it coincides with our own experience, we shall gladly incorporate, with the hope that we may be successful in presenting every fact of interest which may exist respecting the cultivation of our favorite flower.

CHAPTER X.

SOIL, SITUATION AND PLANTING.

THE most suitable soil is a strong, rich loam, or vegetable mould mixed with about one quarter its bulk of well-decomposed stable manure. If the soil of the garden where the roses are to be planted, differs materially from this, it should be made to approach it as nearly as possible by the addition of the requisite soil and manure. In a good vegetable garden, the soil, with the addition of a little manure, will grow the Rose well. When the soil, however, is of an inferior character, holes should be dug three or four times the size of the roots of a well-grown rose bush and filled with compost of the above character.

Rivers recommends, as the best compost for roses, rotten dung and pit-sand for cold, clayey soils; and for warm, dry soils, rotten dung and cool loams. He also states that he has found night soil, mixed with the drainings of the dunghill, or even with common ditch or pond water, so as to make a thick liquid, the best possible manure for roses, poured on the surface of the soil twice in winter—one to two gallons to each tree. The soil need not be stirred till spring, and then merely loosened two or three inches deep, with the prongs of a fork; for poor soil, and on lawns, previously removing the turf, this will be found most efficacious. He directs this compost to be applied in the first two winter months, but as our ground is frequently frozen so hard at that time that it cannot absorb the liquid, it would probably be

best to apply it in this country a month earlier. Where a bed or border of roses is to be planted, it is well to dig out the soil to the depth of two or two and a half feet; fill the bottom to the depth of six inches with small stone, and then replace the earth, well fertilized, as directed above. Nothing is more injurious to the Rose than a wet, retentive subsoil; and where expense and trouble are no object, this perfect draining is much the best calculated to ensure a thrifty growth and perfect bloom. A rich and dry soil, is in fact all-important; for otherwise the most double flower will frequently become single or semi-double. We have seen a plant of *La Reine* produce a perfect flower in the green-house, and when removed to an inferior soil, produce flowers almost single. It may therefore be safely laid down as a rule, that it is impossible to make the soil too rich for the Rose, and that in proportion to the fertilizing matter contained therein, provided it is properly decomposed, will be the approximation of the plant and the flower to perfection. The fertility of the soil may be very much assisted by frequent applications of liquid manure, made either of cow dung or guano; the former is always safe; the latter, valuable if properly used, may, in the hands of a careless person, ruin the plant.

In these remarks on fertility of soil, we have no desire to discourage those who may not have a fertile soil, or the means of obtaining the elements of fertility. The Rose will grow and bloom in any soil; the wood will be healthy, but short and small; the flower will be produced, but as we have said before, will be smaller and often semi-double; yet even under these disadvantages, it is still the most desirable flower for the poor man; none other can so cheaply and so well ornament his small yard, or hanging in graceful festoons about his windows, shed forth its bloom and sweetness to enliven his hours of relief from labor, and give his children happiness, from the association of pleasant thought with natural beauty. But the poor man has within his reach more than he supposes of the elements of fertility. The ashes of his hearth, the decomposed turf of the road-side, and the domestic manure, too generally thrown away, all contain some of the best

fertilizing matter, and with proper care, could be made amply sufficient for the production of his flowers and vegetables. The decomposed turf alone would grow roses admirably, although a little manure would be a useful addition.

SITUATION.

The best situation for the Rose is an eastern or northern exposure, rather than a southern; the intensity of the heat of our midsummer often affects injuriously the expansion of the flowers, their color and fragrance. A useful degree of shade can be obtained by planting amidst groups of dwarf roses, pillars, trellises, obelisks, &c., on which climbing roses can be trained, and whose shadow, changing with the sun, would protect the opening bloom and answer the same end as a cool situation. While, however, the Rose requires a cool, airy situation, it should by no means be placed entirely in the shade; a portion of the sun's rays is always necessary to ensure a good bloom. It is from this cause that the bloom of roses is much more certain and perfect in France and this country than in England. In the latter country, the sun is scarcely ever sufficiently powerful to develop all the resources of a plant. The summer of 1846 was unprecedentedly hot throughout England, and all the horticultural journals united in pronouncing the bloom of roses that season unsurpassed by the bloom of any previous year. For climbing roses the situation should not be too exposed, or where they would be liable to encounter heavy winds, which might break off the young shoot and in other ways injure the plant. Our American cities possess in the culture of roses a great advantage over the large towns of England, in the use of anthracite instead of bituminous coal; for, according to Loudon, the Rose will not thrive in towns where the prevailing fuel is of this character, and the bloom will not compare with those produced some ten miles distant. "The first effect of the smoke is to prevent the flower buds from opening freely, next to diminish their number; the leaves then gradually become smaller, and the length of the shoots less, after which the plant weakens by degrees, and in a few years, if a standard, it

dies altogether, or, if a dwarf, barely exists, and seldom if ever flowers."

Such a result, from such a cause, is rarely known here, and the denizen of the city may have his little yard filled with roses whose bloom will be in no way inferior to that of the plants in an extensive lawn or garden.

PLANTING.

All those roses that bloom only once in the year, and also the Perpetuals, or Remontant Roses can be planted in autumn, after the first severe frost. The ends of the roots, which have been broken in taking up, will then form a callus, and the soil will be so thoroughly settled about the roots by the winter rains, that the plant will commence forming new roots early in the spring, and will rapidly make strong and luxuriant shoots. As far north as New York and its vicinity, the Bourbons and the Bengal, with their sub-classes, being more delicate, should not be planted until spring.

If the subsoil is wet and retentive of moisture, the planting of any roses should be deferred until spring, but from our preceding remarks it will be borne in mind that such soil should be well drained before planting, in which case the autumn will still answer.

The plant should be taken up carefully, with all the root possible, bearing in mind that the elements of life are in the root, and every fibre that is lost is so much taken from the future health and prosperity of the plant. The root should then be carefully examined, and every portion that has been bruised should be cut off; all the broken ends should also be cut away as far as they are split or injured. Any root of the character of a tap-root, or growing directly down into the earth, should be cut off; for it is best to encourage only lateral roots, which can more readily partake of the benefits of the rain and sun, and can more effectually absorb the nutriment in the soil.

The hole should then be dug somewhat larger than the root, and the bottom forked, or dug up, and if necessary enriched with the surface soil, which, it is presumed, has been prepared according to preceding directions. Let one hold the plant, while another

throws in the soil ; or if one alone is planting, let him hold the stem just above the root with one hand, and throw in the soil with the other, moving the stem from side to side, and occasionally pulling it upward a little and shaking the root until the soil has worked well among the fibres ; on which much of the subsequent prosperity of the plant depends. If the weather is dry, a little water may be placed in the hole, which should then be filled up and the soil well trodden down about the stem. When planted, it should be very little if at all lower in the ground than before ; very little of the stem should be buried ; and when trodden down, the root should be made firm and solid.

In planting climbing or pillar roses, care should be taken to set the trellis, or pillar, or whatever may be used for their support before the plant is put in the ground ; for if such should be set after the plant has commenced growing vigorously, it will in all probability damage the roots, and give the plant a check from which it will not recover the whole season.

The Rose, even in the best soils, should be taken up every three or four years, and have its roots shortened and pruned ; a portion of the soil in which it grew should also be removed and replaced by soil of the character before described. Where the soil is poor, they should be taken up every other year, and replanted, after renewing the soil as above, or digging it with plenty of manure.

Van Mons states that in Belgium the plants are uniformly taken up at the end of eight years and placed in fresh soil, or they are thrown away and young plants substituted in their place. This substitution of young plants is perhaps the most certain mode of ensuring a continual supply of strong, healthy wood and well-formed flowers.

The Rose may be transplanted at any season, provided the shoots are pruned closely and deprived of all their leaves, and the soil in which they are planted kept well watered. The flowering also may be retarded in this way, and those roses that bloom only once in the season, if they are transplanted just before they are coming into flower, and properly pruned, will bloom in autumn.

CHAPTER XI.

PRUNING AND TRAINING.

IN pruning roses at the time of transplanting, the principal object to be attained is relief to the plant by taking away all the wood and branches which the diminished root may not be able to support. The mode of pruning depends very much upon the condition of the plant. If it is very bushy, all the weaker branches should be cut away, leaving not more than three or four of the strongest shoots, and shortening even those down to a few eyes. If it is desired that the plant should continue dwarf and bushy, the new wood should be cut down to the last two eyes, and every half grown or slender shoot cut out. These two eyes will each throw out a branch; then cut these branches down to the two eyes and again their produce until a symmetrical habit is formed, with close, thick foliage. There should not be sufficient wood allowed to remain to make it crowded; and if there should be danger of this, some of the branches, instead of being cut down to two eyes should be cut out altogether.

Climbing roses, when planted, should be cut down almost to the ground, and also carefully thinned out. Only a few of the strongest branches should be preserved, and the new wood of these cut down to two eyes each.

The preceding remarks are applicable to roses at the time of planting; they should also be pruned every year—the hardy varieties in the autumn or winter, and the more tender in the spring. For all roses that are not liable to have part of their wood killed by the cold, the autumn is decidedly the best time for pruning; the root, having then but little top to support, is left at liberty to store up nutriment for a strong growth the following season. The principal objects in pruning, are the removal of the old wood, because it is generally only the young wood that produces large and fine flowers; the shortening and thinning out of the young wood, that the root, having much less wood to support, may devote all its nutriment to the size and beauty of the flower; and the formation of a symmetrical shape. If an abundant bloom is desired without regard to the size of the flower, only the weak shoots should be cut out, and the strong wood should be shortened very little; each bud will then produce a flower. By this mode, the flowers will be small and the growth of new wood very short, but there will be an abundant and very showy bloom. If, however, the flowers are desired as large and as perfect as possible, all the weak wood should be cut out entirely, and all the strong wood of the last season's formation should be cut down to two eyes. The knife should always be applied directly above a bud and sloping upward from it. The preceding observations apply principally to rose bushes or dwarf roses; with pillar, climbing and tree roses, the practice should be somewhat different. The two former require comparatively little pruning; they require careful thinning out, but should seldom be shortened. The very young side shoots can sometimes be shortened in, to prevent the foliage from becoming too thick and crowded.

PILLARS FOR ROSES can be made of trellis work, of iron rods in different forms, or of wood, but they should enclose a space of at least a foot in diameter. The cheapest plan, and one that will last many years, is to make posts of about $1\frac{1}{2}$ or 2 inches square, out of locust or pitch-pine plank, and connect them with common hoop-iron. They should be the length of a plank—between

twelve and thirteen feet—and should be set three feet in the ground, that they may effectually resist the action of the wind. The Rose having been cut down to the ground, is planted inside of the pillar and will make strong growths the first season. As the leading shoots appear, they should be trained spirally around the outside of the pillar, and sufficiently near each other to enable them to fill up the intermediate space with their foliage. These leading shoots will then form the permanent wood, and the young side shoots, pruned in from year to year, will produce the flowers, and at the flowering season cover the whole pillar with a mass of rich and showy bloom. If the tops of the leading shoots lie down at all, they should be shortened down to the first strong eye, because, if a weak bud is left at the top, its growth will be for a long time weak. The growth of different varieties of roses is very varied; some make delicate shoots and require little room, while others, like the Queen of the Prairies, are exceedingly robust and may require a larger pillar than the size we have mentioned.

Climbing roses require very much the same treatment as pillar roses, and are frequently trained over arches, or in festoons from one pillar to another. In these the weak branches should also be thinned out and the strong ones be allowed to remain without being shortened, as in these an abundant bloom is wanted more than large flowers. In training climbing roses over any flat surface, as a trellis wall or side of a house, the principal point is so to place the leading shoots that all the intermediate space may be filled up with foliage. They can either be trained in fan-shape with side shoots growing out from a main stem, or one leading shoot can be encouraged and trained in parallel horizontal lines to the top, care being taken to preserve sufficient intermediate space for the foliage. Where no shoots are wanted, the buds can be rubbed off before they push out. No weak shoots should be allowed to grow from the bottom, but all the strong ones should be allowed to grow as much as they may. When the intermediate space is filled with young wood and foliage, all the thin, small shoots should be cut out every year and the strongest buds

only allowed to remain, which forming strong branches, will set closely to the wall and preserve a neat appearance.

The production of roses out of season, by forcing, was, as we have shown, well known to the ancient Romans, and from them has been handed down to the present time. But the retarding of roses by means of a regular process of pruning, owes its origin to a comparatively modern date. This process is mentioned both by Lord Bacon and Sir Robert Boyle. The latter says, "It is delivered by the *Lord Verulam*, and other naturalists, that if a rose bush be carefully cut as soon as it is done bearing in the summer, it will again bear roses in the autumn. Of this many have made unsuccessful trials, and thereupon report the affirmation to be false; yet I am very apt to think, that my lord was encouraged by experience to write as he did. For, having been particularly solicitous about the experiment, I find by the relation, both of my own, and other experienced gardeners, that this way of procuring autumnal roses, will, in most rose-bushes, commonly fail, but succeed in some that are good bearers; and, accordingly, having this summer made trial of it, I find that of a row of bushes cut in June, by far the greater number promise no autumnal roses; but one that hath manifested itself to be of a vigorous and prolific nature, is, at this present, indifferently well-stored with those of the damask kind. There may, also, be a mistake in the species of roses; for experienced gardeners inform me that the Musk-Rose will, if it be a lusty plant, bear flowers in autumn without cutting; and, therefore, that may unjustly be ascribed to art, which is the bare production of nature." Thus, in quaint and ancient style, discourseth the wise and pious philosopher, on our favorite flower, and also mentions the fact, that a *red* rose becomes *white*, on being exposed to the fumes of sulphur. This, however, had been observed before Sir Robert's time. Notwithstanding his doubts, it is now a well-established fact, that the blooming of roses may be retarded by cutting them back to two eyes after they have fairly commenced growing, and the flower buds are discoverable. A constant succession can be obtained, where there is a number of plants, by cutting each one

back a shorter or longer distance, or at various periods of its growth. In these cases, however, it very often will not bloom until autumn, because the second effort to produce flowers is much greater than the first, and is not attended with success until late in the season.

However desirable may be this retarding process, it cannot be relied on as a general practice, because the very unusual exertion made to produce the flowers a second time, weakens the plant, and materially affects its prosperity the subsequent year.

There is, indeed, but one kind of summer pruning that is advantageous, which is the thinning out of the flower-buds as soon as they appear, in order that the plant may be burdened with no more than it can fully perfect, and the cutting off all the seed vessels after the flower has expanded and the petals have fallen. Until this last is done, a second bloom cannot readily be obtained from the Bengal Rose and its sub-classes, the Tea and Noisette, which otherwise grow and bloom constantly throughout the season.

In connection with the subject of this chapter, we would impress upon our readers the absolute, the essential importance of cultivation—of constantly stirring the soil in which the Rose is planted; and we scarcely know of more comprehensive directions in a few words than the reply of an experienced horticulturist to one who asked the best mode of growing fine fruits and flowers. The old gentleman replied that the mode could be described in three words, “cultivate, cultivate, cultivate.” After the same manner, we would impress the importance of these three words upon all those who love well-grown and beautiful roses. They are indeed *multum in parvo*—the very essence of successful culture. The soil cannot be ploughed, dug or stirred too much; it should be dug and hoed, not merely to keep down the weeds, but to ensure the health and prosperity of the plant. Cultivation is to all plants and trees, manure, sun and rain. It opens the soil to the nutritious gas of the atmosphere, to the beneficial influence of light, and to the morning and evening dew. It makes the heavy soil light and the light soil heavy; if the earth

is saturated with rain, it dries it ; if burned up with drought, it moistens it. Watering is often beneficial, and is particularly so to roses just before and during the period of bloom ; but in an extremely dry season, if we were obliged to choose between the watering-pot and the spade, we should most unhesitatingly give the preference to the latter.

CHAPTER XII.

POTTING AND FORCING.

"Seek Roses in December, ice in June."—BYRON.

VERY variety of Rose, in the hands of a skilful man, will grow and bloom well in pots, although the Bengal and its subclasses, and the more dwarf Hardy Roses are the most easily managed. The great point in potting is to imitate planting in the open ground as nearly as possible.

The soil used should possess all the nutritious elements required in the open ground, and if possible in somewhat greater abundance. More manure should be used, because the frequent watering required by plants in pots must inevitably wash away a portion of the fertilizing matter. There is nothing better than one portion of stable manure and three of turf or leaf-mould, all well decomposed and mixed with a little pure peat earth. A portion of night-soil, well incorporated with charcoal, is also very excellent. Charcoal is the most powerful absorbent known—it retains the nutritious elements in the night-soil, prevents their being washed away by watering, and gives them out as the plant needs them. English gardeners should bear in mind, that roses require in this climate a stronger soil than in England. Half-gallon pots are the best size at first, from which, by repeated pottings, corresponding with the growth of the plant, they can be shifted to one or two gallon pots. The

size of the pots should, however, be regulated by the extent of the roots ; it should be just sufficiently large to allow the roots to go in without crowding. A few broken pieces of pot or small lumps should be put in the bottom for drainage. When the plant is to be taken from the open ground, select one whose roots are not too large, and with a sharp spade cut around it a ball of earth about the size of the pot, depriving it at the same time of a portion of its top, as directed in remarks on pruning. It should stand in this state about a fortnight, until the roots have become callused, and the plant has become somewhat accustomed to the loss of its roots and branches. It can then be safely taken up at any season and transferred to the pot, which should then be filled in with earth, firm and solid. If potted in the autumn, after the leaves have fallen and the wood become mature, the above previous preparation is not required, but the plant can be taken up without a ball of earth, and after being pruned of its bruised or broken roots, placed in the pot. It should then be protected from the frost and light until it has entirely recovered from its change of habitation, when it can be placed in any cool spot free from frost, until it is wanted for forcing.

Roses may, without difficulty, by the above previous management, be forced to bloom in the latter part of winter, but where their bloom is desired at Christmas or New-Year, they should be gradually prepared for the space of a year previous. To produce roses the latter part of winter, our own management has been simple and effective, giving us as many flowers as a green-house and vinery full of pots could afford. After putting the plants in pots as directed above, pruning them down to eight or ten buds, and hardening them in a shady place, they are placed in the vinery before the frost out of doors can have injured them, and cut down to two buds. The house is then kept as cool as possible, while the frost is carefully excluded by a light fire at night, and on fine days the sashes are opened and plenty of air admitted. They are thus kept in a dormant state until the first of the year, when the heat is gradually increased to about 70° by day and sinking as low as 35° at night. Care is taken to give

them sufficient watering, and in their whole management, to assimilate as nearly as possible to open culture. When the greenfly appears, it is immediately destroyed by fumigation with tobacco and sulphur, and the plants are subsequently syringed with clean water. With this management they soon begin to show signs of life, the bud commences pushing forth its delicate, light green shoot, the leaves then appear, the plant soon growing with luxuriance, is clothed with rich foliage, and about the middle of the third month, the house presents a mass of thrifty growth and perfect bloom.

By the means above described, roses may be forced into bloom the latter part of winter, and by observing some care to bring them into the house at different periods in regular succession, a bloom can be enjoyed through all the spring months until roses bloom in the open ground. This process cannot, however, be continued two years in succession without weakening the plant, and although, if placed in a shady spot and allowed to rest during the summer, it may sufficiently recover to perform the same work another year, it is desirable, if possible, to have fresh plants whose strength has not been exhausted by the excitement and unusual effort attending the production of flowers out of season.

The preceding directions apply more particularly to late forcing, and although the same means, with an earlier application of heat, will produce flowers early in winter, yet the true art of early forcing consists in *gradually* bringing the Rose out of its season; and it is only by this mode that thrifty plants and perfect flowers can be produced before Christmas.

Two years, and sometimes three, should be employed in preparing a Rose for early forcing. Having been prepared by digging around it with a sharp spade some two weeks previously, the plant should be taken up immediately after the first frost, placed in a cold frame a few days to harden, and then taken to the greenhouse or vinery. A moderate heat should then be given it, with plenty of light and air to prevent its being drawn. The flowerbuds should be plucked off as soon as they appear, and no bloom

should be allowed. It will thus make fine growths, and can be plunged in the open ground as soon as danger of frost has passed in the spring. Here it can remain during the summer to ripen its wood, and will require no care except a little watering in dry weather, and an occasional taking up and examination that the roots may not push through the hole of the pot and become fixed in the ground, in which case the plants would make too strong growths, and suffer on being removed from the new-made root. In the tenth month (October) it can be placed in a pot one size larger, pruned by thinning out all the weak branches and shortening the strong ones down to two eyes. It should then go through the same process as before, carefully picking off all the flower-buds, promoting its growth until completed, when let it be put in a cold frame until all danger of frost is over, and then plunge it in the ground to ripen its wood. As its vegetation was started a month earlier the last year, it can now be taken up in the ninth month—re-potted and pruned as before, and then taken into the green-house. The temperature should then be gradually raised to about 55° until it has commenced growing, and then gradually increased to 65° or 70° , giving as much air as can be obtained without lowering the temperature.

All useless shoots should be kept down, and all the flower-buds taken off that threaten to be abortive. In fumigating for the green-fly, care should be taken not to do it too strongly, but repeated and gentle doses at night are better. We have known many fine plants ruined by fumigation in the hands of an inexperienced person. A good bloom can be obtained the second year by this mode, but if the amateur has the patience to wait until a third, he will be rewarded by a thrifty and compact habit, rich foliage, and beautiful bloom for two months before Christmas; and if there are a number of plants to be brought into the green-house a week after each other, he can have them in bloom until the late forced roses appear. At all periods subsequent to their commencement, care should be taken to give them sufficient moisture and as much air as is consistent with the state of growth and the external temperature. Without water they will neither

grow nor bloom well. Under glass, every other day, and in some cases twice a week is sufficient.

The great principle to be borne in mind in forcing roses, is, that sudden excitement is fatal, and that a plant should never be taken from the open ground into a heated house without being gradually prepared for it. This principle is particularly applicable to deciduous roses. The Remontant and Bourbon, the Bengal and its sub-classes, which grow and bloom through the whole year, are not so liable to be injured by exciting treatment.

Cuttings of these that are struck in the spring and planted out in the open ground, may have their tops slightly pruned and their buds all pinched off during the summer, to encourage the formation of wood and of a close head.

About the last days of summer or the first of autumn, they can be taken up and placed in quart pots, with a soil composed of one half loam, one quarter cow-dung, and one quarter peat. After being slightly pruned and left in the shade for a week, they can be placed in frames, protected at night from frost and exposed to the air in mild weather, for some two months, when they can be removed, a few at a time, into the green-house, and subjected to a moderately increased temperature. They will soon bloom well, and will succeed each other throughout the winter and spring, until roses bloom in the open air. Like the deciduous roses, they require to be protected against the green-fly by syringing, and if that does not answer, by fumigation with tobacco.

The Bengal, however, like the deciduous roses will bloom better the second winter than the first, by shifting them into larger pots, pruning them, cutting off all the flower-buds, and giving them very little water the latter part of summer. They can then be put into the frames and treated as before. The Bengal Rose is very easily forced in this way, and if the temperature is at first kept during the day at 45° and gradually increased to 60°, there can be little difficulty in obtaining beautiful and healthy plants. This temperature can be obtained in any green-house or vinery. The latter are becoming more common, and when they are pro-

vided with heating apparatus, there can be nothing better for roses. We have forced them very successfully in one of our own vineries, which is 120 feet long, 12 feet wide, 10 feet high in the rear, $3\frac{1}{2}$ in front, and heated by hot water. But as there may be many who desire a cheaper structure, we will give the description of one used by Rivers (the best rose-grower known), with his mode of managing roses in a structure of that character. "A pit, 10 or 12 feet long and 8 feet wide, just high enough to stand upright in, with a door at one end and a sunken path in the centre, a raised bed on each side of the path, and an 18-inch Arnott's stove at the farther end, opposite to the door, with a pipe leading into a small brick chimney outside (a chimney is indispensable), will give a great abundance of forced roses from February to the end of May. To ensure this, a supply must be kept ready, so that, say twenty may be placed in the forcing pit about the middle of December, a like number in the middle of January, and the same about the middle of February; they must not be pruned till taken into the house, when each shoot should be cut back to two or three buds for the formation of strong shoots. The fire should be lighted at seven in the morning, and suffered to burn out about the same hour in the evening, unless in frosty weather, when it must be kept burning till late at night, so as to exclude the frost; and for this purpose double mats should be placed on the lights. The thermometer should not, by *fire heat*, be higher in the day than 70° during December, January and February; at night it may sink to 35° without injury. The temporary rise in a sunny day is of no consequence, but *no air must be admitted at such times, or the plants will exhaust themselves, and immediately shed their leaves*. When the sun begins to have power, and in sunny weather toward the end of February, the plants may be syringed every morning about 10 o'clock with tepid water, and smoked with tobacco at night on the least appearance of the Aphis or green-fly. To ensure a fine and full crop of flowers, the plants should be established one year in pots, and plunged in tan or saw-dust, in an open, exposed place, that their shoots may be well ripened: the pots must be often removed, or what is better,

place the pots on slates to prevent their roots striking into the ground. With the Remontant or Perpetuals, even if only potted in November previous, a very good crop of flowers may often be obtained, and a second crop better than the first; for the great advantage of forcing Remontant roses is, that after blooming in the green-house or drawing-room, their young shoots may be cut down to within two or three buds of their base, and the plants placed again in the forcing-house, and a second crop of flowers obtained. The same mode may be followed also with the Bourbon, China, and Tea-scented roses; with the latter, indeed, a third crop may be often obtained. Toward the end of March, when the second crop of flowers is coming on, the plants may be gradually inured to the air, by opening the sashes in mild weather. This will make them hardy and robust. Syringing should be practised every morning and evening; but when the flower-buds are ready to open, this must be confined to the stems of the plants and the pots, otherwise the flowers will be injured by the moisture. Air must at first only be given about noon; care must be taken to remove the plants from the forcing-house to the green-house or drawing-room before their blossoms expand; they may then be kept in beauty many days. We have not found the check which the plants receive by this sudden change of temperature at all detrimental. During their second growth, the plants should be watered once a week with manure-water, and the surface of the pot occasionally stirred. Two pounds of guano to ten gallons of water, forms the very best species of liquid manure; this should be stirred before it is used.

“Those that are forced with the greatest facility are worked roses; these seldom or never fail to give an abundant crop of flowers. Stems from six inches to one and a half and two feet are equally eligible; the latter form elegant plants, and I think generally grow with greater luxuriance than dwarfs. China and Tea-scented roses on their own roots are more delicate, and require more care; still one crop of flowers may always be depended upon, even from them. Instead of forcing them for a second crop, it will be better to place them in the green-house; they

will then bloom again finely in May. I find, from experience, that all the autumnal roses may be forced every year without any disadvantages; to ensure their well-doing, they must be removed from the forcing-house early in June, the surface of the pots dressed with rotten manure and plunged in the same, or leaves, or any light substance. Toward the end of September, they should be carefully shifted, removing nearly all the earth from their roots into a compost of light loam and rotten dung, equal quantities (this is, on the whole, the very best compost for potted roses), watered, and again plunged till required for forcing. This shifting would be better performed in June, but, as the weather is then hot and dry, roses worked on the Dog-Rose are apt to suffer. Pots of the sizes called near London, 24s and 16s (the former seven and a half inches deep and eight inches over at the top, the latter eight and a half inches deep and nine inches in diameter), are the best sizes for strong plants of roses for forcing. When potted, the large and unyielding roots should be cut off close, so that the plants may stand in the centre of the pots, the fibrous and small roots merely tipped.

“The treatment recommended for roses in a pit with Arnott’s stove, may be pursued with roses in a house with smoke-flues or hot-water pipes. Arnott’s stove is recommended as an economical and eligible mode of heating, practised here to some extent with success for several years. On these stoves an iron pan, fitted to the top, should always be kept full of water. Roses may be forced slowly, but with perhaps greater certainty, by the uninitiated, by giving air freely and constantly in mild weather during the day, keeping the fire constantly burning during the same period, as recommended when keeping them closely shut up.”

We have copied the whole of this article, although in a measure a repetition of previous remarks, since it may be interesting to some to know the opinion of so eminent a cultivator, on this least understood branch of rose culture. A few of his directions are somewhat different from those we have given before, and may be far better than our own plan, in the climate of England. Here, an Arnott’s stove would scarcely heat a pit to 70° with the

thermometer at zero ; and if it should, we would think it rather dangerous to give so high a temperature at once. The strength of guano is also so varied, that we should feel very cautious in using it according to the above receipt. While, however, we would not venture to question the general utility of his directions, we may perhaps say, that we have found our own plan effective in its results, and productive of thrifty plants and beautiful flowers. We would advise cultivators to test them both, and adopt that which succeeds best in their hands. A pit of the above description can be constructed at a very low price, and should be found on the premises of every gentleman of even very moderate income, for the supply of their parlors during winter. If in addition to this, there were constructed, on the east side of the house and facing south, a little room with a glass front and roof, opening into the parlor and heated either by a valve from the house furnace or by a hollow-back connected with the parlor grate, more enjoyment would be afforded the lover of flowers than could be obtained by any other outlay of two hundred dollars. This room could then be kept constantly filled with roses from the pit, and through the most dreary winter, amid rain, snow, and storm, would present a bright array of the living reminders of spring and summer. It is a matter of much surprise, that, among all the beautiful country residences in the vicinity of our large cities, surrounded by all the appliances of luxury and comfort that taste and wealth can afford, so few instances are found in which the drawing-room or parlor opens into a green-house or conservatory. These buildings are frequently placed at a distance from the house, and although they may be filled with the most beautiful and rare exotics, are, during the greater part of the winter, inaccessible to the ladies of the family.

Let gentlemen of wealth, then, place their vineries anywhere, but use them as forcing-houses when the vines are in a dormant state. Let them also have a green-house or conservatory opening from the drawing-room, into which all the plants can be brought from the vinery whenever they show signs of bloom. This conservatory can be heated by hot water, flowing through

iron pipes from a boiler placed over the furnace that warms the drawing-room—taking from this no heat, and yet abundantly warming the conservatory. An improvement could still farther be made, by having the east end of the conservatory arch over a carriage drive, and thus allow visitors to enter the drawing-room through the conservatory. Exclusive of the delight afforded visitors by this very pleasant addition to a dwelling, it affords a delightful promenade for the ladies of the family, where, while all is wintry without, and walking is unpleasant, even when the ice-bound trees are glittering in the clear sunlight, they may luxuriate amid roses and jasmines, breathing air redolent with the perfume of daphne and orange flowers, and surrounded with everything that can remind them of the beauty and bland climate of the sunny south. It is much to be hoped, therefore, that the author of "Landscape Gardening," in his next edition of Rural Architecture, will make a conservatory of this character an essential part, a *sine qua non*, of every residence whose character and style are calculated for a man of wealth. This much we hope for the sake of the proper culture and due appreciation of our favorite flower, the Rose.

We have occupied so much space with the peculiarities of culture for the forcing-house, that we had almost forgotten that more humble, but no less pleasure-giving mode of Window culture. As this culture is practised chiefly by those who cannot spare the time nor incur the expense of previous preparation, the best mode is that given for late forcing of roses taken up the autumn previous, placing the plants in pots seven inches in diameter, and using a soil composed of equal parts of sand, loam and manure, or peat, loam and manure. They can be watered with manure-water every fortnight, made from the drippings of the barn-yard, or what is more pleasant, a safely weak solution of guano, about one pound to fifteen gallons.

They should be brought into the heat gradually—first into a cold room where there is no frost, and then into the sitting-room, where they can be placed in the window, and turned around every week in order to give each side of the plant its share of light.

They will soon begin to put forth their thrifty shoots, in some six weeks will present a fine show of beautiful flowers, and, if properly managed, will continue blooming through the winter. If attacked by the green-fly, the plant can be inverted in a strong decoction of tobacco, or it can be fumigated by being placed under an inverted barrel, with some burning tobacco. For window culture, the Everblooming Roses are the best, and they should be ordered of the nurseryman in suitable pots. This mode commends itself to all; it is within the reach of the daily laborer; the seamstress can have it in her window, and in the midst of her toilsome duties, be reminded by its bright flowers, of many a green spot in past days. It is especially suited to the means and leisure of the operatives in our factories, many of whom have left the country and all its green fields and pleasant flowers for the crowded city, where they can have no garden, but simply this little pot to remind them of past pleasures, and throw a gleam of sunshine over their hours of relief from labor. It can be placed in their chamber window, or in the windows of the factory, the high temperature of which, if it has been brought from the chamber, will soon bring out its foliage in great luxuriance and its flowers in beauty, and be a pleasant object of care in the moments snatched from the operations of the loom. To this class we would especially commend the Rose, as thriving under simple treatment, as possessing, more than any other flower, the elements of beauty, and tending like other flowers to keep alive, in a crowded city, that freshness and purity of feeling that distinguished their country life, and which, unless there exists an unusual perversion of the moral faculties, must always result from an intimate acquaintance with natural objects.

CHAPTER XIII.

PROPAGATION OF THE ROSE.

CUTTINGS.

HIS mode of propagation, although possible with all roses, is extremely difficult and rarely practised with those that bloom only once in the season. It is most applicable to the smooth-wooded kinds, as the Bengal and its sub-classes, and the *Boursault*, *Microphylla rubifolia*, &c. Many of the Perpetuals and Bourbons are propagated with facility by the same mode; but the best mode for these is generally by layers, budding and grafting. For propagation in the open ground, cuttings should be made in the early part of winter. They should be made of wood of the growth of the season, and about eight inches long. The lower end should be cut square close to the bud, and they can then be planted thickly two-thirds of their length in sand, in a light and dry cellar. Here a callus will be formed on the bottom of each cutting during the winter, and on being planted out in the spring, they will immediately throw out roots. They should be planted as early as possible in the spring, in a light sandy loam, with one-third of their length and at least one bud above the surface of the ground. They should be planted very early in the spring, because, if left until late, the power of the sun is too much for them. The earth should be trodden down very tight about them, in order, as much as possible, to exclude the air. If the weather is dry, they should be carefully watered in the evening.

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Where it is inconvenient to make the cuttings in the fall or early in the winter, they can be made in the spring ; but in consequence of having to form the callus, they will require a much lighter soil than will afterward be desirable for their growth, and they will also be much later in coming on. This mode of open propagation answers very well for some of the smooth-wooded roses of the more robust growing varieties, like the Boursault and Rubifolia, but for the delicate Bengals, the best mode is pot propagation. For this purpose we use small pots, filled with equal parts of mould and sand, or peat and sand. About the middle of autumn, cuttings of the same season's growth are taken off with two or three buds, cutting off the leaf from the lower end, and cutting off the wood smooth and square close to the eye. These cuttings can be inserted in the pot, leaving one eye above the surface. It should then be slightly watered to settle the soil firmly around the cuttings, and then placed in a cold frame, or on the floor of a vinery in which no fire is kept during winter. Early in the spring the pot should be plunged in saw-dust or tan over a moderate hot-bed, kept perfectly close, and sprinkled every morning with water a little tepid. Now, as well as during the autumn, they should be shaded from the too bright glare of the sun. In about a fortnight, and after they have formed a third set of leaves and good roots, a little air can be given them : and after being thus hardened for a week, they can be repotted into larger pots. In order to ascertain when they are sufficiently rooted, the ball of earth can be taken out of the pot, by striking its inverted edge lightly against some body ; at the same time sustaining the inside by the hand, the cutting being passed between two of the fingers a little separated. If well rooted, the fibres will be seen on the outside of the ball of earth. They can then be placed in a cold frame, or anywhere under glass, to be planted out the latter part of spring, or retained for pot culture. Where hot-bed frames are not convenient, or the amateur wishes only to experiment with one or two cuttings, he can use a tumbler, or any kind of close glass covering.

Bottom heat is quite an important aid in propagation by cut-

tings; and a material point is gained, both in time and certainty, if the base of the cutting can be kept at a higher temperature than the part above ground, but not so high as to injure the cutting by too rapid stimulation of its vegetative powers. Where roses are forced into bloom the latter part of winter, cuttings can be taken from them immediately after the bloom is past; and they will also succeed well, if taken from plants in the open ground immediately after their first bloom. Cuttings of the Everblooming Roses will all strike at any time during the summer, but they succeed much better either in the autumn or after their first bloom. The heat of our midsummer sun is so great, that cuttings often fail at that time. The wood of a cutting should be always perfectly mature, and, as a general rule, such maturity is never perfect until after the bloom is past. When a cutting is made near the old stem, it is better to take with it a portion of the old wood, which forms the enlarged part of the young branch. Where the cuttings are scarce, two buds will answer very well—one below the surface; and, in some cases, propagation has been successful with only one eye. In this case they are planted up to the base of the leaf, in pots of sand similar to that used in the manufacture of glass, and the eye is partially covered. They are then subject to the same treatment as the others, and carefully shaded; they will thus root easily, but require a long time to make strong plants.

Some years since, Lecoq, a French cultivator, conceived the idea of endeavoring to propagate roses by the leaf. He gathered some very young leaves of the Bengal rose, about one quarter developed, cutting them off at their insertion, or at the surface of the bark. He planted these in peat soil, in one inch pots, and then plunged the pots into a moderate heat. A double cover of bell glasses was then placed over them, to exclude the air entirely, which course of treatment was pursued until they had taken root. The shortest time in which this could be accomplished was eight weeks, and the roots were formed in the following manner. First a callus was formed at the base of the leaf, from which small fibres put forth; a small bud then appeared on the upper side;

a stalk then arose from this bud, which finally expanded into leaves and formed a perfect plant. (See Fig. 16.)

An English writer remarks, that "the leaves or leaflets of a rose will often take root more freely than even cuttings, and in a much shorter time, but these uniformly refuse to make buds or grow."

This experiment is certainly very curious, and evinces how great, in the vegetable kingdom, are the powers of nature for the re-production of existence, and is one of those singular results which should lead us to make farther experiments with various parts of plants, and teach us that even in Horticulture there is yet a wide field for scientific research.

BY LAYERS.

This mode is more particularly applicable to those roses that bloom only once in the year, and which do not strike freely from cuttings, although it can be equally well applied to all the smooth-wooded kinds. It can be performed at midsummer and for several weeks afterward, and should be employed only in those cases where young shoots have been formed at least a foot long and are well matured. The soil should be well dug around the plant, forming a little raised bed of some three feet in diameter, with the soil well pulverized and mixed with some manure well decomposed, and, if heavy, a little sand. A hole should then be made in this bed about four inches deep, and the young matured shoot bent down into it, keeping the top of the shoot some three or four inches above the surface of the ground; the angle thus being found, which should always be made at a bud and about five or six inches from the top of the shoot, the operator should cut off all the leaves below the ground. A sharp knife should then be placed just below a bud, about three inches below the surface of the ground, and a slanting cut made upward and lengthwise, about half through the branch, forming a sort of tongue from one to two inches long, on the back part of the shoot right opposite the bud; a chip or some of the soil can be placed in the slit to prevent it from closing, and the shoot can then be carefully laid

in the hole, and pegged down at a point some two inches below the cut, keeping, at the same time, the top of the shoot some three or four inches out of the ground, and making it fast to a small stake, to keep it upright. Care should be taken not to make the angle where the branch is pegged, at the cut, as the branch would be injured and perhaps broken off; the best place is about two inches below the incision. The soil can then be replaced in the hole, and where it is convenient covered with some moss or litter of any kind. This will protect the soil from the sun and keep it moist, and will materially aid the formation of new roots. These are formed in the same manner as in cuttings; first a callus is produced on those parts of the incision where the bark joins the wood, and from this callus spring the roots, which, in some cases, will have grown sufficiently to be taken from the parent plant the latter part of the following autumn; in some cases, however, the roots will not have sufficiently formed to allow them to be taken up before another year. The summer is the best period for laying the young shoots. Early in the spring, layers can be made with the wood formed the previous year. Where it is more convenient, a shoot can be rooted by making the incision as above, and introducing it into a quart pot with the bottom partly broken out. This pot can be plunged in the ground, or if the branch is from a standard, it can be raised on a rough platform. In either case, it should be covered with moss to protect it from the sun, and should be watered every evening. We recollect seeing in the glass manufactories of Paris, a very neat little glass tumbler, used by the French gardeners for this purpose. It held, perhaps, half a pint, and a space about half an inch wide was cut out through the whole length of the side, through which space the branch of any plant was inserted, and the tumbler then filled with soil. When the roots were formed and began to penetrate the soil, they could be easily perceived through the glass. Although an incision is always the most certain, and it is uniformly practised, roots will in many varieties strike easily from the buds; and a common operation in France is, simply to peg down the branches in the soil, without

any incision; in some cases, they give the branch a sudden twist, which will break or bruise the bark, and facilitate the formation of roots.

Some Chinese authors state that very long branches may be laid down, and that roots may thus be obtained from all the eyes upon them, which will eventually form as many plants.

Vibert, a well-known rose cultivator in France, remarks upon this point: "Upon laying down with the requisite care, some branches, fifteen to twenty-four inches long of the new growth, or of that of the previous year, and upon taking them up with similar care, after twelve or eighteen months, I found only the first eyes expanded into buds or roots, while the rest had perished. I have seldom seen the fifth eye developed, while I have frequently known the whole branch entirely perish. I speak in general terms, for there are some rare exceptions, and the different varieties of the Four-seasons Rose (*Rosa-bifera*) may be cited as proof, that a great number of eyes of the same branch have taken root."

This is the opinion of an eminent rose grower; but if, as he states, the Monthly Damask Rose will root freely in this way, many of the smooth-wooded roses would undoubtedly root still more freely, and our rapid growing native rose, Queen of the Prairies, would very probably throw out roots freely, when treated in this manner. It is worth repeated experiment; for, if rapid growing roses, like some of the evergreen varieties, the Greville, and the Queen of the Prairies, could with facility be made to grow in this way, rose hedges could be easily formed by laying down whole branches, and a very beautiful and effective protection would be thus produced, to ornament our fields and gardens.

SUCKERS.

Many roses throw up suckers readily from the root, and often form one of the principal causes of annoyance to the cultivator. For this reason, budding and grafting should always be done on stocks that do not incline to sucker. The Dog Rose—on which almost all the imported varieties are now worked—is particularly

liable to this objection, and it is no unusual thing to see half-a-dozen suckers growing about a single rose-tree. When the health and prosperity of the plant is desired, these should be carefully kept down, as they deprive the plant of a material portion of its nourishment. When, however, they are wanted for stocks, they should be taken off every spring with a small portion of root, which can generally be obtained by cutting some distance below the surface of the ground. They should be planted immediately when they are wanted for budding, and will soon be fit for use. Many fine varieties of the summer roses will sucker in this way, and an old plant when taken up, will sometimes furnish a large number of thrifty stems, each with a portion of root attached.

BUDDING.

Fifty years ago, budding and grafting were very little practised, excepting with new varieties, that could with great difficulty be propagated in any other way. Within that time, however, the practice has been constantly increasing until now, when it is extensively employed in Europe, and roses imported from France and England can very rarely be obtained on their own roots. To this mode of propagation, we know of but one objection, and that easily obviated by proper care, while the advantages in many varieties are sufficiently great to counterbalance any inconveniences attending the cultivation of a budded or grafted rose. It is generally the case, that the stock or plant on which the Rose is budded, is of some variety that will throw up suckers very freely, which growing with great luxuriance, will sometimes overpower the variety budded upon it, and present a mass of its own flowers. The purchaser will thus find a comparatively worthless bloom, instead of the rare and beautiful varieties whose appearance he has been eagerly awaiting, and upon the head of the nurseryman will frequently descend the weight of his indignation, for furnishing him with a worthless plant, instead of the new and beautiful variety for which he paid. This difficulty can, however, always be avoided by a very little attention. The shoot of the stock can very readily be distinguished from that of

the budded or grafted variety by its growth and foliage, even if the age of the plant will not allow the point of inoculation to be recognized. In passing the plant in his walks, let the owner simply cut away any shoot of this character that may spring from the stock or root, and the objection will at once be obviated. The budded variety thus receiving all the nourishment from the root, will soon grow with luxuriance, and present to the eager expectant as fine a bloom as he may desire—at the expense only of a little observation, and the trouble of occasionally taking his knife from his pocket. The advantages of budding and grafting are on the other hand very great. Nearly all roses will grow more luxuriantly on a good thrifty stock, than on their own roots, and many varieties which will scarcely grow an inch in a year on their own roots, will make strong and luxuriant shoots when budded. Of such are Lee's Crimson Perpetual and others. It may safely be assumed that on strong growing stocks like the Boursault and Madame d'Arblay, all roses will grow as well as on their own root, and many will grow much better. It is from their knowledge of this fact, that French cultivators have so universally adopted budding and grafting, even with those varieties that readily strike from cuttings. Such being the advantages of budding and grafting, the single objection stated above seems scarcely worthy of serious consideration. This practice has brought into cultivation a form of the plant which is highly ornamental, but which can never become very general in this country. The Tree Rose is an inoculation upon a standard some four or five feet in height, generally a Dog Rose or Eglantine. The tall, naked stem, a greater part of which is unsheltered by any foliage, is exposed to the full glare of our summer sun, and unless protected in some way, will often die out in two or three years. Its life can be prolonged by covering the stem with moss, or with a sort of tin tube, provided with small holes, to allow the air to enter and circulate around the stem. This is, however, some trouble: and as many will not provide this protection, a large part of the standard roses imported to this country will

gradually die out, and rose *bushes* be generally employed for single planting, or for grouping upon the lawn.

In budding, there are two requisites: a well-established and thriftily growing plant, and a well-matured eye or bud. The operation can be performed at any season when these requisites can be obtained. In the open ground, the wood from which the buds are cut, is generally not mature until after the first summer bloom.

Having ascertained by running a knife under the bark, that the stock will peel easily, and having some perfectly ripe young shoots with buds upon them, the operation can be performed with a sharp knife that is round and very thin at the point. Make in the bark of the stock a longitudinal incision of three-quarters of an inch, and another short one across the top as in fig. 13; run the knife under the bark and loosen it from the wood; then cut from one of the young shoots of the desired variety, a bud as in fig. 14; placing the knife a quarter to three-eighths of an inch above the eye or bud, and cutting out about the same distance below it, cutting sufficiently near the bud to take with it a very thin scale of the wood. English gardeners will always peel off this thin scale; but in our hot climate, it should always be left on, as it assists to keep the bud moist, and does not at all prevent the access of the sap from the stock to the bud. The bud being thus prepared, take it, by the portion of leaf-stalk attached, between the thumb and finger in the left hand, and, with the knife in the right, open the incision in the bark sufficiently to allow the bud to be slipped in as far as it will go, when the bark will close over and retain it. Then take a mat-string, or a piece of yarn, and firmly bind it around the bud, leaving only the petiole and bud exposed, as in fig. 12. The string should be allowed to remain for about two weeks, or until the bud is united to the stock. If allowed to remain longer, it will sometimes cut into the bark of the rapidly growing stock, but is productive of no other injury. It is the practice with many cultivators to cut off the top of the stock above the bud immediately after inoculation. A limited acquaintance with vegetable physiology would convince the cul-

tivator of the injurious results of this practice, and that the total excision of the branches of the stock while in full vegetation must be destructive to a large portion of the roots, and highly detrimental to the prosperity of the plant. A much better mode is to bend down the top, and tie its extremity to the lower part of the stock. Several days after this is done, the bud can be inserted just below the sharpest bend of the arch. When the buds are to be placed in the branches of a stock, as in fig. 15, the top of the main stem can be cut off, and the branches arched over and tied to the main stem, as at *f*; the bud is then inserted in each branch at *e*. The circulation of the sap being thus impeded by the bending of the branches, it is thrown into the inoculation, and forms then a more immediate union than it would if the branches were not arched. After the buds have become fairly united to the stock and have commenced growing, the top can be safely cut off to the bud, although it would be still better to make the pruning of the top proportionate to the growth of the bud; by this means, a slower, but more healthy vegetation is obtained. When the buds are inserted very late in the season, it is better not to cut off the top of the stock or branches until the following spring, and to preserve the bud dormant. If allowed to make a rapid growth so late in the season, there would be great danger of its being killed by frost. European cultivators are very fond of budding several varieties on one stock, in order to obtain the pretty effect produced by a contrast of color. This will only answer where great care is taken to select varieties of the same vegetating force; otherwise one will soon outstrip the other, and appropriate all the nourishment. It is also desirable that they should belong to the same species. When a bud is inserted in a plant in pot, as in fig 1, the main branches are left, and a portion of the top only cut off, in order to give the bud some additional nourishment.

GRAFTING.

From the pithy nature of the wood of the Rose, grafting is always less certain than budding; but is frequently adopted by

cultivators, as budding cannot be relied upon in the spring, and as there is much wood from the winter pruning which would be otherwise wasted. It is also useful for working over those plants in which buds have missed the previous summer.

There are several modes of grafting of which the most generally practised is *cleft grafting*. For this mode, the stock is cut off at the desired height with a sharp knife, horizontally, or slightly sloping, as in fig. 2. This should be done just above a bud which may serve to draw up the sap to the graft. The stock can then be split with a heavy knife, making the slit or cleft about an inch long. The scion should be about four inches long, with two or more buds upon it. An inch of the lower part of the scion can be cut in the shape of a wedge, making one side very thin, and on the thick or outer side, leaving a bud opposite to the top of the wedge. This scion can then be inserted in the cleft as far as the wedge is cut, being very careful to make the bark of the scion fit exactly to that of the stock. In order to exclude the air, the top and side of the stock should then be bound with a strip of cloth covered with a composition of beeswax and resin in equal parts, with sufficient tallow to make it soft at a reasonably low temperature. In the course of two or three weeks, if every thing is favorable, the scion will begin to unite, and will be ready to go forward with advancing vegetation. When the stock is sufficiently large, two scions can be inserted, as in fig. 2.

Whip grafting is performed by cutting a slice of bark with a little wood from the side of a stock about an inch and a-half long, and then paring a scion of the usual length down to a very thin, lower extremity. This scion can then be accurately fitted on to the place from which the slice of bark and wood is taken. The whole can then be bound around with cotton cloth, covered with the composition described before. In all grafting it should be borne in mind, that it is essential for the bark of the scion and that of the stock, to touch each other in some point, and the more the points of contact, the greater will be the chance of success.

Rind grafting is also sometimes practised, but is more uncertain than the former, as the swelling of the stock is very apt to force the scion out. This mode must be practised when the bark peels easily, or separates with ease from the wood. The top of the stock must be cut off square, and the bark cut through from the top about an inch downward. The point of the knife can then be inserted at the top, and the bark peeled back, as in fig. 9. It is desirable as before, that a bud should be left on the other side of the stock, opposite this opening; and the French prefer, also, to have a bud left on the outside of the part of the scion which is inserted. The scion should be cut out and sloped flat on one side, as in fig. 11; then inserted in the stock between the bark and wood, as in fig. 10, and bound with mat-strings, or strips of grafting cloth.

The French have another mode of grafting stocks about the size of a quill, or the little finger. It is done by placing the knife about two inches below a bud which is just on the point of starting, and cutting half way through the stock, and two inches down, as in fig. 3. The scion is then placed in the lower part of this cavity, in the same manner as with cleft grafting. This mode is called *Aspirant*, from the bud above the incision which continues to draw up the sap, until the development of the scion. When the scion has grown about two inches, the top of the stock is cut off and covered with grafting wax. This mode is not always successful, as the sap leaves the side of the stock which has been partly cut away and passes up the other side.

The French have also a mode of grafting, which they call *par incrustation*, and which is performed in the spring, as soon as the leaf-buds appear. A scion with a bud adhering to the wood is cut in a sort of oval shape, as in fig. 5, and inserted in a cavity made of the same shape, and just below an eye which has commenced growing, fig. 4. It is then bound around with matting, as in budding. This is a sort of spring budding, with rather more wood attached to the bud, than in summer budding. It is very successfully practised by various cultivators in the vicinity of Paris. There is still another mode sometimes practised in

France, which owes its origin to a cultivator named Lecoq. A small branch is chosen, which is provided with two buds, one of them being on the upper part, and the other near its larger end, fig. 7. A sidelong sloping cut is made all along its lower half, the upper being left entire. When the scion is thus prepared, its cut side is fitted to the side of the stock under the bark, fig. 6, which has been cut and peeled back, as in fig. 9. It is then bound around with mat-strings or grafting cloth in the usual way. This mode has a peculiar merit; should the upper bud not grow, the lower one rarely fails, and develops itself as in common budding.

Cleft and whip grafting is also practised occasionally upon the roots of the Rose, and succeeds very well with some varieties. These modes of grafting can all be more successfully practised on stocks in pots (fig. 8), in green-houses with bottom heat and bell glasses. We have given thus concisely, and we hope clearly, the various modes of budding and grafting with which we are acquainted. They may be sufficient to enable the amateur to amuse his leisure hours, whose success may not, however, entirely meet his expectations. Simple as these operations are, they require a kind of skill, and if we may so call it, sleight-of-hand, which is only attained by constant practice upon a great number of plants.

CHAPTER XIV.

MULTIPLICATION BY SEED AND HYBRIDIZING.

WE have described, in former pages, the various modes of cultivating the Rose, and of propagating the many beautiful varieties which exist, and would now briefly advert to a mode of developing still farther the beauty which lies hid within the horny covering that protects the dormant germ of vitality—in other words, of obtaining new varieties by seed. With the making of the seed-bed commenced a new era in the culture of the Rose, and advancing with rapid strides, it made more progress in forty years than in centuries before. The Dutch seem to have been the first to raise roses from seed, by the same mode which they applied successfully to their tulips, hyacinths, &c., and from the time that this mode became generally employed, the varieties of roses began to increase. In this species of cultivation the French soon outstripped their Dutch neighbors, and gained the reputation which they still retain, of pre-eminent skill in the production of new varieties of roses from the seed.

From 1805 to 1810, the Empress Josephine, whose love for flowers is well known, collected at her favorite residence, Malmaison, the choicest varieties of the Rose that could be obtained from Holland, Germany and Belgium, and thus gave an increased impulse to the culture of roses in the vicinity of Paris.

According to De Pronville, a French writer, there were, in

1814, only 182 varieties of roses, and the advantage of multiplication by seed is sufficiently evinced by the fact that there are now more than 4,500 varieties, the poorest of which are much better than any which existed at that day. Among the earliest cultivators of roses from the seed, were three Frenchmen: Dupont, Vilmorin and Descemet. The former was the gardener of the Empress Josephine. When the allies' armies entered Paris, in 1815, the garden of Descemet contained 10,000 seedling roses, which Vibert, in his anxiety to secure from destruction, succeeded in carrying to his garden in the interior.

In England, very little attention seems, at that time, to have been paid to the production of new varieties from seed, and they relied very much upon the continent for their choice roses. Now, however, they are abundantly redeeming their reputation, and many fine varieties have been produced by English rose-growers, at the head of whom stands Rivers, whose efforts are seconded by Wood, Glenny, Paul, Lane, and others. They are still, however, compelled to yield to the French cultivators, with Laffay and Vibert at their head; for to these we are indebted for our very finest roses—for Lamarque, Solfaterre, La Reine, Chromatella, the new white Perpetuals, and above all for that unsurpassed rose of roses, *Souvenir de Malmaison*.

The varieties of roses became increasingly great after the introduction of the Bengals, Noisettes, Teas, and Bourbons—all these classes producing readily from seed, and in endless variety. There still remains a willingness to cast aside the old for the new, and however much we may regret this disposition, for the sake of some old and truly deserving favorites, we cannot feel willing to denounce it, for it exhibits a gratifying evidence of a desire for improvement, and the existence of a spirit of progress, which, dissatisfied with things as they are, is continually striving after nearer approaches to perfection. If, in this strife, some of our old favorites have been cast aside, we are more than abundantly compensated for their loss by the new claimants to our regard.

Those who intend to raise new roses from seed, should select varieties differing as much as possible in color and habit, and

possessing broad, thick, and well-formed petals; their stamens should also be visible, and their pistil perfect; for perfectly double flowers, in which all the organs of propagation—the stamens and pistils—are changed into petals, never yield seed. These should be planted together in a rich soil, and as far as possible from any other roses. If there are among them any two varieties whose peculiarities it is desired to unite in a single plant, place these next to each other, and there may possibly be such an admixture of the pollen as will produce the desired result.

Care should be taken not to affect the proper maturity of the seed by taking off the petals, but allow them to fall by their own decay. The seed should be perfectly mature before it is gathered, which will be immediately after the first hard frost. After the hips have been gathered, the seeds can be taken out with the point of a knife, or, if there is a large quantity, they can be put on a table and bruised with a wooden roller; the covering of the seeds is so tough that they cannot easily be injured. When the hip is sufficiently bruised, it can be plunged into a vessel of water; and by continued friction, the seeds can be easily separated from the pulp which surrounds them, and will generally fall to the bottom. After being dried a few days in the shade, they should be placed just beneath the surface, in pots filled with fine sand, or peat earth, where they can be kept until wanted for planting in the spring. The seeds which are not thus placed in sand soon after they are gathered, will not grow until the second, and if delayed very long, until the third year. In this case, however, their germination can be hastened by sowing them in earthen pans, which are placed upon a hot-bed or under a glass frame. The seeds being thus planted immediately after being gathered, the sand should be kept moistened through the winter, and the pots kept out of the reach of frost. Mice are very fond of these seeds, and will destroy them unless they are covered with burrs, or protected by coarse wire netting. The pots should be kept out of all heat, excepting what may be required to keep the frost from them, until the first of the fourth month (April), in this latitude, and at the South, earlier; this is requisite, in order to

prevent their germinating before all danger of frost is past in the open air. At the time the pots or pans are brought from their sheltered place into a warm temperature, beds for the plants should be made in the open air, that they may be ready the moment they are required. For these an eastern aspect is the best, and in our hot climate, on the north side of a fence would answer very well; if they are in an open piece of ground, they should be sheltered by an awning from the hot sun. The soil should be a rich, light sandy mould, with a little peat, if convenient, and should be finely pulverized. The seeds should now be closely watched, and the moment they are seen pushing up the sand, in order to obtain light, they should be taken out singly with the point of a knife, taking a small portion of the sand with them. The bed having been previously watered, and raked fine, drills can be made, half an inch deep and about a foot apart, in which the germinating seeds can be placed, at a distance of six inches from each other, and then carefully covered with finely pulverized soil. Having commenced germinating in the pots, the seeds, now in the genial warmth of a spring sun, but protected from its fiercest rays, will soon show their heads above the ground, and striking deep root in the rich soil, grow rapidly. While the plants are small, care should be taken to keep the ground constantly moist.

We are aware that this process is somewhat new with rose seeds, although it has been long practised with *Rhododendrons* and other plants, but we are convinced of its superiority to the old mode. The delicate roots of young plants are very susceptible of injury by change, and many are frequently lost by the first potting; this risk is avoided by transplanting the seed before the first radical fibre is formed, and when, being in the act of germination, there can be no possible danger of its rotting, which is frequently a serious objection to sowing seeds at once in the open ground. The trouble and risk of loss occasioned by subsequent re-pottings, are also avoided, and the plants have, by this mode, full liberty to grow as luxuriantly as they choose, with only the slight attention required by watering and shading. As

the plan of Rivers is materially different, we will give his directions in detail, admitting, at the same time, that, under some circumstances, it may be preferable to that we have detailed above.

"The heps of all the varieties of roses, will, in general, be fully ripe by the beginning of November; they should then be gathered and kept entire, in a flower-pot filled with dry sand, carefully guarded from mice. In February, or by the first week in March, they must be broken to pieces with the fingers, and sown in flower-pots, such as are generally used for sowing seeds in, called 'seed pans;' but for rose seeds they should not be too shallow; nine inches in depth will be enough. These should be nearly, but not quite, filled with a rich compost of rotten manure and sandy loam, or peat; the seeds may be covered, to the depth of about half an inch, with the same compost; a piece of kiln wire must then be placed over the pot, fitting closely at the rim, so as to prevent the ingress of mice, which are passionately fond of rose-seeds; there must be space enough between the wire and the mould for the young plants to come up—half an inch will probably be found enough; the pots of seed must never be placed under glass, but kept constantly in the open air, in a full sunny exposure, as the wire will shade the mould and prevent its drying. Water should be given occasionally, in dry weather. The young plants will perhaps make their appearance in April or May, but very often the seed does not vegetate till the second spring. When they have made their 'rough leaves,' that is, when they have three or four leaves, exclusive of their seed-leaves, they must be carefully raised with the point of a narrow pruning-knife, potted into small pots, and placed in the shade; if the weather is very hot and dry, they may be covered with a hand-glass for a few days. They may remain in those pots a month, and then be planted out into a rich border; by the end of August those that are robust growers will have made shoots long enough for budding." Until the plants have become firmly rooted, and, in fact through the most of the first summer, they should be protected from the heat of the sun; a cheap mode of doing this is to put up rough posts, connect them by pieces of wood, lay rough slats across these,

and cover the whole with straw or corn-stalks, but a much neater covering is a good canvass awning, supported by posts, which can be taken down when not needed, and will last many years. The Bourbons and Bengals, with the Teas and Noisettes, will sometimes bloom the first season; but as the plant will be weak, a correct opinion cannot be formed of its character until the second summer. The summer roses, or those which bloom only once in the season, never show bloom until their third, and sometimes not until their fourth and fifth year. It is well to let all the plants remain in the seed-bed until the fifth year, as some which prove unpromising at first may result in something really good. All that prove bad the fifth year can be marked for destruction, or cut down to receive the buds of the good varieties. In order to obtain a good bloom as soon as possible, it is well to have ready some strong stocks of the Greville, Maheka, or any other free-growing rose, into which buds can be inserted of any of the seedlings whose habit and general appearance promise good flowers, and whose growth has been sufficient to furnish good buds. The next spring the stock should be cut down to the bud, which will then make luxuriant shoots, and produce flowers the same season, if an Everblooming variety; but if one of the summer roses, not till the next season. The third spring let every branch be cut down to three or four eyes, when it will more fully develop its character, and will often continue improving until its fifth or sixth year.

The first winter, the young plants will require protection from the cold by some kind of litter, and the Bengal, Tea, and Noisette varieties will always need it during the winter. Where there are any plants of these latter, whose habit and appearance promise something excellent, they can be potted on the approach of winter, kept in a cool temperature, free from frost, and replanted again in the spring.

When it is desired that the young plant should possess the properties of two well-known flowers, resort is had to artificial impregnation.

Although the existence of sexuality in plants appears to have

been known to the ancients, and is mentioned not only by Pliny, Claudian, and Theophrastus, but also by Ebu-Alwan, in a work on agriculture written originally in Chaldaic; yet it does not seem to have been generally admitted by botanists, until announced by Linnæus in 1731. From this time the possibility of the existence of hybrid plants was admitted, and Linnæus, with many subsequent authors, published observations tending to prove that, even in the natural state, new species were formed by two different plants, the pistil of one having been fecundated by the stamens of the other. This impregnation has been artificially applied, by modern cultivators, to the production of new varieties of fruits and flowers. With the *Geranium*, *Fuchsia*, *Pæony*, *Pansy*, and other flowers, it has produced remarkable results. The mode of impregnating the *Rose* artificially has been so little practised with us, and has been so well described by Rivers, that we prefer detailing the process in his own words:

“When it is desirable the qualities of a favorite rose should preponderate, the petals of the flower to be fertilized must be opened gently with the fingers. A flower that will expand in the morning, should be opened the afternoon or evening previous, and the anthers all removed with a pair of pointed scissors. The following morning, when this flower is fully expanded, it must be fertilized with a flower of some variety of whose qualities it is desired to have seedlings largely partake. It requires some watchfulness to open the petals at the proper time; if too soon, the petals will be injured in forcing them open; and in hot weather, in July, if delayed only an hour or two, the anthers will be found to have shed their pollen. To ascertain precisely when the pollen is in a fit state for transmission, a few of the anthers should be gently pressed with the finger and thumb; if the yellow dust adheres to them, the operation may be performed; it requires close examination and some practice to know when the flower to be operated upon is in a fit state to receive the pollen; as a general rule, the flowers ought to be in the same state of expansion, or, in other words, about the same age.

To exemplify the process, we will suppose that a climbing

Moss-Rose, with red or crimson flowers, is wished for: the flowers of the Blush Ayrshire, which bear seed abundantly, may be selected, and before expansion, the anthers removed; the following morning, or as soon after the operation as these flowers open, they should be fertilized with those of the Luxembourg Moss; if the operation succeed, seed will be procured, from which, the probability is, that a climbing rose will be produced with the habit and flowers of the Moss-Rose, or at least an approximation to them. I mention the union of the Moss and Ayrshire Rose by way of illustration, and merely to point out to the amateur how extensive and how interesting a field of operations is open in this way. I ought to give a fact that has occurred in my own experience, which will tell better with the sceptical than a thousand anticipations. About four years since, in a pan of seedling Moss-Roses, was one with a most peculiar habit, even when very young; this has since proved a hybrid rose, partaking much more of the Scotch Rose than of any other, and till the plant arrived at full growth, I thought it a Scotch Rose, the seed of which had by accident been mixed with that of the Moss-Rose, although I had taken extreme care. To my surprise it has since proved a perfect hybrid, having the sepals and the fruit of the Provence Rose, with the spiny and dwarf habit of the Scotch Rose; it bears abundance of hews, which are all abortive. The difference in the fruit of the Moss and Provence Rose, and those of the Scotch, is very remarkable; and this it was which drew my particular attention to the plant in question. It was raised from the same seed, and in the same seed-pan, as the single crimson Moss-Rose. As this strange hybrid came from a Moss-Rose accidentally fertilized, we may expect that art will do much more for us.

It is only in cases where it is wished for the qualities of a particular rose to predominate, that the removal of the anthers of the rose to be fertilized is necessary: thus, if a yellow climbing rose is desired by the union of the Yellow-Briar with the Ayrshire, every anther should be removed from the latter, so that it is fertilized solely with the pollen of the former. In some cases, where it is desirable to have the qualities of both parents

in an equal degree, the removal of the anthers must not take place: thus I have found, by removing them from the Luxembourg Moss, and fertilizing that rose with a dark variety of *Rosa Gallica*, that the features of the Moss-Rose are totally lost in its offspring, and they become nearly pure varieties of the former; but if the anthers of the Moss-Rose are left untouched, and it is fertilized with *Rosa Gallica*, interesting hybrids are the result, more or less mossy. This seems to make super-fœtation very probable; yet Dr. Lindley, in his *Theory of Horticulture*, thinks it is not very likely to occur."

There is no branch of rose culture possessing more interest for the amateur, with whose leisure its prosecution is compatible. The constant care and attention required, in order to ensure success, place it in a great measure beyond the limits of a large commercial establishment. The great desideratum at this time is a double, yellow, climbing rose. If the Harrison Rose were fertilized with the Queen of the Prairies, or the latter with the Solfa-terre or Chromatella, a rose might possibly be obtained with the rich yellow of the Harrison Rose, and the robust habit and beautifully-formed flower of the Queen of the Prairies. While, however, we recommend this mode of artificial impregnation, we would by no means discourage the sowing of seeds whose flowers have not thus been fecundated. The seed of the Harrison Rose, or of any of the yellow roses, may, if perseveringly saved from generation to generation, produce a yellow climbing rose. In fact, we are inclined to think that among all the reputed hybrids, a much less number than is supposed owe their origin to a crossed fecundation. It is a fact generally admitted by botanists, that all varieties of plants will generally produce from their seed plants entirely dissimilar, preserving perhaps some peculiarities of their parents, but differing in many essential particulars. This is well known to cultivators in the instances of the Pansy, the Fuchsia, the Verbena, and other plants; and that it is also the case with the Rose, is evinced by an experiment of the French cultivator, Guerin. He gathered a seed vessel from a rose bush, the flower of which had only partially developed itself, and the

pistil of which, being covered by the petals, could not have been fecundated by its own stamens. This seed when sown produced five different varieties. It will thus be perceived that, in the simple sowing of seeds, where there is a dislike to the trouble of artificial impregnation, there is a wide field for experiment and for successful result. But to those who have the leisure and the patience to transfer from one plant to another its fertilizing matter, it forms a pleasant amusement, with rather a greater probability of satisfactory results. In either case, every amateur of roses should have his seed-plat; and if, out of a thousand, or even five thousand roses, he should obtain one good variety, and differing from any other known, he will be conferring an important service upon rose-culture, and will encourage others to pursue the same course until we shall be in no wise behind either France or England in this interesting branch of horticulture.

CHAPTER XV.

DISEASES OF THE ROSE.

Brave Rose, alas, whose art thou? In thy chair
Where thou didst lately so triumph and shine,
A worm doth sit, whose many feet and hair
Are the more foul the more thou art divine.
This, this hath done it; this did bite the root
And bottom of the leaves, which, when the wind
Did once perceive, it blew them under foot,
Where rude, unhallow'd steps do crush and grind
Their beauteous glories. Only shreds of thee.
And those all bitten, in thy chair I see.

HERBERT.

THE diseases to which the Rose is liable are generally owing either to the presence of various Cryptogamæ, or to the attacks of certain insects whose larvæ are supported at the expense of the plant. The Cryptogamæ which have been observed upon rose-bushes, and which infest chiefly the Provins and other rough-leaved roses, are the following :

SPOROTRICUM PULCHELLUM.—*Duby*. Greenish filaments under the leaves, and scarcely visible.

OIDIUM LEUCONIUM.—*Descemet*. Whitish filaments growing on the leaves and diseased trunks.

UREDOPINGUIS.—*Decandolle*. Small orange-colored, linear plates growing upon the fibres of the petioles of the leaves, and upon the diseased hips or fruit.

UREDOROSE.—*Persoon*. Numerous small groups of a pale-yellow color, and found upon the leaves.

These two last are the most common and injurious to roses, as they frequently cover all the leaves. The most effectual mode of preventing their spreading is, to cut off with care and burn all the infected branches, which will sometimes render necessary the destruction of the whole plant.

PHRAGMIDIUM INCRASSATUM. — *Linkius*. (*Puccinia Rosæ*.) Small, black groups under diseased leaves, and very common.

XYLOMA ROSÆ. — *Decandolle*. Pustules of a blackish gray, and growing on the bark of the plant.

ERYSIPHE PANNOSA. — *Linkius*. Numerous white filaments, growing on the young shoots, leaves, and branches. It is commonly known to gardeners as the *mildew*, and is very destructive to the health and growth of the plant. It is a very troublesome enemy to the Rose, and will sometimes put at defiance every application for its destruction. The most effectual is smoking with sulphur, rubbing with dry flour of sulphur, or syringing with sulphur water. The former should only be practised by a skilful hand, as too much sulphur-smoke will sometimes entirely kill the plant.

CYTISPORA LEUCOSPERMA. — *Fries*. Small, round, white points, growing upon diseased branches.

HYSTERIUM FOLIICOLUM. — *Fries*. Small, black, oval points, with a furrow in the middle; found on both sides of diseased leaves.

SPHÆRIA CLYPEATA. — *Nées*. Black, shining tubercles; found under the epidermis of diseased plants.

SPHÆRIA SEPINCOLA. — *Fries*. Dull-black tubercles; found under the epidermis of diseased leaves.

PHYSICIA CILIARIS. — *Decandolle*. PARMELIA CANDELARIS. — *Fries*. Marks on the wood of old decaying rose-bushes.

The *insects* which infest the Rose are quite numerous, and their attacks are more or less injurious. Those which are found on the plant in the state of perfect insects are comparatively harmless. The most injurious are those whose larvæ feed on the leaves and pith of the trunk and limbs, and thus destroy the plant; while the perfect insect, like the green fly, will simply stop the growth and impair the health of the tree, by fastening upon the green and tender bark of the young shoots, and devouring the sap. The history of most of these is very little known. The classification and knowledge of their characteristics are well understood branches of Entomology, but there is a want of

careful observation of their habits and modes of life, especially while in their larva state. It is highly desirable that amateur cultivators should devote more time to the study of Entomology, for upon an intimate acquaintance with the habits of these minute depredators depends, in a greater degree than is generally supposed, the success of cultivation. Our own leisure is so limited, that we have been able to devote very little time to this subject; and we can find no work that treats in detail the insects that attack the Rose. With this paucity of material, we simply give a list of the principal, in the hope that some one will improve upon it. Our authorities are mostly European, and some of the varieties we name may not exist in this country.

1. SCARABÆUS AURATUS of *Linnaeus*, or CETONIA AURATA of modern authors, sometimes called the golden fly. This insect causes a cessation of growth in the plant, and may be easily destroyed by tobacco smoke.
2. MELOLONTHA VULGARIS.—*Fabricius*. Common May-bug. It is sometimes found upon the leaves of the rose-bush, but quite as frequently upon those of many other plants.
3. CHRYSOMELA BIPUNCTATA.—*Linnaeus*. It is found on the rose-bush occasionally, and does it no injury.
4. BUPRESTIS MANCA.—*Linnaeus*. This, like the preceding, is a Coleoptera, and is only found occasionally on the Rose.
5. CICADA SPUMARIA.—*Linnaeus*. This insect is found on various plants, and not exclusively on the Rose.
6. CICADA ROSÆ, or JASSUS ROSÆ.—*Fabricius*. This insect, commonly known as the rose-grasshopper, lives upon the Rose during its three states, and injures it by draining the plant of its sap.
7. APHIS ROSÆ.—*Linnaeus*. GREEN FLY. This insect is a scourge to roses, from the facility of its reproduction, and its numerous progeny sometimes entirely cover the leaves, the young sprouts, and the flower-buds. Devouring the sap, they are very injurious, and, when numerous, sometimes destroy the plant, while they soil every part on which they collect. The most common species is of a pale green, but there is a variety of a dingy yellow. In Europe they are commonly called *vine-chafers*. Their principal destroyers are small birds, but they have other enemies, as many small *hymenopteres* of the genus *Chalcis* and *Cynips*, and espe-

cially the larvæ of the *Coccinelles* and *Hémérobès*. Those of the *Hémérobis Persa* of Linnæus have thus received, from Reaumur and Geoffroy, the name of "*Lions of the Vine-chafers*." They destroy great numbers of these insects every day, by sucking their substance, and then fasten the skins upon their own backs, for the purpose of concealing themselves by this pile from the eyes of those who are yet to become their victims. The first eggs of these insects are deposited in the autumn, at the base of the buds, and are hatched in the early part of the following spring. Generation after generation are then rapidly produced, numbering sometimes eight or ten before autumn. Reaumur estimated that a single Aphis might produce six thousand millions in one summer. The first hatching can be prevented by washing the plant with soft soap and water, or with whale-oil soap, before the buds commence swelling. When the plant is infested with them, it can be washed with tobacco-water and then rinsed in clean water. If in a house, fumigation with tobacco is better. An English writer recommends washing in a decoction of an ounce of quassia and a quart of water, as a very effective and safe remedy. Fumigation is, however, the most thoroughly searching remedy, and can be easily applied to plants in the open air, by means of an empty barrel inverted over the plant and a pan of burning tobacco.

8. PHALÆNA PAVONIA.—*Linnaeus*. The huge caterpillar of this large butterfly may occasionally be found on the leaves of rose-bushes, but lives mostly on those of apple, peach, and other trees. The same remark will apply to
9. PHALÆNA LIBATRIX.—*Linnaeus*.
10. PHALÆNA FIMBRIA.—*Linnaeus*.
11. PHALÆNA BETULARIA.—*Linnaeus*.
12. PHALÆNA ROSARIA.—*Linnaeus*. Its caterpillar eats and rolls up the leaves of the Rose, as do also those of the
13. PHALÆNA FORSKALÆNA.—*Linnaeus*. And the
14. PHALÆNA CYNOSBATTELLA.—*Linnaeus*.
15. CYNIPS ROSE.—*Linnaeus*. The Cynips of the Bedeguar. The female makes a hole in the epidermis of the branches of the rose-bush, with a sort of auger placed at the extremity of the oviduct, for the purpose of laying her eggs under the bark. This puncture produces the fibrous and mossy excrescence found on plants of the Rose, and particularly on the Dog Rose and the Sweet Briar. Within this excrescence are found the larvæ, many of them gathered in one mass. They dig their small, round cells, and thus

pass the winter in a chrysalis state. The bedeguars were formerly employed in medicine as astringents. The male *cynips* is distinguished by the absence of a tail.

16. *CYNIPS BICOLOR*.—"Round, prickly galls, of a reddish color, and rather larger than a pea, may often be seen on rose-bushes. Each of them contains a single grub, and this in due time turns to a gall-fly. Its head and thorax are black, and rough with numerous little pits; its hind-body is polished, and, with the legs, of a brownish red color. It is a large insect compared with the size of its gall, measuring nearly one-fifth of an inch in length, while the diameter of its gall, not including the prickles, rarely exceeds three-tenths of an inch.
17. "*CYNIPS DICHLOCERUS*, or the gall-fly with two-colored antennæ, is of a brownish red or cinnamon color, with four little longitudinal grooves on the top of the thorax, the lower part of the antennæ red, and the remainder black. It varies in being darker sometimes, and measures from one-eighth to three-sixteenths of an inch in length. Great numbers of these gall-flies are bred in the irregular woody galls, or long excrescences, of the stems of rose-bushes.
18. *CYNIPS SEMIPICEUS*.—"The small roots of rose-bushes, and of other plants of the same family, sometimes produce rounded, warty, and woody knobs, inhabited by numerous gall-insects, which, in coming out, pierce them with small holes on all sides. The winged insects closely resemble the dark varieties of the preceding species in color, and in the little furrows on the thorax; but their legs are rather paler, and they do not measure more than one-tenth of an inch in length.
19. *SELANDRIA ROSÆ*.—"The saw-fly of the rose, which, as it does not seem to have been described before, may be called *Selandria Rosæ*, from its favorite plant, so nearly resembles the slug-worm saw-fly as not to be distinguished therefrom except by a practised observer. It is also very much like *Selandria barda*, *Vitis*, and *pygmaea*, but has not the red thorax of these three closely allied species. It is of a deep and shining black color. The first two pairs of legs are brownish gray or dirty white, except the thighs which are almost entirely black. The hind-legs are black, with whitish knees. The wings are smoky, and transparent, with dark brown veins, and a brown spot near the middle of the edge of the first pair. The body of the male is a little more than three-twentieths of an inch long, that of the female

one-fifth of an inch or more, and the wings expand nearly or quite two-fifths of an inch. These saw-flies come out of the ground, at various times, between the twentieth of May and the middle of June, during which period they pair and lay their eggs. The females do not fly much, and may be seen, during most of the day, resting on the leaves; and, when touched, they draw up their legs, and fall to the ground. The males are more active, fly from one rose-bush to another, and hover around their sluggish partners. The latter, when about to lay their eggs, turn a little on one side, unsheathe their saws, and thrust them obliquely into the skin of the leaf, depositing in each incision thus made, a single egg. The young begin to hatch in ten days or a fortnight after the eggs are laid. They may sometimes be found on the leaves as early as the first of June, but do not usually appear in considerable numbers till the twentieth of the same month. How long they are in coming to maturity, I have not particularly observed; but the period of their existence in the caterpillar state probably does not exceed three weeks. They somewhat resemble the young of the saw-fly in form, but are not quite so convex. They have a small, round, yellowish head, with a black dot on each side of it, and are provided with twenty-two short legs. The body is green above, paler at the sides, and yellowish beneath; and it is soft, and almost transparent like jelly. The skin of the back is transversely wrinkled, and covered with minute elevated points; and there are two small, triple-pointed warts on the edge of the first ring, immediately behind the head. These gelatinous and sluggish creatures eat the upper surface of the leaf in large irregular patches, leaving the veins and the skin beneath untouched; and they are sometimes so thick that not a leaf on the bushes is spared by them, and the whole foliage looks as if it had been scorched by fire, and drops off soon afterward. They cast their skins several times, leaving them extended and fastened on the leaves; after the last moulting they lose their semi-transparent and greenish color, and acquire an opaque yellowish hue. They then leave the rose-bushes, some of them slowly creeping down the stem, and others rolling up and dropping off, especially when the bushes are shaken by the wind. Having reached the ground, they burrow to the depth of an inch or more in the earth, where each one makes for itself a small oval cell, of grains of earth, cemented with a little gummy silk. Having finished their transformations, and turned to flies, within

their cells, they come out of the ground early in August, and lay their eggs for a second brood of young. These, in turn, perform their appointed work of destruction in the autumn; they then go into the ground, make their earthen cells, remain therein throughout the winter, and appear in the winged form, in the following spring and summer.

"During several years past, these pernicious vermin have infested the rose-bushes in the vicinity of Boston, and have proved so injurious to them, as to have excited the attention of the Massachusetts Horticultural Society, by whom a premium of one hundred dollars, for the most successful mode of destroying these insects, was offered in the summer of 1840. About ten years ago, I observed them in gardens in Cambridge, and then made myself acquainted with their transformations. At that time they had not reached Milton, my former place of residence, and have appeared in that place only within two or three years. They now seem to be gradually extending in all directions, and an effectual method for preserving our roses from their attacks has become very desirable to all persons who set any value on this beautiful ornament of our gardens and shrubberies. Showering or syringing the bushes with a liquor, made by mixing with water the juice expressed from tobacco by tobacconists, has been recommended; but some caution is necessary in making this mixture of a proper strength, for if too strong it is injurious to plants; and the experiment does not seem, as yet, to have been conducted with sufficient care to insure safety and success. Dusting lime over the plants when wet with dew has been tried and found of some use; but this and all other remedies will probably yield in efficacy to Mr. Haggerston's mixture of whale-oil soap and water. In the proportion of two pounds of the soap to fifteen gallons of water. Particular directions, drawn up by Mr. Haggerston himself, for the preparation and use of this simple and cheap application, may be found in the "Boston Courier," for the twenty-fifth of June, 1841, and also in most of our agricultural and horticultural journals of the same time. The utility of this mixture has already been repeatedly mentioned in this treatise, and it may be applied in other cases with advantage. Mr. Haggerston finds that it effectually destroys many kinds of insects; and he particularly mentions plant-lice of various kinds, red spiders, canker-worms, and a little jumping insect which has lately been found quite as hurtful to rose-bushes as the slugs or young of the

saw-fly. The little insect alluded to has been mistaken for a species of Thrips or vine-fretter; it is, however, a leaf-hopper, or species of *Tettigonia*, much smaller than the leaf-hopper of the grape-vine (*Tettigonia Vitis*), and, like the leaf-hopper of the bean, entirely of a pale-green color."—*Harris*.

20. TENTHREDO PAVIDA.—*Linnaeus*. The larvæ of both these last are very injurious to rose plants.
21. TENTHREDO USTULATA.—*Linnaeus*. The real tenthredo; and has not been ascertained to be injurious to roses.
22. TENTHREDO CINCTA.—*Linnaeus*. The larvæ of this insect are found upon the leaves of rose-bushes in autumn, and the perfect insect bores holes in the stem.
23. TENTHREDO CYNOSBATI.—*Linnaeus*.
24. TENTHREDO ANNULATA.—*Linnaeus*. The larvæ of both of these are found on the leaves of the Rose.
25. TENTHREDO of Mérat, see page 000.

Of all the insect enemies of the Rose, the Tenthredo tribe is the most injurious. After they reach the larvæ state they bury themselves in the ground to undergo their metamorphosis, from which the perfect insect does not emerge till the following year.

The Bedeguar ichneumon of some authors is the same as No. 15. The *Diplolépe* bedeguar of Geoffroy, is also a synonyme of the same.

26. APIS MELLIFICA.—*Linnaeus*. The honey-bee. This species, like many others of its family, is frequently found upon every kind of rose, either drawing out with its proboscis the honeyed treasures secreted in the nectarium, or gathering with its feet from the stamens the pollen for its wax.
27. MUSCA PELLUCEUS.—*Linnaeus*. This fly, according to Geoffroy, also lives upon rose-bushes.
28. MUSCA NIGRA.—*Linnaeus*. Similar to the preceding.
29. ACARUS CROCEUS.—*Linnaeus*. According to *Linnaeus*, this insect lives on the *Rosa Monstrosa*, sucking the sap from its stems.
30. COCCUS ROSÆ.—*Mérat*. A species of caterpillar, infesting the bark of roses. It has a white shell, very thin, irregular, and gathered in such a manner as to cover the part it attacks, which is generally near the point of the stem. Mérat has not yet sufficiently distinguished the habits of this insect to describe it with precision, but thinks it would destroy the plant upon which it happened to be in very great numbers. Its destruction is easy, by merely scraping the scales with the back of a pruning-knife.

This should not be confounded with the cryptogamic miller, or mildew, which it somewhat resembles in appearance.

31. *TINEA (ORNIX) RHODOPHAGELLA*.—*Kollar*. The Rose-Moth. "In early Spring, as soon as the rose-bush begins to bud, a very dangerous enemy to the growth of its leaves and blossoms arrives. It is the more to be dreaded as, from its smallness and peculiarity of form, it is easily overlooked by the gardener or amateur. If the new leafshoots are closely examined, a little brownish scale is found here and there attached to them; and upon nearer inspection, we shall be convinced that it is a little case, in which a worm, the larvæ of a small moth, is concealed, which gnaws the tender shoots. When it has devoured one shoot, it removes with its house, and attacks another; and thus, in a short time, one of these larvæ can strip a whole branch of its shoots. The larva which lives in the little case, is only a few lines long; yellow, with a black head, and black spotted collar. It undergoes pupation in its case, which enlarges from time to time, as necessity requires. The moth appears at the end of May. It is only three lines long, carries its wings very close to its body, almost wrapped around it. The whole body is silvery shining gray; the upper wings strewed with minute black dots, deeply fringed at the posterior edge; the under wings are narrow, pointed, with very long fringes. The moth lays her eggs in May on the buds of the rose-trees, and the caterpillars are hatched at the end of June; they immediately form for themselves small cases of parts of the leaves, and pass the winter in them at the root of the rose-tree.

"The only certain way of preserving rose-trees from this enemy, is to look for these small cases in early spring, before any foliage is developed, when an experienced eye, which has been accustomed to observe insects, will easily discover them. They must, however, be crushed immediately, and not thrown on the ground, as, if they are, they will re-ascend the rose-bush."—*Kollar*.

32. *MELOLONTA SUBSPINOSA* of *Fabricius*, and *MACRODACTYLUS SUPSPINOSA* of *Latreille*. Common Rose-bug. Common as this insect is in the vicinity of Boston, it is or was a few years ago, unknown in the northern and western parts of Massachusetts, in New Hampshire, and in Maine. It may, therefore, be well to give a brief description of it. This beetle measures seven-twentieths of an inch in length. Its body is slender, tapers before and behind, and is entirely covered with very short and close ashen-yellow down; the thorax is long and narrow, angularly widened

in the middle of each side, which suggested the name *subspinosa* or somewhat spined; the legs are slender, and of a pale-red color; the joints of the feet are tipped with black, and are very long, which caused Latreille to call the genus *Macrodactylus*, that is long toe, or long foot. The natural history of the rose-chaffer, one of the greatest scourges with which our gardens and nurseries have been afflicted, was for a long time involved in mystery, but is at last fully cleared up. The prevalence of this insect on the rose, and its annual appearance coinciding with the blossoming of that flower, have gained for it the popular name by which it is here known. For some time after they were first noticed, rose-bugs appeared to be confined to their favorite, the blossoms of the rose; but within thirty years they have prodigiously increased in number, have attacked at random various kinds of plants in swarms, and have become notorious for their extensive and deploable ravages. The grape-vine in particular, the cherry, plum, and apple trees, have annually suffered by their depredations; many other fruit-trees and shrubs, garden vegetables and corn, and even the trees of the forest and the grass of the fields, have been laid under contribution by these indiscriminate feeders, by whom leaves, flowers, and fruits are alike consumed. The unexpected arrival of these insects in swarms, at their first coming, and their sudden disappearance, at the close of their career, are remarkable facts in their history. They come forth from the ground during the second week in June, or about the time of the blossoming of the damask rose, and remain from thirty to forty days. At the end of this period the males become exhausted, fall to the ground, and perish, while the females enter the earth, lay their eggs, return to the surface, and, after lingering a few days, die also. The eggs laid by each female are about thirty in number, and are deposited from one to four inches beneath the surface of the soil; they are nearly globular, whitish, and about one-thirtieth of an inch in diameter, and are hatched twenty days after they are laid. The young larvæ begin to feed on such tender roots as are within their reach. Like other grubs of the Scarabæians, when not eating, they lie upon the side, with the body curved so that the head and tail are nearly in contact; they move with difficulty on a level surface, and are continually falling over on one side or the other. They attain their full size in autumn, being then nearly three quarters of an inch long, and about an eighth of an inch in diameter. They are of a yellowish white color, with a tinge of blue towards the hinder extremity, which is thick and obtuse or rounded; a few short hairs are scattered on the surface of the body; there are six short legs, namely a pair to each

of the first three rings behind the head; and the latter is covered with a horny shell of a pale rust color. In October they descend below the reach of frost, and pass the winter in a torpid state. In the spring they approach toward the surface, and each one forms for itself a little cell of an oval shape, by turning round a great many times, so as to compress the earth and render the inside of the cavity hard and smooth. Within this cell the grub is transformed to a pupa, during the month of May, by casting off its skin, which is pushed downward in folds from the head to the tail. The pupa has somewhat the form of the perfected beetle; but it is of a yellowish white color, and its short stump-like wings, its antennæ, and its legs are folded upon the breast, and its whole body is inclosed in a thin film, that wraps each part separately. During the month of June this filmy skin is rent, the included beetle withdraws from its body and its limbs, bursts open its earthen cell, and digs its way to the surface of the ground. Thus the various changes, from the egg to the full development of the perfected beetle, are completed within the space of one year.

"Such being the metamorphoses and habits of these insects, it is evident that we cannot attack them in the egg, the grub, or the pupa state; the enemy, in these stages, is beyond our reach, and is subject to the control only of the natural but unknown means appointed by the Author of Nature to keep the insect tribes in check. When they have issued from their subterranean retreats, and have congregated upon our vines, trees, and other vegetable productions, in the complete enjoyment of their propensities, we must unite our efforts to seize and crush the invaders. They must indeed be crushed, scalded, or burned, to deprive them of life, for they are not affected by any of the applications usually found destructive to other insects. Experience has proved the utility of gathering them by hand, or of shaking them or brushing them from the plants into tin vessels containing a little water. They should be collected daily during the period of their visitation, and should be committed to the flames, or killed by scalding water. The late John Lowell, Esq., states, that in 1823, he discovered on a solitary apple-tree, the rose-bugs 'in vast numbers, such as could not be described, and would not be believed if they were described, or at least none but an ocular witness could conceive of their numbers. Destruction by hand was out of the question' in this case. He put sheets under the tree, and shook them down, and burned them. Dr. Green, of Mansfield, whose investigations have thrown much light on the history of this insect, proposes protecting plants with millinet, and says that in this way only did he succeed in securing his grape-vines from

depredation. His remarks also show the utility of gathering them. 'Eighty-six of these spoilers,' says he, 'were known to infest a single rose-bud, and were crushed with one grasp of the hand.' Suppose, as was probably the case, that one-half of them were females; by this destruction, eight hundred eggs, at least, were prevented from becoming matured. During the time of their prevalence, rose-bugs are sometimes found in immense numbers on the flowers of the common white-weed, or ox-eye daisy, (*Chrysanthemum leucanthemum*,) a worthless plant, which has come to us from Europe, and has been suffered to overrun our pastures, and encroach on our mowing lands. In certain cases it may become expedient rapidly to mow down the infested white-weed in dry pastures, and consume it with the sluggish rose-bugs on the spot.

"Our insect-eating birds undoubtedly devour many of these insects, and deserve to be cherished and protected for their services. Rose-bugs are also eaten greedily by domesticated fowls; and when they become exhausted and fall to the ground, or when they are about to lay their eggs, they are destroyed by moles, insects, and other animals, which lie in wait to seize them. Dr. Green informs us, that a species of dragon-fly, or devil's needle devours them. He also says that an insect which he calls the enemy of the cut-worm, probably the larva of a *Carabus* or predaceous ground-beetle, preys on the grubs of the common dor-bug. In France the golden ground-beetle (*Carabus auratus*) devours the female dor or chafer at the moment when she is about to deposit her eggs. I have taken one specimen of this fine ground-beetle in Massachusetts, and we have several other kinds, equally predaceous, which probably contribute to check the increase of our native Melolonthians."—*Harris*.

A. J. Downing recommends the use of open-mouthed bottles, half filled (and occasionally renewed) with a mixture of sweetened water and vinegar, and placed about the plant. He also recommends pouring boiling water on the ground under the bushes, at the first appearance of the insects and before their wings are formed. They nearly all rise to the surface of the ground, and emerge about the same time, when the Damask Rose first begins to open. A little observation will enable the cultivator to seize the right time for the scalding operation. Illustrating this difficulty of destroying the rose-bug, a correspondent of the Horticulturist tells the following story of one of his neighbors:

"One of my very good neighbors, and one of the best-informed men of my acquaintance, this summer undertook to 'fight the rose-bugs,' a hopeless task you'll say, but nevertheless rendered important by their extraordinary ravages; they

have been more numerous in the vicinity of Philadelphia this year than we have ever known them. But my philosophical neighbor was for once foiled. His operations were in this wise: His man Pompey and himself rose early to enjoy a savage pleasure in conquering their hitherto invincible enemy. Pomp rolled up his sleeves for slaughter, while my friend pulled on a pair of gloves. To it they both went, and in an hour or two, or ere the tuneful breakfast bell had called neighbor W. to his matutinal repast, a bucket full of these *coleoptera* had been bagged. 'Now,' says Pomp, 'massa, 'spose I scald 'em.' 'Oh no,' says Philosophy; 'I'll teach them to trespass on my manor, the varmint!' So he went to his laboratory and brought out some ounces of chloride of lime, which, dissolved, was poured over the active mass; they were then buried, and Pomp spanked his spade over the *grave*, as a thing done. Philosophy slept well that night, and in the morning was horrified to find all his enemies airing their wings in the sun, having had a resurrection, which astonished my friend, but did not Pomp, who still thinks scalding water would have been better."

33. BISTON BETULARIUS. *Pepper Moth*. "This moth is double-brooded, the first appearing in June, and the second in September. The eggs of the June brood are hatched in July, and continue feeding until the last week of August, when they go into the pupæ state, burying themselves in the ground, and the perfect moths appear about the beginning of September. The eggs of the autumn brood are laid on the stems of the rose-trees, and there remain until the following spring, and are hatched about the time of the expansion of the leaves. By the middle of May they are an inch long, and shortly afterward go into the pupæ state, the moth appearing about the beginning or toward the middle of June. The caterpillars are grayish-brown, with a faint-red line down the centre of the back. In some seasons they are numerous; but as they feed only on the rose-leaves in the season of luxuriant growth, the injury occasioned by them is trifling. The perfect moth measures, when the wings are expanded, an inch and a half: all the wings are dirty-white, clouded with pale-ash, and thickly spotted over the whole insect with black, whence the name 'Pepper Moth.'"—*Paxton*.
34. HARPALYCE FULVATA. *Barred Yellow Moth*. "This beautiful little moth appears in June, and may be caught in abundance by beating the rose-bushes. The caterpillar is greenish-yellow, with a white mark bordered by a darker one on each side. It feeds voraciously on the leaves of the rose-tree, but does not appear to attack the buds. The parent lays her eggs in July, and the caterpillars, which are feeding during August in considerable quantities, will be full fed early in September, and will then enter into the pupæ state, burying themselves in the ground and

forming brown cocoons. The perfect moths appear the following June. The wings measure, when expanded, about an inch across. *First pair*, tawny yellow, with a deep, broad band across the centre; *second pair*, pale, dull yellow, with darker margins."—*Paxton*.

35. ARGYA ANTIQUA. *Common Vaporier Moth*. "This moth does no injury to the rose-trees, although the caterpillars are found upon them in great numbers."—*Paxton*.

A most destructive enemy of the Rose is a small insect of the genus *Tenthredo*, respecting which very little is known. Dr. Mérat, a French writer, describes it in detail, which description we translate from his pamphlet, in the hope that it may be of some assistance to those who are inclined to investigate the habits of the various insects which infest the Rose.

DESTRUCTION OF GROWING ROSES BY THE LARVA OF A FOUR-WINGED INSECT OF
THE ANCIENT GENUS TENTHREDO, BY DR MERAT.

By Dr. Mérat.

The malady of rose-trees which I am about to make known has been nowhere described. Scarcely any traces of it can be found in authors, although known, by its ravages, to professed gardeners and some Rose amateurs. That which I am now about to publish is the result of five years' observation made in my own garden.

In the month of April, if the temperature should happen to reach twelve or fifteen degrees of Reaumur, insects which are supposed to be flies, hover around the rose-trees then just beginning to sprout. They alight on the growing leaves, make an opening at the arm-pit of one of them by the use of a kind of saw (whence the name of *saw-fly*), which the female thrusts from the extremity of her abdomen, and deposits in it an egg, or more probably a living worm (the manner of the carnivorous fly). As soon as this is done, this larva, almost imperceptible at first, is seen to excavate a hole and making lodgment in it, to extend a small passage, in a downward direction, into the stem of the future Rose, which passage it enlarges in length and size, and then makes its egress through another opening, which it makes in the lower part of the passage.

The appearance of the saw-fly does not occur at the same time every year. It always coincides with the first budding of the rose-tree. It is evident, that if it should occur before that time, the fly would perish for want of food, and without leaving offspring, an accident contrary to the economy of nature. If the development of the rose-trees were too far advanced, the insect, which is very weak, could not penetrate the sprouts, on account of their having become too hard, and it could not, therefore, leave offspring.

I note here the date of the appearance of these insects in five different years: In 1840, it happened on the 5th day of May; in 1841, the 25th of April; in 1842, the 15th of April; in 1843, the 3d of April. Respecting this last and very early

appearance, I should state, that it had been like summer weather for 15 days, which was probably the cause of the difference. In 1844, it was on the 20th of April.

The insect makes its puncture at the arm-pit of the leaves or bracts, growing on the sprouts which bear the flower. This support or stalk is more juicy and larger than that which bears leaves alone—and is thus preferred by the insect, although the leaf stalk is by no means exempted. Thence it digs a passage, uses the tender pulp for its food, in the same way with many other insects.

This false caterpillar, as naturalists term it (they regarding as the true those alone which become butterflies, having five or six eyes on each side of the head, etc.), grows in length for about 12 or 15 days. Imperceptible at first, it finally attains from three to six lines in length, by a-half line or more in thickness. It eventually assumes the green color of the leaves of the rose-bush, and forms one of those natural harmonies so eloquently described by Bernardin de Saint Pierre. Its body is smooth, nearly transparent, cylindrical; its head is globular and shining, with an eye on each side, resembling a little spot; its mouth, crosswise, reddish, and more deeply colored at the corners. The under side of the body presents six fore-feet, and next to these nine wrinkles provided each with two nipples, which appear to be additional or hind-feet. If this animal is viewed in an artificial light, its great intestine is seen, the whole length of the body, like a colored line. Two worms sometimes get into the same passage of the stem. This happens when two saw-flies have attacked the support at different points, and meet in the same passage. They become poor and soon die; but it is a rare occurrence. At other times, the larva perishes when there is but one, on account of its inability to escape from the passage, by reason of the toughness of the plant, or the thickness the wood has attained since its entrance. This may, perhaps, be one cause of the decay of rose-plants. The ordinary duration of its stay is from 12 to 15 days. In that time it lives protected from the heat of the sun, or from the cold, very much at ease in a pliable asylum, whose tender pulp serves it for food.

This passage is from eighteen lines to two inches long. Its inside is smooth and moulded, as it were, upon the form of the false caterpillar, in such a manner that it cannot turn round in it. Upon pressing the peduncles between the fingers, it will be perceived that they are fistular, and that their volume is, in fact, much greater than those which do not shelter these destructive insects.

The larva carries away the remaining excrement by means of the entrance-opening, to which it ascends backward, as it cannot turn round in the gallery. It consists of small, slightly curved cylinders. The insect lays it in a little heap, reddish, at first, but afterward nearly blackish, which is perceptible to the naked eye, and reveals to the somewhat careful observer this enemy of the most beautiful blossoms. As it increases in size, the last excrements force out the old, and thus the little heap becomes visible, as just stated.

The hole by which the worms escape, is in proportion to their size. It is usually at the lower part of the passage; but is sometimes found higher up, and sometimes even midway, probably because the animal found the stem thicker, harder and more firm at the bottom, than at the place it finally selected for that purpose. This hole is evidence of its dislodgment, or at least that there are not two inside, as sometimes happens; sometimes the passage is very short, because the animal was so poor that it could not dig farther.

It makes egress, as I have described, from the passage where it was nourished and grew; but, with a single exception, I have never yet been able to catch it in

the act, because it doubtless does it in the night. On that occasion it lets itself slide to the earth upon a thread it had secreted for the purpose; unfortunately, I caught it, and put it under a glass with some rose-tree leaves, an undoubted mistake—since, having attained its full growth, it would no longer eat, and utterly refused the leaves. It should have been permitted to fall entirely to the ground, where it would probably have enveloped itself in a casing of soft network, or a shell, as it did under the glass, and have been changed into a nymph or chrysalis to come forth a perfect insect the next spring.

It is an experiment I recommend to amateurs, and one which requires great care. It is the only means in our power of ascertaining the veritable insect which produces the larva so destructive to roses.

In my first work, I attributed this larva to a four-winged insect of the genus *Tenthredo*, and named it *Tenthredo excavator*, thinking it new. I have since ascertained—1st, not only that it was not a new species, but moreover also, that it is doubtful whether it is the parent of this larva—2d, that this *red-fly*, as the gardeners call it (and under this name they confound many different species), is the *Tenthredo Rosæ* of Panzius¹—3d, that it is not by digging in the peduncles that it injures the Rose, but by boring the Rose when its bud is large, and thus destroying the top of the blossom, which withers, and is partially ruined while its peduncle yet remains firm—since it destroys the Rose alone, which it pierces, and sometimes only the upper part of that. Upon opening these altered blossoms, worms are found larger than those which pierce the peduncles, and which are the offspring of the eggs deposited there. Generally the larva of the saw-fly is of too large a size by far, to allow of the supposition that it is the same insect, as is evident from the figures of each given by Reaumur.

As I am not mathematically certain upon this subject, I recommend the study of the habits of the saw-fly, of which I have given a description in another place, in order that it may be recognized. I will hereafter describe the white-footed *Tenthredo*, supposed with more reason to be the parent of the larva, which excavates the stem that bears the Rose.

The *red-fly* of the gardeners, the *Tenthredo Rosæ* of Panzius, and the *Hylotoma Rosæ* of Fabricius, is a four-winged insect, whose generic characters are, a single radiated cellule and four cubitals at each upper or superior wing, and antennæ

¹ More than sixty species of the ancient genus *Tenthredo* live at the expense of different parts of the rose-tree, the leaves, blossoms, fruit, bark, etc. But the larvæ of the saw-fly, whose ravages I have described, cause more than three-fourths of the depredations, and it is therefore important to distinguish them.

Reaumur speaks in his *memoires*, of a false caterpillar (tome v. p. 98,) which inoculates the rose-tree, and gives a drawing of its larvæ (pl. x.), also of the altered branches (same pl. f. 1 & 2). It is not thus the ravages of my insect show themselves; it is probable, as Saint-Fargeau thinks, that it is a different insect.

Reaumur (*mem.* v. 102) speaks also of a false caterpillar which he calls *Chenille bizarre*, on account of its raising the end of its tail like a serpent. It eats the leaves of the rose-tree in June, July and August. He gives a drawing of this larva (pl. xiv. fig. 1, 2, 3,) and the fly or tenthredine which gives it birth, (same pl. fig. 10.) They are seen in great numbers in the spring, especially in moist seasons. The rose-trees in free soil are sometimes stripped of all their leaves, of which there remains only a sieve, by this larva, which is rarely alone on a leaf, and eats its sides and upper part.

Another larva, also distinguished by the same naturalist (pl. xii. f. 20, 21), eats the lower part of the leaf. It is much smaller. Here are then four saw-flies, the two of which I have here spoken and the two mentioned in the text, whose larvæ commit most havoc on rose-trees. The first, however, injure only the leaves.

The worms found in fruit and vegetables are almost always larvæ of the tenthredines.

somewhat resembling a club. The greater part of its body is red, except the head, the upper part of the thorax, the marginal point of the upper wings, and the circles of the tarses, which are all black. It is from three and a-half to four lines long, by one in thickness. The antennæ are covered, united, but not articulated. Those of the male are fine hair: their wings are transparent, thin as the peel of an onion, and reticulated by close lines; there are two wings near the head, called the *superior*—and two farther removed, called the *inferior*. The head is quadrilateral and long, the eyes long and whitish, and the abdomen seems to confound itself with the thorax, whose shell, black, cordiform and swelling, terminates with a yellow color. This abdomen has nine distinct rings, is somewhat compressed downward; the posterior extremity is obtuse, slit longitudinally for the protrusion of the saw in females, crosswise and open in males.

This insect flies with difficulty, and is easily caught with the fingers upon the full-sized leaves of the rose-bush, where it lies all day, from May to August. Its appearance is, at least, fifteen days later than that of the white-footed fly. But it is less numerous toward the end of the season, when isolated individuals alone are seen.

The white-footed fly comes into the ancient genus *Tenthredo* of authors, and of Saint-Fargeau particularly, and also the genus *Selandria* of the moderns. Its abundance at the time the rose-trees are attacked, and the cessation of the malady upon its disappearance, give reason to suppose, with a degree of probability, that they are the cause of it. This genus is characterized by two radiated cellules and four cubitals, unequal at the superior wings, antennæ articulated and small at the end. It is black all over, except the feet, which are pale white. It is one and a fourth line long, and a-fourth in thickness. Its antennæ have nine joints, and are somewhat small at the end. The wings are transparent, very thin, with dusky nervures, and completely folded on each other, when it becomes cold by a change of temperature. Cold does not always injure them. On the seventeenth day of April, 1842, the temperature was at two degrees of Reaumur, and yet I took a small worm out of the arm-pit of the leaves of one of my rose-trees. The superior wings are nearer to the head, which is quadrilateral, with a large eye on each side. The abdomen of the females is terminated by a point or sort of saw, while that of the males is obtuse. They have a small white shell on the shoulders, at the insertion of the antennæ. The feet are whitish, excepting in some individual the moiety of the thigh nearest the abdomen, which is black, and appears to constitute a variety of this insect. In this species, as in the *red-fly*, females are but one-tenth the size of the males, and the white-footed are twenty times more numerous, and one-half less than the red species. It is born in April, as I have before stated, and ceases to show itself about a month after. This fly, which is perfectly smooth, does not appear to hatch after this period. At least, I have not observed it later, while I have seen the red-fly most of the year.

In the cool of the morning, and in particular localities, the white-footed-fly is seen to form whirlings around rose-trees. Its smallness and agility make it difficult to catch, otherwise than with a net.

I have sometimes found them dead, in the arm-pits of the leaves, probably after they had laid their eggs.

M. Gesérin Menneville, to whom I sent this white-footed-fly, thinks it a new species, distinct from the *Selandria albipes* (or *Tenthredo morio*), and the *Selandria pallescens* of Gmclin. He wishes to call it *Selandria Meratii*; but I prefer to give the name of *Excavator*, as in my first notice, and to term it the *Selandria Excava-*

tor, a designation which gives a perfect idea of the manner in which the saw-fly destroys roses.

Whatsoever may be the species of saw-fly which gives birth to the Excavating worm, a point on which there is not yet sufficient knowledge to pronounce with certainty, its ravages are prodigious, and now well known.

* As gardens are more exposed to the sun, more airy, less shaded, the rose-trees are less injured by this larva. At Paris, most of those pertaining to particular mansions are very much troubled, and mine among the number. Among those connected with the monuments of the capitol, "Le Jardin des Plantes" is most noted for its damages—next after it, the "Luxembourg" and the "Palais Royal." The "Tuilleries" suffers least. In these large establishments, not much, if any attention, is bestowed on it, so trifling comparatively is the injury.

Our false caterpillar attacks the four-season rose-tree more particularly; the *Centifolia*, whose sprouts are large and tender; the *Pompon*, etc.: the later roses, as the *Provence*, the *Frankfort*, etc., are less subject to it. Those grafted on high trunks, especially the *Bengals*, so abundant in the gardens at this day, resist this injury better, on account, either of the greater solidity of their tissue, or their sprouting later in the season. The moss-rose, and the thorny or *pimpernel* rose, are rarely molested; because the fly cannot easily find footing to introduce her saw. It is the same with rose-trees well provided with vine-fretters, although the shrub does not gain much by it, for these small animals destroy, in their way, the roses on the peduncle, by heaping themselves upon them.

As this larva is not seen much over a month, the *remontant* or perpetual roses are found not to be injured by it at all. Thus the monthly, or four-season rose sprouts the second time, while the *centifolia* not blooming again, does not possess the same advantage.

The damage consists, as I have already stated, in the destruction of the centre of the young sprouts of the rose-tree, thus depriving them of the organs necessary to their growth. The ravages of this enemy cause the sprouts to wilt and droop towards the earth, and its presence can be thus detected. I have sometimes seen the whole rose-tree thus affected. More than three-fourths of the sprouts of those in the free soil of my garden have been destroyed in this way within four years, and all the means used were ineffectual to keep the insects away.

I used various methods in succession, with the hope of finding a remedy for this disaster. I endeavored to destroy the nymphs or chrysales, before their hatching, thus: 1st, I scraped, rubbed, brushed, washed, etc., the trunks of my shrubs, believing, as some authors also do, that the saw-fly deposits its eggs in the wrinkles or crevices of the bark, as it is the nature of some tenthreds, and all in vain; in fact, all my examinations with a magnifying glass have not enabled me to discover a single egg on the bark of my rose-trees: 2d, I have cut off at the surface of the ground in the latter part of the season, these same trunks, with the same idea; and these animal devastators have yet excavated the peduncles of my roses: 3d, I have ploughed, dug, and turned up the earth at the foot of my rose-trees before the hatching of the nymphs of the saw-fly, in the hope that they would be laid there when the worm should let herself down upon the ground, and be killed by this overturning process, but without effect: 4th, I have placed at the foot of rose-trees: animal carbon, a bitter substance, composed of pungent and stinging materials, without any favorable result.

All these attempts at destruction are entirely useless, when the fly has hatched and deposited her larva in the young sprouts. We should then seek to destroy

this larva. As soon as it is perceived in April, that the temperature has passed beyond 12 to 15 degrees, and that the rose-trees put forth sprouts, they should be examined with care. Persons having good eyes, or by using a magnifying glass, can see the small punctures made in the arm-pits of the leaves, by the saw of the fly, and if they are sufficiently fortunate to perceive the small worm, he can be taken out with a fine long needle, or simply with a pin. Sometimes it is not discovered until some little time after it has commenced digging. It is not then too late to extract it by the same process. I have also fitted a handle to a long needle, for facilitating the extraction of the worm at the period of its birth. Its appearance is most usually indicated by the small heap of red dust at the mouth of the opening at which it entered. The point of the needle may then be thrust through the hollowed peduncle, without injury, especially if the needle be very fine, and the ravage far advanced. It is sufficient to crush the animal by pressing the peduncle between the fingers; but carefully, lest the branch should be destroyed at the same time. The slightest touch destroys this feeble worm. But if the branch be already considerably injured, which may be known by its drooping, there is, then, no longer, any remedy. The branch must be cut off, particularly if the animal is yet in it, which is indicated by the absence of the hole for egress. It has, in most cases, already escaped when the havoc has advanced to that extent. The peduncles of rose-trees may be hardened by piercing them with a needle, before the worm penetrates them. A cicatrice growing there prevents the digging of this troublesome guest, and stays its destructive course.

Notwithstanding the inefficiency of the means in our possession to accomplish it, every attempt should be used to destroy this insect in its perfect state. The most simple consists in pursuing it closely with a net. A hundred an hour may be caught by exercising a little perseverance in the pursuit. I imagined I might keep the saw-fly from the rose-tree by covering the top with gauze. In spite of all my precautions, some few, at least, would succeed in obtaining entrance; perhaps I was too late, although I usually did it before the development of the sprouts. At other times, if I were so fortunate as to protect them from the saw-fly, I destroyed my rose-trees by depriving them of air. For one can scarcely conceive how effectually so thin a net prevents its approach, or, at least, its circulation, as may be seen by the change of the leaves as they unfold. Moreover, other larvæ, the false caterpillar particularly, retreat, in great numbers, into the parts which contain them. Another difficulty is, that this experiment can be made only on tree roses, which have trunks. For the others always having a great quantity of branches, render their complete destruction almost impossible. I will here state, however, that when I have put gauze around rose-trees which the saw-fly had already attacked, they have all come out of their passage and escaped without my being able to seize one, or even to discover where they made their exit.

For the same purpose (protecting rose-trees from the saw-fly), I have covered the young sprouts with oil by means of a small brush. I had there another result. There were no larvæ, but I had destroyed the vegetation of my rose-trees. I ought, however, to confess that I have not persevered in this kind of experiments. The liquid should be repeatedly tried and varied. For one may possibly be discovered which will not injure the vegetation, at the same time that it will expel the insects. Very odorous liquids may have such a property. Pure water does not seem to disturb them. I have seen rose-trees utterly destroyed in spite of an almost continual rain. Perhaps they had been punctured before it commenced.

The best and most certain preservative of rose-trees, as I have already shown,

is plenty of air, free access of sunshine to them, absence of moisture; and, if possible, the entire removal of overhanging trees, walls, etc. The influence of these atmospherical agents hardens the texture of the shrubs, and thus renders them impenetrable to these insects. In addition to this, their indolence and tenderness makes them prefer the shade for laying eggs, which seems never to be done but in darkness.

On terminating this little work, I propose to leave the solution of several points to those who shall continue it:

1st. What is precisely the species of the saw-fly, whose larva commits the havoc I have described?

2d. Is that the true *white-footed saw-fly*, which I have designated by that name.

3d. What transformation does this larva undergo, after it leaves the passage which it has dug?

4th. Does it belong to the species of the *Selandria Excavator*?

5th. Where does it await the period of its transformation into a perfect insect?

We have enumerated but a very small part of the numerous insects which infest the rose, and in the absence of correct information on this important branch of floriculture, it is much to be hoped that farther investigations will be made by men of leisure. As an instance of the great variety of these insects, a French writer remarks, that "he found in less than an hour, on the leaves of two species only of the Rose, six kinds of small caterpillars, all differing from each other in the number of their feet, the color of their head and body, and the lines and points with which they were marked. Their habits were all apparently the same. They lived between two or three folds, which they had secured in shape by the films of their silk. Thus enveloped and protected, they eat the leaf until it is wholly or at least partly consumed. They then endeavor to establish themselves on another leaf, in which also they enwrap themselves and consume it in the same manner. The plants attacked by these caterpillars are known by their ruffled leaves, partly eaten and more or less covered with silk." The writer does not give their name, nor the result of any experiments for their destruction; he merely mentions it, as an instance of the great abundance of insects on almost every plant. Such being the case, there is abundant room for farther observation and research.

CLASSIFICATION.

CHAPTER XV

BOTANICAL CLASSIFICATION.

THE Rose is a shrub or dwarf tree, with mostly deciduous foliage, and large, beautiful and fragrant flowers. Its branches are slender, almost always armed with thorns, thinly furnished with leaves, and usually alternating on the parent stem. Its leaves are usually pinnate, and varying in color and character, from the rich, dark green and somewhat rough leaf of La Reine, to the glossy smoothness and rich purple edge of Chromatella. The blossoms are variously arranged at the extremity of the newly-formed branches. The calyx is single and tubular, swelling at its lower part, contracted at its opening, and divided at the edge into five lance-pointed divisions, whole or pinnatifid. The corolla or flower is inserted at the mouth of the tube of the calyx, and is composed of five heart-shaped petals, which constitute the Rose in its single or natural state. The double blossoms are formed by the change of the stamens and pistils, into petals or flower leaves, shorter than those of the corolla. The fruit or seed vessel or *hep*, is formed by the tube of the calyx, which becomes a sort of plump, juicy berry, globular

or oviform, having but one cell, and containing numerous small seeds which are oval or globular, and surrounded with a soft down. The wood is very hard and compact, and of fine grain; and if it could be procured of sufficient size, would serve as a substitute for box in many kinds of manufacture. Its longevity is, perhaps, greater than that of any other shrub. We recollect seeing a rose-tree near an old castle in Stoke Newington, England, the stem of which was of immense size, and indicated great age. "There is a rose-bush flourishing at the residence of A. Murray McIlvaine, near Bristol (Penn.), known to be more than a hundred years old. In the year 1742, there was a kitchen built, which encroached on the corner of the garden, and the masons laid the corner-stone with great care, saying "it was a pity to destroy so pretty a bush." Since then it has never failed to produce a profusion of roses, shedding around the most delicious of all perfumes. Sometimes it has climbed for years over the second-story windows, and then declined by degrees to the ordinary height. The fifth generation is now regaled with its sweets."

The number of species known to the ancients, was small, compared with the number now recognized by botanists. Pliny, with whom we find the most detail on this point, says, that the most esteemed were those of Præneste and Pæstum, which were perhaps identical; those of Campania and Malta, of a bright red color, and having but twelve petals; the white roses of Heraclea, in Greece, and those of Alabande, which seem to be identical with *R. centifolia*. According to the Roman naturalist and to Theophrastus, they grew naturally on Mount Panga, and produced there very small flowers; yet the inhabitants of Philippi went there to obtain them, and the bushes on being transplanted, produced much improved and beautiful rosés. Pliny speaks also of some other species, one whose flowers were single, another which he terms *spinola*, and also that of Carthage, which bloomed in winter. Unfortunately, all that we find in his works on this subject is, generally, very obscure, and it is difficult to compare many he has described with those known at the present day.

Although there are no double wild roses known at the present day, either in Europe or in this country, yet as other flowers have been found double in a wild state, it is not impossible that some of the ancient varieties bore double flowers in their native condition in the fields. Such may have been the *Centifolias*, mentioned by Pliny and Theophrastus, as growing upon Mount Panga, and those which at a still earlier period, according to Herodotus, grew wild in Macedonia, near the ancient gardens of Midas.

The poverty in description which we have observed in ancient writings, and their comparatively small number of species, extends also to a much later day. In a little treatise published in France in 1536, and entitled *De re Hortensis Libellus*, there are but four species mentioned, and scarcely anything concerning their culture. An Italian work published in 1563, mentions only eight species. In the *Florilegium* of Sweet, a folio volume printed at Frankfort in 1612, are ten very coarse representations of roses, but with no indication of their names.

In the *Paradisus Terrestris* of Parkinson, a folio volume printed at London in 1629, some twenty-four species are mentioned. Some of them are represented by figures in wood, which are very coarse, and scarcely allow recognition of their species. In the *Jardinier Hollandois*, printed at Amsterdam in 1669, are found but 14 species of roses, very vaguely described, with scarcely anything on culture.

The first work which treated of roses with any degree of method, is that of La Quintyne, published at Paris in 1690, and yet its details of the different species and varieties do not occupy more than a page and a half, while twenty-one pages are given to the culture of tulips and fifty to pinks. While he describes 225 varieties of pinks and 413 tulips, he mentions only 14 species and varieties of roses. For a century subsequent to the publication of La Quintyne's work, the Rose is very little mentioned, either in English or French works, and there is nothing to indicate the existence at that time of many species, two or three only being required for medicine and perfumery. Some of

the English collections, however, numbered during that century some 22 distinct species, and a number of varieties. In 1762, Linnæus was acquainted with only 14 species. In 1799, Willdenow, in his *Species Plantarum*, mentioned 39; and Persoon, a little later, reached 45 species; De Candolle, in his *Prodromus*, &c., published in 1825, increased the number to 146; and Don, in 1832, makes 205 species. If to these are added those which have been within fifteen years discovered in the Himalaya mountains, and in other parts of the globe, the number will be greatly increased.

Many of those enumerated by Don, should not, in truth, be considered distinct species, and quite a number are nothing more than varieties. In fact, roses are so liable to pass into each other, that botanists are now of the opinion that limits between what are called species do not exist; a fact which was strongly suspected by Linnæus, when he said, "Species limitibus difficillime circumscribuntur, et forte natura non eos posuit."

There is much confusion in the genus *Rosa*, and in the best arrangement, there may be many which on close examination, would scarcely deserve the name of species. The best scientific work on the Rose, is the "*Monographia Rosarum*," by Dr. Lindley. This author and Loudon, we shall follow entirely in our botanical classification. The latter enumerates several other works on the Rose, which are not within our reach.

The Rose is found in almost every part of the northern hemisphere, between the 19th and 70th degrees of latitude.

Captain Fremont, in his description of the Prairies some five hundred miles west of St. Louis, says—"Every where the Rose is met with, and reminds us of cultivated gardens and civilization. It is scattered over the prairies in small bouquets, and, when glittering in the dews and waving in the pleasant breeze of the early morning, is the most beautiful of the prairie flowers."

It is found from the mountains of Mexico to Hudson's Bay, from the coast of Barbary to Sweden, in Lapland and Siberia, from Spain to the Indies, China and Kamschatka. "In Asia, half the species have been found; of the thirty-nine which it

produces, eighteen are natives of the Russian dominions and the countries adjacent. Most of these are very similar to the European portion of the genus, and five are common both to Europe and Asia. Of the remainder, one, which is, perhaps, a distinct genus, has been discovered in Persia, fifteen in China, and two of the latter, with four others, in the north of India, &c.¹

We shall not here describe all the species mentioned by Lindley and Loudon; but only those possessing some distinct characteristics. A large part of the species described by these authors cannot be found in any collection in this country; and in fact, very few possess any interest except to the Botanist, for whose benefit chiefly is this classification.

I. FEROCES. Lindl. Mon., p. 3.

Derivation. From *ferox*, fierce: in reference to the branches being thickly beset with prickles.

Sect. Char. Branches clothed with permanent tomentum. Fruit naked. The plants contained in this section are a truly natural group; they are low shrubs, losing their leaves early in autumn, and are then remarkable for their hoary branches, bristles, and numerous prickles. Their fruit is perfectly smooth, which separates them from the next section, in which the fruit is downy. Sepals usually toothed. (*Don's Mill.*, 2, p. 565.)

1. *R. FEROX* Lawr. The fiercely-prickled Rose.

Identification. Lawr. Ros., t. 42; Don's Mill., 2, p. 565.

Synonymes. *R. Kamtschatica* Red Ros., 1, p. 47.; *R. kamschatica*, *ferox* Ser. in *Dec. Prod.*, 2, p. 607: *R. echinata* Dupont.

Spec. Char., &c. Prickles all alike in shape, and much crowded. Flowers large, red. Fruit globose, scarlet. A shrub, a native of Caucasus, growing to the height of 3 ft. or 4 ft., and flowering in July and August. A singular shrub, and on that account deserving a place in collections.

2. *R. (F.) KAMTSCHA'TICA* Vent. The Kamtschatka Rose.

Identification. Vent. Cels., t. 67; Don's Mill., 2, p. 565.

Spec. Char., &c. Prickles infra-stipular, falcate, large. Leaves opaque. Flowers solitary, deep red. Fruit spherical, scarlet, less than that of *R. ferox*. (*Don's Mill.*, 2, p. 565.) Native of Kamtschatka, in dry rocky places, growing to the height of 3 ft. or 4 ft., and flowering in June and July.

II. BRACTEATÆ.

Sect. Char. Branches and fruit clothed with permanent tomentum. This section is readily distinguished from the last by the woolliness of the fruit. Leaves dense, usually shining, and prickles placed under the stipules in pairs. Sepals simple, or nearly so. (*Don's Mill.*, 2, p. 565.)

¹ Monographia Rosarum, xxix.

3. *R. BRACCTEA* Wendl. The large-bracted Rose.

Identification. Wendl. Obs., 50; Hort. Herrenhaus., fasc. 4, p. 7, t. 22: Red. Ros., 1, p. 35, ic.; Lindl. Ros. Mon., p. 10: Dec. Prod., 2, p. 602; Don's Mill, 2, p. 565.

Synonyme. Lord Macartney's Rose.

Spec. Char., &c. Evergreen. Branches upright, tomentose. Prickles stout, recurved, in many instances in pairs. Leaflets 5—9, obovate, subserrate, coriaceous, glossy, glabrous. Stipules scarcely attached to the petiole, bristle-shaped, but fringed. Flowers solitary, terminal, white, large. Peduncles and calyxes tomentose. Fruit globose, large, orange-red. (*Dec. Prod.*, 2, p. 602.) Flowers showy, pure white, solitary, nearly sessile. Fruit spherical, orange-red. Native of China; growing to the height of 5 ft. or 6 ft., and flowering from June to October. A very ornamental shrub, evergreen, with large white flowers, and numerous bright yellow stamens and styles. It flowers abundantly, but is rather tender. It succeeds best when trained against a wall.

4. *R. (B.) MICROPHYLLA* Roxb. The small-leafleted Rose.

Identification. Roxb. Fl. Ind. ined., according to Lindl. Rosar. Monog., p. 9, 145, 146; Dec. Prod. 2, p. 602; Don's Mill., 2, p. 565.

Synonyme. Hoi-tong-hong, Chinese.

Spec. Char., &c. Stem almost without prickles. Leaflets glossy, sharply serrated, veiny beneath, with densely netted, anastomosing veins. Stipules very narrow, unequal. Flowers double, of a delicate rose-color. Calyx densely invested with prickles. Sepals short, broadly ovate, echinate, ending in a point. Prickles having at the base two longitudinal furrows. (*Dec. Prod.*, 2, p. 602.) Flowers very large, double, and of a delicate blush color. Native of China; growing to the height of 2 ft. or 3 ft., and flowering from August to October.

5. *R. (B.) INVOLUCRATA* Roxb. The involucred-corymbed Rose.

Identification. Roxb. Fl. Ind. ined., according to Lindl. Rosar. Monog., p. 8; Dec. Prod., 2, p. 602; Don's Mill., 2, p. 505.

Synonymes. *R. Lindleyana* Tratt. Ros. 2, p. 190; *R. palustris* Buchan. (*Ham.*) MSS., according to Lindl. Rosar. Monog., p. 8.

Spec. Char., &c. Shoots long, tender. Branches pale brown, tomentose, scarcely prickly. Leaflets 3—9, elliptical-lanceolate, tomentose beneath. Stipules hardly attached to the petiole, bristle-like-fringed. Flowers terminal, mostly solitary, white. Peduncles and calyxes tomentose. (*Dec. Prod.*, ii. p. 602.) Seringe seems to consider this as a variety of *R. bracteata*. It is a native of Nepal and China, with white flowers in corymbs, surrounded by three or four approximate leaves; grows to the height of 3 ft. or 4 ft.; and flowers in June and July. Plants of this kind, which is very distinct both in its foliage and its flowers, are rare in collections. Being somewhat tender, it is greatly improved in growth by the protection of a wall, on which it makes a fine appearance.

III. CINNAMOMEÆ. Lindl. Ros., p. 13.

Sect. Char. Plants setigerous or unarmed, bracteate. Leaflets lanceolate glandless. Disk thin, never thickened. This section is distinguished by its long lanceolate leaflets, without glands, upright shoots, and compact habit. Red flowers, never solitary, except by abortion, and always supported by bracteas. Round, small, red fruit (soon losing its long narrow sepals), and with small, smooth, shining carpels. The shoots are usually setigerous next the ground; but rarely so towards the apex, except in one or two instances. *R. alpina* and *R. acicularis*, of the following division, sometimes have bracteas; but their sepals never fall off till the fruit is decayed. Sepals simple, entire, or nearly so, unless when mentioned otherwise. (*Don's Mill.*, 2, p. 565.)

6. *R. LU'CIDA* Ehrh. The shining-leaved Rose.

Identification. Ehrh. Beitr., 4, p. 22; Red. and Thor. Ros., 1, p. 45, ic.; Lindl. Rosar. Monog., p. 17; Jacq. Fragm., t. 107, f. 3; Dec. Prod., 2, p. 602; Don's Mill., 2, p. 565.

Synonymes. *R. rubra lucida* Rossig. Ros., t. 7, and t. 25, f. 1; *R. lucida* Jacq. Fragm., 71; Rose Turneps; Rosier à Feuilles de Frêne, Fr.

Spec. Char., &c. Prickles recurved, or none. Leaflets 5—9, lanceolate-elliptical, coriaceous, bluntly serrated, glossy. Stipules dilated, large, finely serrated, and extended as far as to the leaflets. Peduncles somewhat hispid. Flowers red, and opening late in the season. Sepals almost entire, appendicled, spreading. Fruit oblatly globose, a little hispid or glabrous, scarlet. (*Dec. Prod.*, 2, p. 602.) Flowers red, overtopped by the leaves and young branches. Fruit bright red. A native of North America, from New York to Carolina; near Boston, in bogs, and on the edges of marshes, and in Newfoundland. Growing from the height of 4 ft. to 6 ft., and flowering from June to August. A handsome species, on account of its shining foliage, and one which is very hardy; but the flowers have a very disagreeable smell.

7. *R. (L.) NI'TIDA* W. The glossy-leaved Rose,

Identification. Willd. Enum., 544; Lindl. Rosar. Monog., p. 13; Dec. Prod., 2, p. 603; Don's Mill. 2, p. 565.

Synonymes. *R. Redutæa rufescens* Thory in Red. Ros., 1, p. 103, ic.; the dwarf Labrador Rose.

Spec. Char., &c. Dwarf and reddish in aspect. Stem and branches almost covered with slender, rather equal prickles. Leaflets 5—9, rather rigid, lanceolate, glossy. Stipules large, finely serrated, extending as far as to the leaflets. Flowers red. Peduncle bristly. Sepals spreading. Fruit bristly, shining and scarlet. (*Dec. Prod.*, 2, p. 603.) A shrub, a native of Newfoundland, beset with straight red spines. Flowers deep red. Fruit depressed, spherical, bright scarlet; growing to the height of 2 ft., and flowering from June to August. This is an interesting plant, from its dwarf stature, its abundant reddish prickles, its glossy leaves, its flowers, and its fruit. Seringe seems to think it a variety of *R. lucida*. The *R. nitida*, which forms No. 36. in *Lodd. Cat.*, ed. 1836, is a variety of *R. ferox*.

8. *R. (L.) RA'PA* Bosc. The Turnip-fruited Rose.

Identification. Bosc. Dict. d'Agric., according to Poir. Suppl., 4, p. 710; Lindl. Rosar. Monog., p. 15; Red. and Thor. Ros., 2, p. 7, ic.; Dec. Prod., 2, p. 602; Don's Mill., 2, p. 565.

Synonymes. *R. turgida* Pers. Ench., 2, p. 49; *R. fraxinifolia* Dumont in Cours. Bot. Cult.

Spec. Char., &c. Taller than *R. lucida*, and spreading. Branches without prickles. Leaflets oblong, undulate, shining. Fruit hemispherical. Closely allied to *R. lucida*, of which it is very likely a variety. (*Dec. Prod.*, 2, p. 602.) Petals always multiplied, smaller than those of *R. lucida*; bright red. Fruit deep red. Sepals compound. Native of North America, in the warmer States; growing from 3 ft. to 4 ft. high, and flowering from June to August. This is only known in its double-flowered state in British gardens. It is a freely growing, hardy plant, with large double flowers, and is desirable both in flower-gardens and shrubberies. It is not of a robust habit, but forms a bush about 3 ft., or perhaps more, in height. According to Dr. Lindley, this rose forms a taller bush than *R. lucida*, but is of a more straggling habit. It is, he says, "a naked, straggling briar, with scarcely a vestige of prickles on the shoots; its flowers are on long stalks, the mouth of the fruit is so wide, that the fruit itself is nearly hemispherical; and the sepals are reflexed." (*Ros. Monog.*, p. 16.)

9. *R. WOODSII* Lindl. Wood's Rose.

Identification. Lindl. Ros., p. 21; Don's Mill., 2, p. 566.

Synonyme. *R. lutea nigra* Prov. Nom., p. 24.

Spec. Char. &c. Stipules and sepals connivent. Leaflets oblong, obtuse, glabrous. (*Don's Mill.*, 2, p. 566.) A low shrub with dull, dark branches. Flowers pink. Fruit ovate, naked. There is a plant which was gathered about Cumberland House Fort, which Mr. Borrer takes to be a variety of the present species, having the leaves downy beneath. A native of North America, near the Missouri, and north of the Saskatcha-

wan, and as far as the Bear Lake; growing to the height of 2 ft. or 3 ft., and flowering from March to June.

10. *R. FRUTETORUM* Bess. The Coppice Rose.

Identification. Bess. ex Spreng. Syst. 2, p. 548; Don's Mill., 2, p. 565.

Spec. Char., &c. Prickles almost stipular, strong, reflexed. Petioles unarmed, and as well as the under surface of the leaves, villous. Leaflets elliptic. Peduncles very short, glabrous. Fruit globose, glabrous. (*Don's Mill.*, 2, p. 565.) Native of Volhynia; growing to the height of from 5 ft. to 6 ft., and flowering in June and July.

11. *R. CAROLINA* Lin. The Carolina Rose.

Identification. Lin. Sp., 703; Don's Mill., 2, p. 566.

Synonymes. *R. virginiana* Du Roi Harbk., 2, p. 353; *Rossing. Ros.*, t. 13; *R. palustris* Marsh. Arbr., 135; *R. corymbosa* Ehrh. Beitr., 4, p. 21; *R. pennsylvanica* Mich. Fl. Bor. Amer., 1, p. 296; *R. Hudsoniana* Red. Ros., 1, p. 95. t. 35; *R. carolina* Bigel. Fl. Bost., 121.

Spec. Char., &c. Stipules convolute. Leaflets lanceolate. Sepals spreading. (*Don's Mill.*, 2, p. 566.) Branches green, or reddish brown. Cymes 1- or many-flowered. Flowers crimson. Petals concave or flat, crumpled. Fruit round, scarlet, hispid. Sometimes the ends of the shoots have no prickles. Native of New England, Virginia, and Canada as far as the Saskatchewan; growing to the height of from 2 ft. to 8 ft., and flowering in June and July. As the name of *R. palustris* imports, it grows best in a marshy soil.

12. *R. LINDLEYI* Spreng. Lindley's Carolina Rose.

Identification. Spreng. Syst., 2, p. 647; Don's Mill., 2, p. 565.

Synonymes. *R. laxa* Lindl. Ros., 18, t. 3; *R. carolina* Ait. Hort. Kew., ed 2, vol. 3, p. 260; *R. carolina* pimpinellifolia Andr. Ros., with a figure.

Spec. Char., &c. Diffuse. Branches twiggy, almost unarmed. Leaflets oblong undulated, opaque, glaucescent. A spreading shrub, with reddish-brown branches. Flowers rose-colored, growing usually in pairs. Native of North America. In cultivation, growing from 3 ft. to 4 ft. high; and flowering in July and August.

13. *R. PARVIFLORA* Ehr. The small-flowered, or Pennsylvanian, Rose.

Identification. Ehrh. Beitr., 4, p. 21; Du Roi Harbk., 2, p. 354; Don's Mill., 2, p. 555.

Synonymes. *R. humilis* Marsh. Arb., 136; *R. caroliniana* Mich. Fl. Bor. Amer., 1, p. 295; *R. caroli* y et *δ* Ait. Hort. Kew., ed. 2, vol. 3, p. 260; Pennsylvanian Rose *Laur. Ros.* t. 3, et t. 66, and of the nurseries.

Spec. Char., &c. Dwarf. Stipules linear. Prickles acicular. Leaflets lanceolate, smoothish, sharply serrated. Calyxes clammy. A very low, weak plant. Flowers pale blush, usually growing by pairs. It is a native of North America, on the declivities of hills, in the States of New York and Carolina, where it grows to the height of 2 ft., flowering from June till August.

14. *R. FRAXINIFOLIA* Bork. The Ash-leaved Rose.

Identification. Bork. Holz., 301; Ker Bot. Reg., t. 453; Don's Mill., 2, p. 566.

Synonymes. *R. virginiana* Mill. Dict., No. 10; *R. blanda* a Sol. MSS., Jacq. Fragm., 70, t. 105; *R. corymbosa* Bosc Dict. d'Agri. ex Desf. Cat. Hort. Par., p. 272?; *R. alpina* β Ait. Hort. Kew., ed. 2, vol. 3, p. 265. *R. alpina* lævis Red. Ros., 1, p. 57; *Laur. Ros.*, t. 75.

Spec. Char., &c. Tall, unarmed. Branches straight, glaucescent. Leaflets opaque, undulated, and glabrous. Branches dark purple, with a pale blue bloom. Flowers small, red, in few-flowered cymes. Fruit naked, small-round or ovate, of a dull, pale red. A native of Newfoundland, and on the north-west coast of America; growing to the height of from 4 ft. to 6 ft., and flowering in May and June.

15. *R. CINNAMO'MEA* Besl. The Cinnamon-scented Rose.

Identification. Besl. Hort. Eyst. Vern. Ord., 6, p. 5; Lin. Sp., 703; Don's Mill., 2, p. 566.

Synonymes. *R. fecundissima* Munch. Hausv., 5, p. 279; *Fl. Dan.*, t. 1214; *R. majalis* Herm. Diss., 8.

Spec. Char., &c. Tall, cinerous. Branches straight. Prickles stipular, straightish. Stipules dilated, undulated. Leaflets oblong, obtuse, wrinkled, tomentose beneath.

Flowers solitary, or 2—3 together, pale or bright red. Fruit round, naked, and crimson. The double-flowered variety is most common in gardens. A native of most parts of Europe. Growing to the height of 5 ft. or 6 ft., and flowering in May and June. A very desirable sort, on account of its fragrance, which resembles that of cinnamon. There is a semi-double variety; and the single state is supposed to be identical with *R. majalis* below.

16. *R. MAJALIS* Retz. The May Rose.

Identification. Retz. Obs. Bot., 3, p. 33; Don's Mill., 2, p. 566.

Synonymes. *R. mítica* Fl. Dan., 688; *R. spinosissima* Gorter. Ingr., 78; *R. colíncola* Ehrh. Beitr., 2, p. 70; *R. cinnamómea* Eng. Bot., 2338.

Spec. Char., &c. Dwarf, grey. Branches straight, colored. Prickles scattered, nearly equal. Stipules linear. Leaflets oblong, flat, glaucous, and tomentose beneath. Flowers usually solitary, pale red. Fruit orange red, spherical, and naked. Native of Sweden and Lapland; and of Britain near Pontefract, in Yorkshire: growing to the height of from 3 ft. to 4 ft., and flowering in May and June. This is supposed by some to be the single state of *R. cinnamómea*.

17. *R. DICKSONIANA* Lindl. Dickson's Rose.

Identification. Lindl. Hort. Trans., 7, p. 224; Syn. Brit. Fl., ed. 2, p. 99; Don's Mill., 2, p. 566.

Spec. Char., &c. Branches flexuous, setigerous, armed with a few slender, scattered prickles. Leaflets folded together, unequal, with coarse double serratures. Stipules, petioles, and sepals compound. Styles stretched out, glabrous. Flowers white. Native of Ireland; growing to the height of from 5 ft. to 6 ft., and flowering in June and July.

18. *R. TAURICA* Bieb. The Taurian Rose.

Identification. Bieb. Fl. Taur., 1, p. 394; Don's Mill., 2, p. 566.

Spec. Char., &c. Tall, cinerous. Prickles scattered, weak. Branches straight, unarmed toward the apex. Leaflets oblong, wrinkled, villous beneath. Sepals compound. Styles stretched out, glabrous. Habit of *R. cinnamómea*. Flowers red. Native of Tauria, in bushy places; growing to the height of from 5 ft. to 6 ft., and flowering in June and July.

19. *R. DAHURICA* Pall. The Dahurian Rose.

Identification. Pall. Fl. Ros., p. 61; Lindl. Ros., p. 32; Don's Mill., 2, p. 566.

Spec. Char., &c. Tall, much branched. Branches slender, colored. Prickles stipular, spreading, a little recurved. Stipules linear. Leaflets oblong, wrinkled, tomentose beneath, deeply serrated. Flowers red. Fruit ovate, red. Native of Dahuria and Mongol Tartary, in birch woods; growing to the height of from 4 ft. to 6 ft., and flowering in May and June.

IV. *PIMPINELLIFOLIAE*. Lindl.

Sect. Char., &c. Plants bearing crowded, nearly equal, prickles, or unarmed. Bractless, rarely bracteate. Leaflets ovate or oblong. Sepals connivent, permanent. Disk almost wanting. This section is essentially different from the last in habit, but in artificial characters they approach very nearly. It, however, may be distinguished by the greater number of leaflets; which vary from 7 to 13, and even to 15, instead of from 5 to 7. The flowers are also universally without bracteas; except in the *R. alpina*, *R. Sabini*, *R. Doniàna*, and, perhaps, *R. marginàta*. These having connivent permanent sepals, cannot be confounded with the preceding division; nor, on account of their disk, with the following. There is no instance of stipular prickles in the present tribe. The sepals are entire, or nearly so, unless when mentioned otherwise.

20. *R. ALPINA* Lin. The Alpine Rose.

Identification. Lin. Sp., 703; Don's Mill., 2, p. 567.

Synonymes. *R. rupéstris* Crantz. *Austr.*, 85; *R. monspeliaca* Gouan *Monsp.*, 255; *R. inermis* Mill. *Dict.*, No. 6; *R. hybrida* Vill. *Dauph.*, 3, p. 554; *R. lagenaria* Vill., l. c. p. 563; *R. biflora* Krok. *Fl. Sil.*, 2, p. 157.

Spec. Char., &c. Unarmed. Fruit elongated, pendulous. Peduncles hispid. Flowers erect, blush-colored, solitary. Fruit orange red, oblong or obovate, with long sepals, generally pendulous. Native of the Alps of Austria, hills in the south of France, Silesia, Bohemia, Dauphiné, Switzerland, &c., growing to the height of from 5 ft. to 8 ft., and flowering in June and July.

22. *R. ACICULARIS* Lindl. The needle-prickled Rose.

Identification. Lindl. Ros., p. 44; Don's Mill., 2, p. 567.

Synonyme. *R. alpina* ϵ *aculeata* Ser. in *Dec. Prod.*, 2, p. 611.

Spec. Char., &c. Tall. Prickles acicular, unequal. Leaflets glaucous, wrinkled, rather convex. Fruit rather flask-shaped, drooping. Flowers solitary, pale blush, fragrant. Fruit obovate, naked, of a yellowish orange color. Native of Siberia; growing to the height of from 6 ft. to 8 ft., and flowering in May and June.

23. *R. LUTE'SCENS* Pursh. The yellow American Rose.

Identification. Pursh. *Fl. Amer. Sept.*, vol. 2, p. 735; Lindl. Ros., p. 47; Don's Mill., 2, p. 568.

Synonyme. *R. hispida* Curt. *Bot. Mag.*, t. 1570.

Spec. Char., &c. Prickles of branches crowded, unequal, slender, reflexed; of the branchlets, small and nearly equal. Leaflets flat, glabrous, simply serrated. Flowers pale yellow. Fruit large, ovate, black. Native of North America and Siberia; growing to the height of from 4 ft. to 6 ft., and flowering in May and June. It forms a very distinct variety, or probable species, and on that account, is well deserving a place in botanical collections.

24. *R. SULPHUR'EA* Ait. The sulphur-colored-flowered Rose.

Identification. Ait. *Hort. Kew.*, 2, p. 201; Lindl. Ros., t. 77; Don's Mill., 2, p. 568.

Synonymes. *R. hemisphérica* Herm. *Diss.*, 18; *R. glaucophylla* Ehrh. *Beitr.*, 2, p. 69; *Rosa lutea flore pleno* Rai. *Hist.*, 1475. No. 31; *R. lutea* Brot. *Fl. Lus.*, 1, p. 337; the double yellow Rose.

Spec. Char., &c. Stipules linear, divaricate, dilated at the apex. Leaflets glaucous, flattish. Tube hemispherical. Stem prickles unequal, scattered. Flowers large, of a fine transparent yellow, always double. Native of the Levant; growing to the height of from 4 ft. to 10 ft., and flowering in July. This sort does not flower freely, except in open airy situations; and, if trained against a wall, exposed to the north or east rather than to the south. Its flower buds are apt to burst on one side before they expand, and consequently to become deformed; to prevent this, the blossom buds should be thinned, and care taken that they have abundance of light and air. Watering it freely in the flowering season is also found advantageous, and the shoots in general ought not to be shortened. This beautiful species is said to flower freely, if grafted on the musk cluster at 8 ft. or 10 ft. from the ground; or it will do well on the China rose. It is grown in great abundance in Italy, where its flowers produce a magnificent effect, from their large size, doubleness, and brilliant yellow color. It is one of the oldest inhabitants of our gardens, though the exact year of its introduction is unknown. "Ludovico Berthema tells us, in 1503, that he saw great quantities of yellow roses at Calicut, whence it appears probable, that both the single and double-flowered varieties were brought into Europe by the Turks; as Parkinson tells us, in a work which he dedicated to Henrietta, the queen of our unfortunate Charles I., that the double yellow rose 'was first procured to be brought to England, by Master Nicholas Lete, a worthy merchant of London, and a great lover of flowers, from Constantinople, which (as we hear) was first brought thither from Syria, but perished quickly both with him, and with all other to whom he imparted it; yet afterward it was sent to Master John de Franguerville, a merchant of London, and a great lover of all rose plants, as well as flowers, from which is sprung the greatest store that is now flourishing in this kingdom.'"

25. *R. SPINOSISSIMA* L. The most spiny, or Scotch, Rose.

Identification. Lin. Fl. Suec., 442; Sp., 491; Don's Mill., 2, p. 568.

Spec. Char., &c. Prickles unequal. Leaflets flat, glabrous, simply serrated. A dwarf compact bush, with creeping suckers. Flowers small, solitary, white or bluish-colored. Fruit ovate, or nearly round, black or dark purple. Native of Europe; plentiful in Britain. Shrub, 1 ft. to 2 ft. high; flowering in May and June.

Varieties. A great many varieties have been raised of this rose, with flowers double, semi-double, white, purple, red, and even yellow. The first double variety was found in a wild state, in the neighborhood of Perth.

26. *R. HIBERNICA* Smith. The Irish Rose.

Identification. Smith in Engl. Bot., 2196; Don's Mill., 2, p. 569.

Spec. Char., &c. Prickles unequal, slightly hooked, smaller ones bristle-formed. Leaflets ovate, acute, simply serrated, with the ribs hairy beneath. Sepals pinnate. Fruit nearly globular, smooth, as well as the peduncles. Flowers small, light bluish-colored. Fruit orange-colored. Native of Ireland, in the counties of Derry and Down, in thickets. A shrub, from 4 ft. to 6 ft. in height, and flowering from June to November.

27. *R. OXYACANTHA* Bieb. The sharp-prickled Rose.

Identification. Bieb. Fl. Taur., 3, p. 338; Don's Mill., 2, p. 569.

Spec. Char., &c. Stems very prickly. Prickles setaceous, reversed. Petioles prickly and glandular. Leaflets sharply and simply serrated, glabrous. Sepals undivided. Peduncles clothed with glandular bristles; when in fruit, reflexed. Fruit nearly globose, glabrous. Flowers red. A native of Siberia. A shrub, from 3 ft. to 5 ft. high, and flowering in June and July.

28. *R. SANGUISORBIFOLIA* Donn. The Burnet-leaved Rose.

Identification. Donn Hort. Cant., ed. 8, p. 169; Don's Mill., 2, p. 569.

Synonymes. *R. spinosissima* var. *sanguisorbifolia* Lindl. Ros., p. 51; *R. spinos.* var. *macrophylla* Ser. in Dec. Prod., 2, p. 609.

Spec. Char., &c. Tall. Prickles nearly equal. Leaflets 9—11, oblong, glabrous, simply serrated. Fruit globose, depressed, dark. Flowers white. This plant is easily distinguished from the last, by the greater number of its leaflets, the shortness of its peduncles, and by its globose depressed fruit. It is a shrub, from 3 ft. to 5 ft. high, and flowering in May and June.

29. *R. GRANDIFLORA* Lindl. The large-flowered Rose.

Identification. Lindl. Ros., p. 53; Bot. Reg., t. 888; Don's Mill., 2, p. 569.

Synonyme. *R. pimpinellifolia* Bieb. Fl. Taur., 2, p. 394.

Spec. Char., &c. Branches without bristles. Prickles nearly equal, distant. Leaflets flat, glabrous, simply serrated. Flowers white. Fruit dark. Native of Siberia; growing to the height of from 4 ft. to 6 ft. and flowering in May and June. Of this rose Dr. Lindley remarks, that it differs from *R. spinosissima*, though scarcely so much as to render it a distinct species. "However," he says, "it is too remarkable a plant to escape notice; and, if it should hereafter be reduced to *R. spinosissima*, it must stand as a distinct variety."

30. *R. MYRIACANTHA* Dec. The myriad-prickled Rose.

Identification. Dec. Fl. Fr., 4, p. 439; Don's Mill., 2, p. 569.

Synonymes. *R. parvifolia* Pall. Ross., 62?; *R. provincialis* Bieb. Fl. Taur., 1, p. 396?; *R. spinosissima* var. *myriacantha* Ser. in Dec. Prod., 2, p. 603.

Spec. Char., &c. Prickles unequal, larger ones dagger-formed. Leaflets glandular, glabrous, orbicular. Flowers white. Native of Dauphiné, and near Montpellier; growing from 1 ft. to 2 ft. high, and flowering in May and June. According to Dr. Lindley, this rose forms a diminutive shrub, with almost simple and erect shoots, resembling, in many respects, *R. spinosissima* in a stunted state; though the glands on its leaves appear sufficient to prevent the two sorts from being mistaken for each other.

31. *R. INVOLUTA* Smith. The involute-petaled Rose.

Identification. Smith in Eng. Bot., 2033; Don's Mill., 2, p. 569.

Synonyme. *R. nivâlis* Donn. *Hort Cant.*, ed. 8, p. 170.

Spec. Char., &c. Prickles very unequal, and very much crowded. Leaflets doubly serrated, pubescent. Petals convolute. Fruit prickly. Petals pale red, concave. Native of the Hebrides, in the Isle of Arran and in Glen Lyon. Shrub, 2 ft. to 3 ft. high, and flowering in June.

32. *R. REVERSA* Waldst. et Kit. The reversed-prickled Rose.

Identification. Waldst. et Kit. Hung., 3, p. 293; Don's Mill., 2, p. 569.

Spec. Char., &c. Prickles setaceous, nearly equal, reflexed. Leaves doubly serrated, pubescent. Fruit hispid. Flowers solitary, white, tinged with pink. Fruit ovate, dark purple. Native of Hungary, on the mountains of Matra, in stony places; growing to the height of from 2 ft. to 5 ft., and flowering in June and July.

33. *R. SABINI* Woods. Sabine's Rose.

Identification. Woods in Lin. Trans., 12, p. 188; Don's Mill., 2, p. 569.

Spec. Char., &c. Peduncles, calyx, fruit, and branches bristly. Prickles scattered, straightish. Leaflets doubly serrated, nearly smooth, with hairy ribs. Sepals pinnate. Flower stalks rather aggregate. Petals fine red. Fruit ovate, bright scarlet. Native of Scotland, near Dunkeld; in England, in Cumberland, Northumberland, and Yorkshire. 5 ft. to 8 ft. high, and flowering in July.

34. *R. DONIANA* Woods. Don's Rose.

Identification. Woods in Lin. Trans., 12, p. 185; Don's Mill., 2, p. 570.

Synonyme. *R. Sabini* & Lindl. *Ros.*, p. 59.

Spec. Char., &c. Peduncles bractless, bristly, as well as the globular fruit and calyx. Stem bristly and prickly like the downy petioles. Leaflets elliptical, doubly and sharply serrated, hairy on both sides. Petals spreading. Flowers pink, expanded. Segments of the calyx simple. Native of the Highlands of Scotland, particularly on the mountains of Clova, Angusshire. Shrub, 4 ft. to 5 ft. high and flowering in June and July. This rose was named in honor of Don of Forfar; and Sir Edward Smith observes of it: "It is much to be wished, that this rose should afford a permanent wreath in honor of its discoverer, one of the most indefatigable as well as accurate of botanists, who loved the science for its own sake, and braved every difficulty in its service. He infused the same spirit into his sons [two of whom, Prof. Don, and G. Don, author of Don's *Miller*, are well known in the botanical world], who are now living evidences of his knowledge, and of his powers of instruction."

V. *CENTIFOLIA* Lindl.

Derivation. From *centum*, a hundred, and *folium*, a leaf; because the species contained in this section agree in character with the hundred-leaved rose, which is so extensively double as to seem to have a hundred petals.

Sect. Char., &c. Shrubs, all bearing bristles and prickles. Peduncles bracteate. Leaflets oblong or ovate, wrinkled. Disk thickened, closing the throat. Sepals compound. This division comprises the portion of the genus *Rosa* which has most particularly interested the lover of flowers. It is probable that the earliest roses of which there are any records of being cultivated belonged to this section; but, to which particular species those of Cyrene or Mount Pangæus are to be referred, it is now too late to inquire. The attar of roses, which is an important article of commerce, is either obtained from roses belonging to this division indiscriminately, as in the manufactory at Florence, conducted by a convent of friars; or from some particular kind, as in India. It appears, from specimens brought from Chizapore by Colonel Hardwicke, that *R. damascena* is there exclusively used for obtaining the essential oil. The Persians also make use of a sort which Kæmp-

fer calls *R. shirazensis* (from its growing about Shiraz), in preference to others: this may be either *R. damascena*, or *R. gallica*, or *R. centifolia*, or perhaps *R. moschata*. The species contained in the present section are all setigerous, by which they are distinguished from the following divisions: their thickened disk and divided sepals separate them from the preceding. To the section of *Rubiginosæ* the glanduliferous sorts approach; but the difference of their glands, the size of their flowers, and their dissimilar habit, prevent their being confounded.

35. *R. DAMASCENA* Mill. The Damascus, or Damask Rose.

Identification. Mill. Dict., No. 15; Don's Mill., 2, p. 571.

Synonymes. *R. belgica* Mill. Dict., No. 17; *R. calendrum* Munch. Hausp. ex Bork. Holz. 330, Rossig. Ros., t. 8, and t. 33; *R. bifera* Poir. Suppl. 6, p. 276, Red. Ros. 1, p. 107 and p. 121; Rose à quatre Saisons.

Spec. Char., &c. Prickles unequal, large ones falcate. Sepals reflexed. Fruit elongated. Native of Syria. Flowers large, white or red, single or double. The present species may be distinguished from *R. centifolia* by the greater size of the prickles, the greenness of the bark, the elongated fruit, and the long reflexed sepals. The petals of this species, and all the varieties of *R. centifolia*, as well as those of other species, are employed indiscriminately for the purpose of making rose-water. A shrub growing from 2 ft. to 8 ft. high, and flowering in June and July. This species is extremely beautiful, from the size and brilliant color of its flowers. It is asserted by some writers to have been brought from Damascus in Syria at the time of the crusades, but there is every probability that it came from Italy, since it is the same as the *bifera* or the twice-bearing rose of the ancient Roman gardeners, and is the original type of our Remontant Roses. The Roman gardeners could have produced a certain autumnal bloom only by a sort of retarding process similar to that mentioned in our chapter on culture, for although the Damask Rose will, under peculiar circumstances, bloom in autumn of its own accord, yet it cannot always be relied upon to do so. During the early period of the French monarchy, when none of the Remontant Roses were known and this species was common, it was considered quite a phenomenon to see them appear naturally in winter. Gregory of Tours, speaking of the year 584, says, "This year many prodigies appeared and many calamities afflicted the people, for roses were seen blooming in January, and a circle was formed around the sun." And of the year 589 he says, "This year trees blossomed in autumn and bore fruit the second time, and roses appeared in the ninth month."

R. CENTIFOLIA Lin. The hundred-petaled, Provence, or Cabbage Rose.

Identification. Lin. Sp., 704; Don's Mill., 2, p. 571.

Synonymes. *R. provincialis* Mill. Dict., No. 18; *R. polyanthos* Rossig. Ros., t. 35; *R. caryophyllea* Poir. Suppl., 6, p. 276; *R. unguiculata* Desf. Cat., 175; *R. varians* Pohl Bohem., 2, p. 171.

Spec. Char., &c. Prickles unequal, larger ones falcate. Leaflets ciliated with glands. Flowers drooping. Calyxes clammy. Fruit oblong. Native of Eastern Caucasus, in groves. Flowers white or red; single, but most commonly double. This species is distinguished from *R. damascena* by the sepals not being reflexed, and the flowers having their petals curved inwards, so as, in the double state, to give the flower the appearance of the heart of a cabbage; whence the name of the cabbage rose. Its fruit is either oblong or roundish, but never elongated. From *R. gallica* it is distinguished by the flowers being drooping, and by the larger size of the prickles, with a more robust habit. A shrub, growing from 3 ft. to 6 ft. high, and flowering in June and July. When this rose becomes unthrifty from age, it is renewed by cutting off the stems close to the ground as soon as the flowers have fallen; shoots will then be produced sufficiently vigorous to furnish a beautiful and abundant bloom the following spring.

Varieties. Above 100 varieties have been assigned to this species, and classed in three divisions:

R. c. 1 provincialis Mill.; the Provence, or Cabbage Rose.

R. c. 2 muscôsa Mill., the Moss Rose.

R. c. 3 pompônia Dec., the Pomponne Rose.

According to Loudon we have made this a variety of the *centifolia*, although some authors assert it to have been found growing wild in 1735, by a gardener of Dijon, in France, who discovered it while cutting wood on a mountain near that city. Many varieties of it have been obtained, among which the most singular is the little dwarf given in the New Du Hamel as a distinct species. It does not grow more than 12 or 15 inches high and frequently perishes before blossoming.

R. c. 4 bipinnata Red. Ros., ii., p. 4, which has bipinnate leaves.

37. *R. GÁL'LICA* L. The French Rose.

Identification. Lin Sp., 704; Dec. Prod., 2, p. 603.

Synonymes. *R. centifolia* Mill. *Dict.*, No. 41; *R. sylvatica* Gater. *Mont.*, p. 94; *R. rubra* Lam. *Fl. Fr.* 3, p. 130; *R. holosericea* Rossig. *Ros.*, t. 18; *R. bégica* Brot. *Fl. Lus.*, 1, p. 338; *R. blanda* Brot., 1, c; Rose de Provins, *Fr.*; Essig Rose, *Ger.*

Spec. Char., &c. Prickles unequal, Stipules narrow, divaricate at the tip. Leaflets 5—7, coriaceous, rigid, ovate or lanceolate, deflexed. Flower bud ovate-globose. Sepals spreading during the time of the flowering. Fruit subglobose, very coriaceous. Calyx and peduncle more or less hispid with glanded hairs, somewhat viscose. A species allied to *R. centifolia* L., but with round fruit, and very coriaceous leaflets, with more numerous nerves, that are a little prominent, and are anastomosing. Native of middle Europe and Caucasus, in hedges. The flowers vary from red to crimson, and from single to double; and there is one variety with the flowers double white. The petals of some of the varieties of this rose are used in medicine, particularly that called officinal; which, though not so fragrant as those of the Dutch hundred-leaved rose, also one of the varieties of this species, are preferred for their beautiful color and their pleasant astringency. The petals of *R. gál'lica* are those which are principally used for making conserve of roses, and, when dried, for gargles: their odor is increased by drying. They are also used in common with those of *R. centifolia*, for making rose-water and attar of roses. This rose was called by old writers the red rose, and is supposed to have been the one assumed as the badge of the House of Lancaster. This, also, is one of the roses mentioned by Pliny; from which, he says, all the others have been derived. It is often confounded with the Damask rose; and is the *Rôsa damascèna* of the druggists' shops.

Variety. The varieties of this species are very numerous. One of the most distinct is—

R. g. 7 parvifolia Ser. in *Dec. Prod.*, ii., p. 664; *R. parvifolia* Ehr. *Beitr.*, vi., p. 97, *Ker* in *Bot. Reg.*, t. 452, *Don's Mill.*, ii., p. 573; *R. burgundiaca* Rossig. *Ros.*, t. 4; *R. remensis* Desf. *Cat.*, t. 175, and our fig. 494. *The Burgundy Rose.*—A dwarf compact shrub, with stiff, ovate acute, and sharply serrated small leaflets, and very double purple flowers, which are solitary, and have some resemblance, in form and general appearance, to the flower of a double-flowered Asiatic ranunculus. Besides the botanical varieties, given in *Don's Miller*, there are 19 in the *Nouveau Du Hamel*.

38. *R. PULCHÉ'LLA* Willd. The neat Rose.

Identification. Willd. *Enum.*, p. 545; *Don's Mill.*, 2, p. 573.

Spec. Char., &c. Ovaries roundish-obovate. Peduncles and calyxes beset with glandular bristles. Petioles clothed with glandular pubescence, unarmed. Cauline prickles scattered. Native country unknown. Allied to *R. turbinata*; but the stems are much smaller; the flowers also smaller; and the form of the ovaries is different. Perhaps this is the rose de Meaux of the gardens, or some variety of *R. gál'lica*. It is a shrub, 2 ft. high, and produces its flowers in June and July.

VI. VILLO'SÆ.

Derivation. From *villosus*, villous; in allusion to the hairiness of the species.

Sect. Char. Surculi erect. Prickles straightish. Leaflets ovate or oblong, with diverging serratures. Sepals connivent, permanent. Disk thickened, closing the throat. This division borders equally close

upon those of *Caninæ* and *Rubiginosæ*. From both it is distinguished by its root-suckers being erect and stout. The most absolute marks of difference, however, between this and *Caninæ*, exists in the prickles of the present section being straight, and the serratures of the leaves diverging. If, as is sometimes the case, the prickles of this tribe are falcate, the serratures become more diverging. The permanent sepals are another character by which this tribe may be known from *Caninæ*. *Rubiginosæ* cannot be confounded with the present section, on account of the unequal hooked prickles and glandular leaves of the species. Roughness of fruit, and permanence of sepals, are common to both.

39. *R. TURBINA'TA* Ait. The turbinate-calyxed, or Frankfort Rose.

Identification. Ait. Hort. Kew., ed 1, v. 2, p. 206; Dec. Prod., 2, p. 603; Don's Mill., 2, p. 576.

Synonymes. *R. campanulata* Ehrh. Beitr., 6, p. 97; *R. francofortiana* Munch. Haust., 5, p. 24; *R. francfurtensis* Rossig. Ros., t. 11.

Spec. Char., &c. Stem nearly without prickles. Branches smooth. Leaflets 5—7, ovate-cordate, large, wrinkled in a bullate manner, serrate, approximate, a little villous beneath. Stipules large, clasping the stem or branch. Flowers disposed subcorymbosely, large, violaceous red. Peduncles wrinkled and hispid. Calyx turbinate, smoothish. Sepals undivided, subspathulate. Flowers large, red, and loose; probably a native of Germany; growing to the height of from 4 ft. to 6 ft., and flowering in June and July.

40. *R. VILLO'SA* Lin. The villous-leaved Rose.

Identification. Lin. Sp., 704; Don's Mill., 2, p. 576.

Synonymes. *R. mollis* Smith in Eng. Bot., t. 2459; *R. tomentosa* β Lindl. Ros., p. 77; *R. heterophylla* Woods in Lin. Trans., 12, p. 195; *R. pulchella* Woods 1, c., p. 196; *R. pomifera* Herm. Diss., 16.

Spec. Char., &c. Leaflets rounded, bluntish, downy all over. Fruit globose, rather depressed, partly bristly. Sepals slightly compound. Flowers red or pink. This is a very variable plant. Branches without bristles. It is a native of Europe, in hedges; in Britain, in bushy rather mountainous situations, in Wales, Scotland, and the north of England, growing to the height of 5 ft. or 6 ft., and flowering in July.

41. *R. GRA'CILIS* Woods. The slender Rose.

Identification. Woods in Lin. Trans., 12, p. 186; Don's Mill., 2, 570.

Synonyme. *R. villosa* Smith, in Eng. Bot., t. 583, excluding the synonyme and the fruit.

Spec. Char., &c. Peduncles usually in pairs, bristly, often bracteate. Branches, fruit, and calyx bristly. Larger prickles curved, usually twin. Leaflets doubly serrated, hairy on both sides. Petals slightly concave, of a pale pink. Fruit globular. Segments of the calyx simple. Growing to the height of 8 ft. or 10 ft., and flowering in July.

42. *R. TOMENTO'SA* Smith. The tomentose, or woolly-leaved Rose.

Identification. Smith Fl. Brit., 539; Eng. Bot., 990; Don's Mill., 2, p. 576.

Synonymes. *R. villosa* Ehrh. Arb., p. 45, *Du Roi Harbk.*, 2, p. 341, *Fl. Dan.*, t. 1453; *R. mollissima* Bork. Holz., p. 307; *R. dubia* Wibel. Wirth., p. 263; *R. villosa* β Huds., 219.

Spec. Char., &c. Leaflets ovate, acute, more or less downy. Fruit elliptical, hispid. Sepals pinnate. Prickles slightly curved. Petals white at the base. Native of Europe, in hedges and thickets; plentiful in Britain; growing to the height of 6 ft., and flowering in June and July.

43. *R. SHERA'RDII* Davies. Sherard's Rose.

Identification. Davies' Welsh Bot., 49; Don's Mill., 2, p. 576.

Synonymes. *R. subglobosa* Smith Eng. Fl., 2, p. 334; *R. tomentosa* var. ϵ and η Woods in Lin. Trans., 12, p. 201.

Spec. Char., &c. Prickles conical, hooked, compressed. Leaflets elliptical, acute, downy on both surfaces. Sepals pinnate. Fruit globular, abrupt, rather bristly. Found near Kingston upon Thames, near Tunbridge Wells, and on the Downs in Kent, in Cambridgeshire, and in the Isle of Angelsea. Peduncles from 1—8, the more numerous the shorter, beset with glandular bristles. Fruit large, and globular. A shrub, growing to the height of 6 ft., and flowering in June and July.

44. *R. SYLVESTRIS* Lindl. The Wood Rose.

Identification. Lindl. Syn. Brit. Fl., p. 101; Don's Mill., 2, p. 576.

Synonyme. *R. tomentosa sylvestris* Woods.

Spec. Char., &c. Stem erect, colored, flexuous. Prickles hooked. Leaflets oblong, acute, hoary on both sides. Sepals diverging, deciduous before the fruit is ripe. Fruit elliptic, bristly. Native of Oxfordshire, in hedges. Growing to the height of 6 ft. or 8 ft., and flowering in June and July.

45. *R. MO'LLIS* Led. The soft-leaved Rose.

Identification. Led. ex Spreng. Syst., 2, p. 551; Don's Mill., 2, p. 577.

Synonyme. *R. Ledebourii* Spreng. Syst., 2, p. 551.

Spec. Char., &c. Ovaries ovate, glaucous, and prickly, as well as the peduncles. Branches unarmed and pubescent, as well as the petioles. Leaflets obtuse, doubly serrated, villous on both surfaces. Native of Caucasus; growing to the height of from 4 ft. to 6 ft., and flowering in June and July.

46. *R. A'LEA* Lin. The common white Rose.

Identification. Lin. Sp., 805; Lawr. Ros., t. 23, 25, 32, 37; CEd. Fl. Dan., t. 1215; Red. Ros. 1, p. 97, and p. 17; Don's Mill., 2, p. 577.

Synonyme. *R. usitatissima* Gat. Montaub., t. 94.

Spec. Char., &c. Leaflets oblong, glaucous, rather naked above, simply serrated. Prickles straightish or falcate, slender or strong, without bristles. Sepals pinnate, reflexed. Fruit unarmed. Native of Piedmont, Cochinchina, Denmark, France, and Saxony. Flowers large, either white, or of the most delicate blush color, with a grateful fragrance. Fruit oblong, scarlet, or blood-colored. A shrub, growing from 4 ft. to 10 ft. in height, and flowering in June and July.

VII. RUBIGINOSÆ Lindl.

Derivation. From *rubiginosus*, rusty; the leaves of the species being usually furnished with rust-colored glands beneath.

Sect. Char., &c. Prickles unequal, sometimes bristle-formed, rarely wanting. Leaflets ovate or oblong, glandular, with diverging serratures. Sepals permanent. Disk thickened. Root-shoots arched. The numerous glands on the lower surface of the leaves will be sufficient to prevent anything else being referred to this section; and although *R. tomentosa* has sometimes glandular leaves, the inequality of the prickles of the species of *Rubiginosæ*, and their red fruit, will clearly distinguish them. This division includes all the eglantine, or sweet-briar roses.

47. *R. LU'TEA* Dodon. The yellow Eglantine Rose.

Identification. Dodon. Pempt., 187; Mill. Dict., No. 11; Lawr. Ros., t. 12; Curt. Bot. Mag., t. 363; Don's Mill., 2, p. 577.

Synonymes. *R. Eglanteria* Lin. Sp. 703, Red. Ros., 1, p. 69; *R. foetida* Herm. Diss., 18; *R. chlorophylla* Ehrh. Beitr., 2, p. 69; *R. cœrea* Rossig. Ros. t. 2.

Spec. Char., &c. Prickles straight. Leaflets deep green. Sepals nearly entire, setigerous. Petals flat, concave. Flowers deep yellow, large, cupshaped, solitary. Fruit unknown. A shrub, a native of Germany and the south of France; growing from 3 ft. to 4 ft. high, and flowering in June.

48. *R. RUBIGINOSA* Lin. The rusty-leaved Rose, Sweet-Briar, or Eglantine.

Identification. Lin. Mant., 2, p. 594; Dec. Prod., 2, p. 604; Don's Mill., 2, p. 577.

Synonymes. *R. suavifolia* Lightf. *Scot.*, 1, p. 261, *Fl. Dan.*, t. 870; *R. Eglantèria* Mill. Dict. No. 4, *Lin. Sp.*, edit. 1, p. 491; *R. agrèstis* Savi *Fl. Pis.*, p. 475; *R. rubiginosa parviflora* Rau. *Enum.*, 135.

Spec. Char., &c. Prickles hooked, compressed, with smaller straighter ones interspersed. Leaflets elliptical, doubly serrated, hairy, clothed beneath with rust-colored glands. Sepals pinnate, and bristly, as well as the peduncles. Fruit obovate, bristly toward the base. Native throughout Europe, and of Caucasus. In Britain, in bushy places, on a dry gravelly or chalky soil. Leaves sweet-scented when bruised, and resembling the fragrance of the Pippin Apple. When dried in the shade and prepared as a tea, they make a healthful and pleasant beverage. This species is extensively used in Europe for the formation of Tea Roses, and it is estimated that two hundred thousand are budded annually in the vicinity of Paris alone. The species is very vigorous, but does not seem to answer well in our hot sun. The change from its native shaded thickets and hedges is too much for its tall exposed stem and although the stock may not itself die yet the variety budded upon it will frequently perish in two or three years. This is doubtless partly owing to a want of analogy between the stock and the variety given it for nourishment, but that the former is the prominent evil is evident by the fact that dwarfs of the same stock, where the stem is shaded by the foliage, flourish much better. The Eglantine, in favored situations, is very long-lived. A French writer speaks of one in which he had counted one hundred and twenty concentric layers, making thus its age the same number of years. Another writer speaks of an Eglantine in Lower Saxony, whose trunk separated into two very strong branches, twenty-four feet high and extending over a space of twenty feet. At the height of seven feet, one of the branches is nearly six inches and the other four inches in circumference. There is a tradition that it existed in the time of Louis the Pious, King of Germany in the ninth century. This however must evidently be received with some allowance. Flowers pink. Fruit scarlet, obovate or elliptic. A shrub, growing from 4 ft. to 6 ft. in height, and flowering in June and July.

49. *R. SUAVEOLENS* Pursh. The sweet-scented Rose, American Sweet-Briar, or Eglantine.

Identification. Pursh *Fl. Amer.* Sept. vol. 1, p. 346; Don's *Mill.*, 2, p. 578.

Synonymes. *R. rubiginosa* and *Eglantèria* of the Americans, *Rafin. Ros. Amer.* in *Ann. Phys.*, 5, p. 518.

Spec. Char., &c. Prickles scattered, straight. Petioles beset with glandular bristles. Leaflets ovate, serrated, sparingly glandular beneath. Flowers usually solitary. Peduncles bracteate. Fruit ovate. Native of North America. Leaves sweet-scented when bruised. Flowers pink. Sepals entire. A shrub, growing to the height of 5 ft. or 6 ft., and flowering in June and July.

50. *R. MICRANTHA* Sm. The small-flowered Rose, or Sweet-Briar.

Identification. Smith in *Eng. Bot.*, t. 2490; Don's *Mill.*, 2, p. 578.

Synonyme. *R. rubiginosa* β *micrantha* Lindl. *Ros.*, p. 87, with erroneous synonymes.

Spec. Char., &c. Prickles hooked, scattered, nearly uniform. Leaflets ovate, doubly serrated, hairy, glandular beneath. Sepals pinnate. Fruit elliptic, rather bristly, contracted at the summit. Stems straggling. Native of Britain, in hedges and thickets, chiefly in the south of England. Leaves sweet-scented. Flowers small, pale red. A shrub, from 4 ft. to 5 ft. in height, flowering in June and July.

51. *R. SEPIUM* Thuil. The Hedge Rose, or Briar.

Identification. Thuil. *Fl. Per.* 252; Borr. in *Eng. Bot. Suppl.*, t. 2653; Don's *Mill.*, 2, 578.

Synonymes. *R. helvética* and *R. myrtifolia* Hall; *R. canina* β *Dec. Fl. Fr.*, ed. 3, No. 3617; *R. agrèstis* Savi *Fl. Pis.*, 1, p. 474; *R. biserrata*, *R. macrocarpa*, and *R. stipularis* Mer. *Fl. Par.*, 190, ex *Desv.*, f. 75.

Spec. Char., &c. Prickles slender. Branches flexuous. Leaflets shining, acute at both ends. Flowers usually solitary. Fruit polished. Sepals pinnate, with very narrow segments. Native of Europe in hedges; in England, near Bridport, Warwick-

shire. Flowers small, pink. A shrub, growing from 4 ft. to 6 ft. in height, and flowering in June and July.

52. *R. IBERICA* Stev. The Iberian Rose.

Identification. Stev. in Bieb. Fl. Taur. Suppl., 343; Don's Mill., 2, p. 578.

Spec. Char., &c. Cauline prickles scattered, hooked, dilated at the base. Petioles glandular and prickly. Leaflets broad, ovate, glandularly biserrated, and beset with glands on both surfaces. Fruit ovate, smooth, or with a few bristles, as well as the peduncles. Native of Eastern Iberia, about the town of Kirzchinval. Very nearly allied to *R. pulverulenta*, according to Bieberstein. A shrub, growing from 4 ft. to 6 ft. in height, and flowering in June and July.

53. *R. GLUTINOSA* Smith. The clammy Rose, or Briar.

Identification. Smith. Fl. Græc. Prod., 1, p. 348; Fl. Græc., t. 482; Don's Mill., 2, p. 578.

Synonymes. *R. rubiginosa cética* Red. Ros., 1, p. 93, and p. 125, t. 47; *R. rubiginosa sphaerocarpa* Deuss. Journ. Bot., 1813, t. 118, Cupan. Pamph., ed. 1, t. 61.

Spec. Char., &c. Branches pilose. Prickles numerous, falcate. Leaflets roundish, coarsely serrated, hoary, glandular, and viscid on both surfaces. Fruit and peduncles beset with stiff bristles. Flowers pale blush. Sepals subpinnate. Fruit scarlet. Native of Mount Parnassus, and of Sicily and Candia, on the mountains; growing to the height of 2 ft. or 3 ft., and flowering in June and July.

54. *R. KLUKII* Bess. Kluki's Rose, or Sweet-Briar.

Identification. Bess. Cat. Hort. Crem., 1816, Suppl., 4, p. 19; Bieb. Fl. Taur. Suppl., 343; Don's Mill., 2, p. 579.

Synonymes. *R. rubiginosa* Bieb. Fl. Taur., No. 979, exclusive of the synonymes; *R. floribunda* Stev.; *R. balsamea* Bess.

Spec. Char., &c. Cauline prickles strong, compressed, dilated at the base, recurved. Petioles villous and prickly. Leaflets small, elliptic, acute, sharply biserrated, with the serratures glandular, villous above, but rusty and glandular beneath. Peduncles and fruit beset with glandular bristles. Flowers pink. Allied to *R. rubiginosa*, according to Bieberstein; but, according to Besser, to *R. alba*. Native of Tauria; growing to the height of 5 ft., or 6 ft. and flowering in June and July.

55. *R. MONTEZUMÆ* Humb. Montezuma's Rose, or Briar.

Identification. Humb. et Bonpl. in Red. Ros., 1, p. 55; Don's Mill., 2, p. 579.

Spec. Char., &c. Petioles armed with little hooked prickles. Branches unarmed. Leaflets ovate, sharply serrated, glabrous. Flowers solitary, terminal. Tube of calyx elliptic, and as well as the peduncles, glabrous. Native of Mexico, on the chain of porphyry mountains which bound the valley of Mexico on the north, at the elevation of 1416 toises, on the top of Cerro Ventosa, near the mine of San Pedro. Flowers pale red. Sepals compound, dilated at the end. A shrub growing to the height of from 4 ft. to 6 ft., and flowering in June and July.

VIII. CANTINE Lindl.

Derivation. From *caninus*, belonging to a dog; because *R. canina* is commonly called the dog rose. The name is applied to this section, because all the species contained in it agree in character with *R. canina*.

Sect. Char., &c. Prickles equal, hooked. Leaflets ovate, glandless or glandular, with the serratures conniving. Sepals deciduous. Disk thickened, closing the throat. Larger suckers arched.

56. *R. CAUCASÆA* Pall. The Caucasian Dog Rose.

Identification. Pall. Ross., t. 11; Lindl. Ros., p. 97; Don's Mill., 2, p. 579.

Synonymes. *R. leucantha* Bieb. Fl. Taur. Suppl., 351.?

Spec. Char. &c. Prickles strong, recurved. Leaflets soft, ovate. Calyx and peduncles hispid. Sepals simple. Fruit smooth. Flowers large, growing in bunches, white or pale red. A shrub, growing to the height of from 10 ft. to 12 ft., and flowering in June and July. This species, as grown in the collection of Loddiges, at London, is of a robust habit, with glaucous leaves, flowering and fruiting freely. The plant is a useful one for the filling up of large shrubberies.

57. *R. CANINA* Lin. The common Dog Rose.

Identification. Lin. Sp., 704; Don's Mill., 2, p. 579.

Synonymes. *R. dumalis* Bechst. *Forstb.*, 241, and 939, ex *Rau*; *R. andegavensis* *Bat. Fl. Main. et Loir.*, 189, *Red. Ros.*, 2, p. 9, t. 3; *R. glauca* *Lois. in Desv. Journ.*; *R. arvensis* *Schrank Fl. Mon.*; *R. glaucescens* *Mer. Par.*; *R. nitens* *Mer.*, 1, c; *R. tenerriffensis* *Donn Hort. Cant.*, ed. 8, p. 169; *R. senticosa* *Achar. Acad. Handl.*, 34 p. 91, t. 3.

Spec. Char., &c. Prickles strong, hooked. Leaflets simply serrated, pointed, quite smooth. Sepals pinnate. Fruit ovate, smooth, or rather bristly, like the aggregate flower stalks. Native throughout Europe, and the north of Africa; plentiful in Britain, in hedges, woods, and thickets. Flowers rather large, pale red, seldom white. Fruit ovate, bright scarlet, of a peculiar and very grateful flavor, especially if made into a conserve with sugar. The pulp of the fruit, besides saccharine matter, contains citric acid, which gives it an acid taste. The pulp, before it is used, should be carefully cleared from the nuts or seeds. A shrub, growing to the height of 6 ft. or 10 ft., and flowering in June and July.

58. *R. FOERSTERI* Sm. Forster's Dog Rose.

Identification. Smith Eng. Fl., 2, p. 302; Borr. in Eng. Bot. Suppl., 2611; Don's Mill., 2, p. 580.

Synonyme. *R. collina* β and γ , *Woods in Lin. Trans.*, 12, p. 392.

Spec. Char., &c. Prickles scattered, conical, hooked. Leaflets simply serrated, smooth above, but hairy on the ribs beneath. Sepals doubly pinnate. Fruit elliptical, smooth, like the aggregate flower stalks. A native of Europe, in hedges; plentiful in England. Flowers pale red. A shrub, growing to the height of from 6 ft. to 8 ft.; flowering in June and July.

59. *R. DUMETORUM* Thuill. The Thicket Dog Rose.

Identification. Thuill. Fl. Par., 250; Bor. in Eng. Bot. Suppl., t. 2610; Don's Mill., 2, p. 580.

Synonymes. *R. leucantha* β *acutifolia* *Bast. in Dec. Fl. Fr.*, 5, p. 535; *R. sépium* *Borkh. ex Rau. Enum.*, 79; *R. solstitialis* *Bess. Prim. Fl. Gall.*, 324; *R. corymbifera* *Gmel. Fl. Bad. Als.*, 2, p. 427.

Spec. Char., &c. Prickles numerous, scattered, hooked. Leaflets simply serrated, hairy on both surfaces. Sepals pinnate, deciduous. Peduncles aggregate, slightly hairy. Fruit elliptical, smooth, as long as the bracteas. Native of Europe, in hedges; and found, in England, in the southern counties, but seldom in any abundance. Flowers reddish. A shrub, growing from 4 ft. to 6 ft. in height, and flowering in June and July.

60. *R. BRACTEASCENS* Woods. The bractescent Dog Rose.

Identification. Woods in Lin. Trans., 12, p. 216; Don's Mill. 2, p. 580.

Spec. Char. &c. Prickles aggregate, hooked. Leaflets ovate, almost simply serrated, downy beneath. Bracteas rising much above the fruit. Sepals pinnate, falling off. Peduncles aggregate, occasionally rather hairy. Fruit globose, smooth. Native of England, in hedges, about Ulverton, Lancashire; and Ambleton, Westmoreland. Flowers flesh-colored. A shrub, 6 ft. to 7 ft. high, and flowering in June and July.

61. *R. SARMENTACEA* Swartz. The sarmentaceous Dog Rose.

Identification. Swartz MSS.; Woods in Lin. Trans., 12, p. 213; Don's Mill., 2, p. 580.

Synonymes. *R. glaucophylla* *Winch Geogr. Distrib.*, 45; *R. canina* *Roth Fl. Germ.*, 2, p. 560.

Spec. Char., &c. Prickles hooked. Leaflets ovate, doubly serrated, smooth, glandular. Peduncles aggregate, smooth or minutely bristly. Sepals pinnate, deciduous. Fruit broadly elliptic, naked. Native of Europe, common in hedges and bushy places; plentiful in Britain. Flowers pink, and fragrant. Fruit scarlet; as grateful to the palate, probably, as that of *R. canina*, with which this equally common plant is generally confounded. A shrub, 8 ft. to 10 ft. high; flowering in June and July.

62. *R. CÆSIA* Sm. The grey Dog Rose.

Identification. Smith Eng. Bot., t. 2367; Don's Mill., 2, p. 580.

Synonymes. *R. canina pubescens* *Afz. Ros. Suec. Tent.*, 1, p. 2; *R. canina* ζ *cæsia* *Lindl. Ros.*, p. 99.

Spec. Char., &c. Prickles hooked, uniform. Leaflets elliptical, somewhat doubly serrated, glaucous, hairy beneath, without glands. Sepals distantly pinnate, deciduous. Flower stalks smooth, solitary. Fruit elliptical, smooth. Native of Scotland, in the Highland valleys, but rare; at Taymilt, in Mid-Lorn, Argyleshire; and in Strath Tay, between Dunkeld and Aberfeldie, and by the side of Loch Tay. Flowers generally of a uniform carnation hue, but occasionally white. A shrub, from 4 ft. to 5 ft. in height; flowering in July.

63. *R. BO'RRERI* Woods. *Borrer's Dog Rose*.

Identification. Woods in *Lin. Trans.*, 12, p. 210; Don's *Mill.*, 2, p. 580.

Synonymes. *R. dumetorum* Smith in *Eng. Bot.*, t. 2579; *R. rubiginosa* & Lindl. *Ros.*, p. 89; *R. rubiginosa inodora* Hook. *Lond.*, t. 117; *R. sepium* Børkh. ex Rau. *Enum.* 90? but not of Thuill.; *R. affinis* Rau. *Enum.*, 79; *R. uncinella* β Besser *Enum.*, 64?

Spec. Char., &c. Prickles hooked. Leaflets ovate, doubly serrated, hairy, without glands. Sepals pinnate, often doubly pinnate, deciduous. Flower stalks aggregate, hairy. Fruit elliptical, smooth. Native of Britain, in hedges and thickets. Flowers pale red. Fruit deep scarlet. A shrub, growing from 6 ft. to 10 ft. in height; flowering in June and July.

64. *R. RUBRIFOLIA* Vill. The red-leaved *Dog Rose*.

Identification. Vill. *Dauph.*, 3, p. 549; Don's *Mill.*, 2, p. 581.

Synonymes. *R. multiflora* Reyn. *Act. Laus.*, 1, p. 70. t. 6; *R. rubicunda* Hall. *Fil. in Roem. Arch.*, 3, p. 376; *R. lùrida* Andr. *Ros.*; *R. cinnamomea* γ *rubrifolia* Red. *Ros.*, 1, p. 134.

Spec. Char., &c. Prickles small, distant. Leaflets ovate, and, as well as the branches, glabrous, opaque, discolored. Sepals narrow, entire. Fruit ovate, globose, smooth. Flowers corymbose. Peduncles smooth. Native of Dauphiné, Austria, Savoy, Pyrenees, and Auvergne, in woods. Stems red. Leaves red at the edges. Flowers small, deep red. Sepals narrow, longer than the petals. A shrub, growing to the height of 5 ft. or 6 ft., and flowering in June and July; and producing a pleasing effect in a shrubbery, from the pinkness of its foliage. At the funeral of Villars, who first named and described this rose, branches and flowers of it were cut and strewed over his grave.

65. *R. INDICA* L. The Indian, or common *China Rose*.

Identification. *Lin. Sp.*, 705; Don's *Mill.*, 2, p. 581.

Synonymes. *R. sinica* *Lin. Syst. Veg.*, ed. 13, p. 393; *R. semperflorens carnea* *Ros. sig. Ros.*, t. 19; *R. indica chinensis semiplena* Ser. *Mel.*, 1, p. 31; *R. reclinata flore submultiplici* Red. *Ros.*, p. 79; the monthly Rose, the blush China Rose, the Tea-scented Rose; *Rosier Indien*, *Rose Thé Fr.*; *Indische Rose*, *Ger.*

Spec. Char., &c. Stem upright, whitish, or green, or purple. Prickles stout, falcate, distant. Leaflets 3–5; ovate-acuminate, coriaceous, shining, glabrous, serrulate; the surfaces of different colors. Stipules very narrow, connate with the petiole, almost entire, or serrate. Flowers solitary, or in panicles. Stamens bent inward. Peduncle sub-articulate, mostly thickened upward, and with the calyx smooth, or wrinkled and bristly. Native of China, near Canton. Flowers red, usually semi-double. Petioles setigerous and prickly. Petals obcordate. A shrub, growing to the height of from 4 ft. to 20 ft., and flowering throughout the year.

Varieties. There are numerous varieties of this beautiful rose cultivated in England; but the garden varieties of it are very generally confounded with those of *R. semperflorens*. The following are quite distinct; and may each be considered the type of a long list of subvarieties.

R. i. 2 Noisettiana Ser. in *Dec. Prod.*, 2, p. 600, Don's *Mill.*, 1, p. 581. The *Noisette Rose*. Stem firm, and, as well as the branches, prickly. Stipules nearly entire. Flowers paniced, very numerous, semi-double, pale red. Styles exerted. This well-known and very beautiful rose is almost invaluable in a shrubbery, from its free and vigorous growth, and the profusion of its flowers, which are continually being produced during the whole summer.

R. i. 3 odoratissima Lindl. *Ros.*, p. 106, *Bot. Reg.*, t. 864, Don's *Mill.*, ii., p. 582; *R. odoratissima* Swt. *Hort. Sub. Lond.*; *R. indica fragrans* Red. *Ros.*, i., p. 6. t. 19; the sweetest, or tea-scented, *China Rose*; *Rose à Odeur de Thé, Fr.*; has semi-

double flowers, of a most delicious fragrance, strongly resembling the scent of the finest green tea. There are numerous subvarieties.

66. *R. SEMPERFLORENS* Curt. The ever-flowering China Rose.

Identification. Curt. Bot. Mag., t. 284; Smith Exot. Bot. 2, p. 91; Jacq. Schönbr., 3, p. 281; Don's Mill., 2, p. 582.

Synonymes. *R. diversifolia* Vent. Cels., t. 35; *R. bengalensis* Pers. Ench., 2, p. 50; *R. indica* Red. Ros., 1, p. 49, t. 13, p. 123, t. 46, and 2, p. 37, t. 16.

Spec. Char., &c. Branches dark green, armed with scattered, compressed, hooked prickles, and a very few glands. Leaflets 3—5, ovate-lanceolate, crenate-serrated, shining above, but glaucous and slightly setigerous beneath. Sepals compound, narrow. Fruit spherical. Native of China. Flowers solitary, single, or semi-double, deep crimson. There are some very splendid varieties of this species, with semi-double crimson flowers, in our gardens; and the French appear to have some others still more beautiful, which have not yet been imported. A shrub, growing from 8 ft. to 10 ft. in height, and flowering throughout the year. For this beautiful rose we are indebted to Gilbert Slater, Low-Layton, Essex, a gentleman to whose memory a genus has not yet been devoted, though he was the means of introducing several of our finest plants.

67. *R. LAWRENCEANA* Swt. Lawrence's China Rose.

Identification. Sweet Hort. Suburb; Lindl. Ros., p. 110; Don's Mill., 2, p. 582.

Synonymes. *R. semperflorens minima* Sims Bot. Mag., t. 1762; *R. indica* var. *a acuminata* Red. Ros., 1, p. 53; *R. indica Lawrenceana* Red. Ros., 2, p. 38.

Spec. Char., &c. Dwarf. Prickles large, stout, nearly straight. Leaflets ovate, acute, finely serrated. Petals acuminate. Native of China. Flowers small, single or semi-double, pale blush. A shrub, 1 ft. in height, which flowers throughout the year. The beautiful little plants called fairy roses are nearly all varieties of *R. Lawrenceana*; and they are well worthy of culture, from their extreme dwarfness (often flowering when not more than six inches high), and the beautiful color of their miniature rose-buds, the petals of which appear of a much darker hue than those of the expanded flower.

IX. *SYSTYLÆ* Lindl.

Derivation. From *sun*, together, and *stulos*, a style; in reference to the styles being connected.

Sect. Char. Styles cohering together into an elongated column. Stipules adnate. The habit of this section is nearly the same as that of the last division. The leaves are frequently permanent.

68. *R. SYSTYLA* Bat. The connate-style Rose.

Identification. Bat. Fl. Main. et Loir. Suppl., 31; Don's Mill., 2, p. 582.

Synonymes. *R. collina* Smith in Eng. Bot., t. 1895; *R. stylösa* Desv. Journ. Bot., 2, p. 317; *R. brevistyla* Dec. Fl. Fr. Suppl., p. 537; *R. bibracteata* Dec., 1 c.; *R. systyla* *a ovata* Lindl. Ros., p. 111.

Spec. Char., &c. Shoots assurgent. Prickles strong, hooked. Peduncles glandular. Sepals pinnate, deciduous. Styles smooth. Floral receptacle conical. Native of France and England, in hedges and thickets; common in Sussex; at Walthamstow, Quendon, and Clapton, near London; at Dunnington Castle, Berkshire; near Penshurst, Kent; and Hornsey, Middlesex; hills in the south of Scotland. Flowers fragrant, pink or almost white. Fruit ovate-oblong. A shrub, growing from 8 ft. to 12 ft. in height, and flowering from May to July. There are several varieties, but they do not differ materially in appearance from the species.

69. *R. ARVENSIS* Huds. The Field Rose.

Identification. Huds. Fl. Angl., ed. 1, p. 192, according to Lindl. Ros., Mon; Lin. Mant., p. 245; Dec. Prod., 2, p. 596.

Synonymes. *R. sylvestris* Hem. Diss., p. 10; *R. scandens* Mench. Weiss. Pl., p. 118; *R. herpérodon* Ehrh. Beitr., 2, p. 69; *R. Hålleri* Krok. Siles, 2, p. 150; *R. füsca* Mench. Mett., p. 683; *R. sérpens* Ehrh. Arbor., p. 35; *R. sempervirens* Rossig. Ros; *R. répens* Gmel. Fl. Bad. Als. 2, p. 415, Jacq. Fragm., p. 69, t. 104; *R. rampans* Reyn. Mém. Laus. 1, p. 69, t. 5.

Spec. Char., &c. Shoots cord-like. Prickles unequal and falcate. Leaves deciduous, and composed of 5—7 glabrous, or indistinctly ciliated, leaflets, glaucescent beneath. Stipules diverging at the tip. Flowers solitary or globose. Sepals almost entire, short. Styles cohering into an elongated glabrous column. Fruit ovate, or ovate-globose, coriaceous, crimson, glabrous, or a little hispid, as well as the peduncles. In open situations, a trailing plant, sometimes rooting at the joints; but, in hedges, and among bushes, a climber by elongation; reaching to their tops, and covering them with tufts of foliage and flowers; the leaves remaining on late in the season; and the fruit often remaining on all the winter. The shoots are, in general, feeble, much divided, and entangled; and they generally produce, here and there, rugged excrescences, which readily take root. Hence by budding the more rare sorts on the shoots, a little above these excrescences, and, after the buds have united, cutting off a portion of the shoot containing the excrescence at one end, and the inoculated bud at the other, and putting in these portions as cuttings, different varieties may be propagated with expedition and ease.

R. a. 2 *ayresii* Ser. *R. capreolata* Neill in *Edin. Phil. Journ.*, No. 3, p. 102. Cultivated in British gardens under the name of the Ayrshire Rose. Prickles slender, very acute. Leaflets ovate, sharply serrate, thin, nearly of the same color on both surfaces. Peduncles hispid with glanded hairs, or wrinkled. A vigorous-growing climber, producing shoots sometimes 20 ft. in length in one season, and flowering profusely from the middle of May to the middle of September. One of the hardest of climbing roses, and particularly useful for covering naked walls, or unsightly roofs. It is supposed by some to be of American origin, and to have been introduced into Ayrshire by the Earl of Loudon.

70. *R. (A.) SEMPERVIRENS* Lin. The evergreen (Field) Rose.

Identification. Lin. Sp., 704; Dec. Prod., 2, p. 597; Don's Mill., 2, p. 583.

Synonymes. *R. scândens* Mill. *Dict.*, No. 8; *R. balearica* Desf. *Cat. Pers. Ench.*, 2, p. 49; *R. atrovirens* Viv. *Fl. Ital.*, 4, t. 6; *R. sempervirens globosa* Red. *Ros.*, 2, with a fig.; *R. sempervirens* var. *a scândens* Dec. *Fl. Fr.*, 5, p. 533.

Spec. Char., &c. Evergreen. Shoots climbing. Prickles pretty equal, falcate. Leaves of 5—7 leaflets, that are green on both sides, coriaceous. Flowers almost solitary, or in corymbs. Sepals nearly entire, longish. Styles cohering into an elongate pilose column. Fruit ovate or ovate-globose, orange-colored. Peduncles mostly hispid with glanded hairs. Closely allied to *R. arvensis*, but differing in its being evergreen, in its leaves being coriaceous, and in its stipules being subfalcate, and more acute at the tip. Native of France, Portugal, Italy, Greece, and the Balearic Islands. A climbing shrub, flowering from June to August. Used for the same purposes as the Ayrshire rose; from which it differs in retaining its leaves the greater part of the winter, and in its less vigorous shoots. This species is well adapted for *rose carpets* made by pegging down its long flexible shoots. It glossy, rich foliage forms, in this way, a beautiful carpet of verdure enameled with flowers.

71. *R. MULTIFLORA* Thunb. The many-flowered Rose.

Identification. Thunb. *Fl. Jap.*, 214; Dec. Prod., 2, p. 593; Don's Mill., 2, p. 583.

Synonymes. *R. flava* Donn. *Hort. Cant.*, ed. 4, p. 121; *R. florida* Poir. *Suppl.*; *R. diffusa* Roxb.

Spec. Char., &c. Branches, peduncles, and calyxes tomentose. Shoots very long. Prickles slender, scattered. Leaflets 5—7, ovate-lanceolate soft, finely wrinkled. Stipules pectinate. Flowers in corymbs, and, in many instances, very numerous. Buds ovate globose. Sepals short. Styles protruded, incompletely grown together into a long hairy column. A climbing shrub, a native of Japan and China; and producing a profusion of clustered heads of single, semi-double, or double, white, pale red, or red flowers in June and July. It is one of the most ornamental of climbing roses; but, to succeed, even in the climate of London, it requires a wall. The flowers continue to expand one after another during nearly two months.

R. m. 2 *Grevillei* Hort. *R. Roxburghii* Hort.; *R. platyphylla* Red. *Ros.*, p. 69. The Seven Sisters Rose. A beautiful variety of this sort, with much larger and

more double flowers, of a purplish color; and no climbing rose better deserves cultivation against a wall. It is easily known from *R. multiflora* by the fringed edge of the stipules; while those of the common *R. multiflora* have much less fringe, and the leaves are smaller, with the leaflets much less rugose. The form of the blossoms and corymbs is pretty nearly the same in both. A plant of this variety on the gable end of R. Donald's house, in the Goldworth Nursery, in 1836, covered above 100 square feet, and had more than 100 corymbs of bloom. Some of the corymbs had more than 50 buds in a cluster; and the whole averaged about 30 in each corymb; so that the amount of flower buds was about 3000. The variety of color produced by the buds at first opening was not less astonishing than their number. White, light blush, deeper blush, light red, darker red, scarlet, and purple flowers, all appeared in the same corymb; and the production of these seven colors at once is said to be the reason why this plant is called the seven sisters rose. This tree produced a shoot the same year which grew 18 ft. in length in two or three weeks. This variety, when in a deep free soil, and an airy situation, is of very vigorous growth, and a free flowerer; but the shoots are of a bramble-like texture, and the plant, in consequence, is but of temporary duration. R. Donald's *R. Grevillei* died in three or four years.

R. m. 3 Russelliana is a variety differing considerably, in flowers and foliage, from the species, but retaining the fringed foot-stalk; and is, hence, quite distinct from *R. sempervirens Russelliana*.

R. m. 4 Boursaultii Hort., *Boursault's Rose*, is placed, in Don's *Miller*, under this species; though it differs more from the preceding variety than many species do from each other. It is comparatively a hard-wooded, durable rose, and valuable for flowering early and freely. This is a very remarkable rose, from its petals having a reticulated appearance.

72. *R. BRUNO'NI* Lindl. BROWN'S ROSE.

Identification. Lindl. *Ros. Monog.*, p. 120, t. 14; Dec. Prod., 2, p. 598.

Synonyme. *R. Brównii* Spreng. Syst., 2, p. 556.

Spec. Char., &c. Shoots trailing. Prickles of the stem stout and arched. Leaflets 5-7, lanceolate, pilose on both surfaces; the under one glandulous, and of a different color from the upper one. Stipules narrow, acute. Inflorescence corymbose. Peduncles and calyxes pilose, and a little hispid. Sepals entire, narrow, and longish. Styles cohering into a very long pilose column. Fruit ovate. A native of Nepal. Leaves simply serrated. Flowers in terminal bunches, white or pale red. A rambling shrub, flowering in June and July.

73. *R. MOSCHA'TA* Mill. THE MUSK ROSE.

Identification. Mill. Dict., No. 13; Red. et Thor. *Ros.*, 1, p. 33, ic., and p. 99, ic; Lindl. *Rosar. Monog.*, p. 121; Dec. Prod., 2, p. 598; Don's *Mill.*, 2, p. 533.

Synonymes. *R. opsostemma Ehrh. Beitr.*, 2, p. 72; *R. glandulifera Roxb.*

Spec. Char., &c. Shoots ascending. Prickles upon the stem slender, recurved. Leaflets 5-7, lanceolate, acuminate, nearly glabrous, the two surfaces of different colors. Stipules very narrow, acute. Flowers, in many instances, very numerous; white, with the claws of the petals yellow; very fragrant. Lateral peduncles jointed, and, as well as the calyx, pilose, and almost hispid. Sepals almost pinnately cut, long. Fruit red, ? ovate.

Description, &c. The branches of the musk rose are generally too weak to support, without props, its large bunches of flowers, which are produced in an umbel-like manner at their extremities. The musky odor is very perceptible, even at some distance from the plant, particularly in the evening,—

"When each inconstant breeze that blows
Steals essence from the musky rose."

It is said to be a native of Barbary; but this has been doubted. It is, however, found wild in Tunis, and is cultivated there for the sake of an essential oil, which is obtained from the petals by distillation. It has also been found wild in Spain. The first record of the musk rose having been cultivated in England is in *Hakluyt*, in 1582, who states that the musk rose was brought to England from Italy. It was in common cultivation in the time of Gerard, and was formerly much valued for its musky fragrance, when that scent was the fashionable perfume. The Per-

sian attar of roses is said to be obtained from this species. The musk rose does best trained against a wall, on account of the length and weakness of its branches; and Miller adds that it should always be pruned in spring, as in winter it will not bear the knife. It requires very little pruning, as the flowers are produced at the extremities of the shoots, which are often 10 ft. or 12 ft. in length. It flowers freely, and is well worthy of cultivation. This rose is thought by some to be the same as that of Cyrene, which Athenæus has mentioned as affording a delicious perfume, but of this there is no certain evidence. It seems to have been rare in Europe in the time of Gessner, the botanist, who, in a letter to Dr. Occon, dated Zurich 1565, says that it was growing in a garden at Augsburg, and was extremely anxious that the doctor should procure some of its shoots for him. Rivers mentions that Olivier, a French traveler speaks of a rose tree at Ispahan, called the "Chinese Rose Tree," fifteen feet high, formed by the union of several stems, each four or five inches in diameter. Seeds of this tree were sent to Paris and produced the common Musk Rose.

74. *R. RUBIFOLIA* R. Br. The Bramble-leaved Rose.

Identification. R. Brown in Ait. Hort. Kew., ed. 2, vol. 3, p. 260; Lindl. Rosar. Monog., p. 123, ic; Dec. Prod., 2, p. 593.

Spec. Char., &c. Stems ascending. Branches glabrous. Prickles scattered, falcate. Leaves pubescent beneath. Leaflets 3, ovate-lanceolate, serrate. Stipules narrow, entire. Flowers very small, of a rosy color, mostly solitary. Buds ovate. Sepals ovate, short, simple. Peduncles and calyxes a little hispid. Styles cohering into a tomentose club-shaped column, as long as the stamens. Fruit pea-shaped. A native of North America. A shrub, from 3 ft. to 4 ft. in height, and flowering in August and September.

X. *BANKSIA'NÆ* Lindl.

Derivation. So called in consequence of all the species contained in this section agreeing in character with *R. Banksiæ*, a rose named in honor of Lady Banks.

Identification. Lindl. Ros., p. 125; Don's Mill., 2, p. 584.

Sect. Char., &c. Stipules nearly free, subulate, or very narrow, usually deciduous. Leaflets usually ternate, shining. Stems climbing. The species of this section are remarkable for their long, graceful, and often climbing, shoots, drooping flowers, and trifoliolate shining leaves. They are particularly distinguished by their deciduous, subulate, or very narrow stipules. Their fruit is very variable.

75. *R. SINICA* Ait. The trifoliolate-leaved China Rose.

Identification. Ait. Hort. Kew., ed. 2, vol 3, p. 261; Lindl. Ros., p. 126, t. 16; Don's Mill., 2, p. 584.

Synonymes. *R. trifoliata* Bosc Dict. ex Poir.; *R. ternata* Poir. Suppl., 6, p. 284; *R. cherokeensis* Don. Hort. Cant., ed. 8, p. 170; *R. nivea* Dec. Hort. Monsp., 137, Red. Ros., 2, p. 81, with a fig.

Spec. Char., &c. Stipules setaceous, deciduous. Cauline prickles equal, falcate. Petioles and ribs of leaves prickly. Peduncles and fruit beset with straight bristles. Sepals entire, permanent. Flowers white, solitary. Fruit elliptic, orange-red. Disk conical. A rambling shrub, a native of China, and flowering in May and June.

76. *R. BANKSIÆ* R. Br. Lady Bank's Rose.

Identification. R. Br. in Ait. Hort. Kew., ed. 2, vol. 3, p. 256; Lindl. Rosar. Monog., p. 131; Dec. Prod., 2, p. 601.

Synonymes. *R. Banksiæna* Abel Chin., 160; *R. inermis* Rozb. ?

Spec. Char., &c. Without prickles, glabrous, smooth. Leaflets 3—5, lanceolate, sparingly serrated, approximate. Stipules bristle-like, scarcely attached to the petiole, rather glossy, deciduous. Flowers in umbel-like corymbs, numerous, very double, sweet-scented, nodding. Tube of the calyx a little dilated at the tip. Fruit globose, black. A native of China. A climbing shrub, flowering in June and July.

Description, &c. This is an exceedingly beautiful and very remarkable kind of rose; the flowers being small, round, and very double, on long peduncles, and resembling in form the flowers of the double French cherry, or that of a small ranunculus, more than those of the generality of roses. The flowers of *R. Bânkisia* alba are remarkably fragrant; the scent strongly resembling that of violets.

77. *R. MICROCA'IPA* Lindl. The small-fruited Rose.

Identification. Lindl. Rosar. Monog., 130, t. 18; Dec. Prod., 2, p. 601.

Synonyme. *R. cymosa* Tratt. Ros., 1, p. 87.

Spec. Char., &c. Prickles scattered, recurved. Leaflets 3—5, lanceolate, shining, the two surfaces different in color. Petioles pilose. Stipules bristle-shaped or awl-shaped, scarcely attached to the petiole, deciduous. Flowers disposed in dichotomous corymbs. Peduncles and calyxes glabrous. Styles scarcely protruded higher than the plane of the spreading of the flower. Fruit globose, pea-shaped, scarlet, shining. Allied to *R. Bânkisia*. A native of China, in the province of Canton. Flowers very numerous, small, white. A rambling shrub, flowering from May to September.

1. *L. BERBERIFOLIA* Lindl. The Berberry-leaved Lowea.

Identification. Lindley in Bot. Reg., t. 1261.

Synonymes. *Rosa simplicifolia* Sal. Hort. Allert., 359, *Parad. Lond.*, t. 101, *Olivier's Voyage*, 5, 49, atl. t. 43; *R. berberifolia* Pall. in *Nov. Act. Petr.*, 10, 379, t. 10, f. 5, *Willd. Sp.*, 2, p. 1063, *Ait. Hort. Kew.*, ed. 2, 3, p. 258, *Smith in Rees' Cyclopædia*, *Redouté Ros.*, 1, 27, t. 2, *Lindl. Rosarum Monog.*, p. 1, French edition, p. 23, *Dec. Prod.*, 2, p. 602, *Spreng. Syst.*, 2, p. 546, *Wallroth Monog.*, p. 25.

Spec. Char., &c. Leaves undivided, without stipules, obovate-cuneate, serrated at the tip. Prickles decurrent, and of the color of ivory. Sepals entire, subspathulate. Petals yellow, marked with purple at the base. An undershrub, a native of Persia, near Amadan, where it abounds in saltish soil; and also in fields at the bottom of Mount Elwend, and in the Desert of Soongaria. It grows to the height of 2 ft., and flowers in June and July. It is said to be so common in Persia, that, according to Michaux, who first brought it into France, it is used for heating ovens.

We have classed this singular plant with the Rose, although Dr. Lindley makes it a separate genus, under the name of *Loweia*, and with very correct reasoning. There are, however, many who have been accustomed to consider it a Rose, and would be disappointed in not finding it here, and we therefore give it the old classification.

Description, &c. The plant of this species in the garden of the London Horticultural Society is an undershrub, with recumbent, slender, and rather intricate branches, and whitish leaves. It rarely flowers; and, in regard to its propagation and culture, Dr. Lindley, in the *Bot. Reg.* for August, 1829, remarks that no more appears to be now known of it, than was at the period of its first introduction in 1790. "It resists cultivation in a remarkable manner, submitting permanently neither to budding nor grafting, nor layering, nor striking from cuttings, nor, in short, to any of those operations, one or other of which succeeds with other plants. Drought does not suit it; it does not thrive in wet; heat has no beneficial effect, cold no prejudicial influence; care does not improve it, neglect does not injure it. Of all the numerous seedlings raised by the Horticultural Society from seeds sent home by Sir Henry Wilcock, and distributed, scarcely a plant remains alive. Two are still growing in a peat border in the Chiswick Garden, but they are languishing and unhealthy; and we confess that observation of them, in a living state, for nearly four years, has not suggested a single method of improving the cultivation of the species." These plants still remain without increase; but young plants may be obtained in some of the nurseries, which have been raised from seeds; and at Vienna, as we are informed by Mr. Charles Rauch, it succeeds perfectly by budding on the common dog rose.

Thunberg speaks of the *Rosa rugosa*, as growing in China and Japan, being extensively cultivated in the gardens of those coun-

tries, and producing flowers of a pale red or pure white. The original plant is of a deep purple color. Siebold, in his treatise on the flowers of Japan, says that this rose had been already cultivated in China about eleven hundred years, and that the ladies of the Court, under the dynasty of Long, prepared a very choice pot-pourri by mixing its petals with musk and camphor.

More than one hundred distinct varieties are mentioned by botanists, in addition to those we have enumerated, but none of very marked characters or much known.

CHAPTER XVI.

GARDEN CLASSIFICATION.

THE varieties of a plant are, by Botanists, designated by names intended to convey an idea of certain characteristics,—the form and consistency of the leaves—the arrangement, number, size, and color of the flowers, seed-vessels, &c. The varieties of roses, however, have so few distinct characteristics, that amateurs find it difficult to give any name expressive of the very slight shades of difference in the color or form of the flower. Fanciful names have therefore been chosen, indiscriminately, according to the taste of the grower; and we thus find classed, in brotherly nearness, Napoleon and Wellington, Queen Victoria and Louis Philippe, Othello and Wilberforce, with many others. Any half-dozen English or French rose growers may give the name of their favorite Wellington or Napoleon to a rose raised by each of them, and entirely different in form and color from the other five bearing the same name. Thus has arisen the great confusion in rose nomenclature.

A still greater difficulty and confusion, however, exists in the classification adopted by the various English and French rose growers. By these, classes are multiplied and roses placed in them without sufficient attention to their distinctive characters; these are subsequently changed to other classes, to the utter confusion of those who are really desirous of attaining some knowledge of the respective varieties. Even Rivers, the most correct of them all, has in several catalogues the same rose in as many

different classes, and his book may perhaps place it in another. He thus comments upon this constant change :

“ Within the last ten years, how many plants have been named and unnamed, classed and re-classed !—Professor A. placing it here, and Dr. B. placing it there ! I can almost imagine Dame Nature laughing in her sleeve, when our philosophers are thus puzzled. Well, so it is, in a measure, with roses : a variety has often equal claims to two classes. First impressions have perhaps placed it in one, and there rival amateurs should let it remain.”

If there exists, then, this doubt of the proper class to which many roses belong, we think it would be better to drop entirely this sub-classification, and adopt some more general heads, under one of which every rose *can* be classed. It may often be difficult to ascertain whether a rose is a Damask, a Provence, or a Hybrid China ; but there can be no difficulty in ascertaining whether it is dwarf or climbing, whether it blooms once or more in the year, and whether the leaves are rough as in the Remontants, or smooth as in the Bengals. We have therefore endeavored to simplify the old classification, and have placed all roses under three principal heads, viz. :

I. Those that make distinct and separate periods of bloom throughout the season, as the Remontant Roses.

II. Those that bloom continually, without any temporary cessation, as the Bourbon, China, &c.

III. Those that bloom only once in the season, as the French and others.

The first of these includes only the present Damask and Hybrid Perpetuals, and for these we know no term so expressive as the French REMONTANT. *Perpetual* does not express their true character.

The second general head we call **EVERBLOOMING**. This is divided into five classes :

1. The **BOURBON** which are easily known by their luxuriant growth and thick, large, leathery leaves. These are, moreover, perfectly hardy.

2. The CHINA, which includes the present China, Tea, and Noisette Roses, which are now much confused, as there are many among the Teas which are not tea-scented, and among the Noisettes which do not bloom in clusters; they are, moreover, so much alike in their growth and habit, that it is better each should stand upon its own merits, and not on the characteristics of an imaginary class.

3. MUSK, known by its rather rougher foliage.

4. MACARTNEY, known by its very rich, glossy foliage, almost evergreen.

5. MICROPHYLLA, easily distinguished by its peculiar foliage and straggling habit.

The third general head we divide again into five classes:

1. GARDEN ROSES. This includes all the present French, Provence, Hybrid Provence, Hybrid China, Hybrid Bourbon, White, and Damask Roses, many of which, under the old arrangement, differ more from others in their own class than from many in another class.

2. MOSS ROSES, all of which are easily distinguished.

3. BRIAR ROSES, which will include the Sweet-Briar, Hybrid Sweet-Briar, and Austrian Briar.

4. The SCOTCH ROSE.

5. CLIMBING ROSES; which are again divided into all the distinctive subdivisions.

We had thought of making a separate group of roses that are so robust as to need some support, and to call these Pillar Roses; but, for various reasons, deem it better to leave them among the others for the present, simply designating them as *Pillar*. In describing colors, we have given those which prevail. It is well known that many roses are very variable in this respect, and that the same flower will frequently be white or yellow, crimson or blush, at different periods of its bloom. We have seen a plant produce several flowers totally unlike each other, one being dark crimson and the other pale blush. We therefore describe the *prevailing* color, and the cultivator should not be disappointed if his rose, the first season, should not correspond with

the description ; neither should he be disappointed if a rose which we describe as very double, should with him prove very single. Transplanting will often temporarily change the character of roses, and they often refuse to develop themselves perfectly under our hot sun, or in a poor soil. A second season is thus often required to test them fairly. We have seen the fine rose figured in this work, *La Reine*, semi-double and worthless at midsummer, while at other seasons, and perhaps in a different location, it is fully equal, if not superior, to our engraving. It is frequently the case, that roses imported from Europe, under glowing descriptions, prove worthless the first season, but fully sustain their character the second. We mention these things here, in order that the amateur may be prepared for any temporary disappointment that may occur. In describing two hundred choice varieties, we have endeavored to select those whose character is well established for superior and distinct qualities. There are many equally good that have been necessarily omitted, and there are also new varieties we have recently received from Europe, which may prove superior to many we have named.

From this list of two hundred, the rose amateur may feel safe in selecting, without incurring the risk of obtaining inferior varieties. A descriptive catalogue of 3,000 kinds, with their synonyms, will be found at the end of the work.

ROSES THAT BLOOM DURING THE WHOLE SEASON.

REMONTANT ROSES.

The term REMONTANT—signifying, literally, *to grow again*—we have chosen to designate this class of roses, there being no word in our own language equally expressive. They were formerly called Damask and Hybrid Perpetuals, but are distinguished from the true Perpetual or Everblooming Roses by their peculiarity of distinct and separate periods of bloom. They bloom with the other roses in early summer, then cease for a

while, then make a fresh season of bloom, and thus through the summer and autumn, differing entirely from the Bourbon and Bengal Roses, which grow and bloom continually through the summer. In order, therefore, to avoid confusion, we have deemed it best to adopt the French term, REMONTANT.

These roses have generally been obtained by hybridization between the Hybrid China and Damask and the Bourbon and China Roses, uniting the luxuriant growth and hardy character of the two former with the everblooming qualities of the latter. They are generally large, double, very fragrant, and bloom, many of them, freely throughout the season. They are also perfectly hardy, and grow well in any climate without protection. These qualities render them very desirable, and they are fast driving out of cultivation the Garden Roses, which bloom but once, and during the rest of the season cumber the ground. There are, it is true, among the latter some varieties like *Madame Plantier*, *Chénédole*, *Persian Yellow*, and others, that are not equaled by any varieties existing among the Remontants. Such, however, is the skill now exerted by rose growers, that this will not long be the case, and we may hope soon to have among the Remontants, roses of every shade of color, with the snow-like whiteness of *Mad. Plantier*, the golden richness of *Persian Yellow*, or the peculiar brilliancy of *Chénédole*.

These roses are difficult of propagation in any other way than budding, and two or three varieties only will readily take from cuttings. When budded on strong stocks, however, they will nearly all make luxuriant shoots and show an abundant bloom. The following varieties are among the most esteemed for various excellent qualities. The other varieties will be found in the list at the end of the work.

AMANDA PATÊNOTTE is a new rose, and one of a class recently originated by Vibert, having the scent of the Dog Rose. It has large, bright, rose-colored flowers, very double, and globular. It is also very fragrant.

AUBERNON is a brilliant and beautiful crimson rose, opens well, and blooms abundantly throughout the season.

AUGUSTINE MOUCHELET is a beautiful and desirable variety. Its color is a rich velvety crimson, slightly shaded, and much resembling *La Reine*. As a forcing rose it is not surpassed by any in this class, and, under our glass, has scarcely been equaled the past two seasons. It has all the fragrance of the *Damask Rose*, opens well, and blooms abundantly. In the open ground, however, it is not equal to some other varieties.

BARONNE PREVOST is one of the very best of this class, blooming freely in autumn, and producing very fragrant flowers, of a bright rose color. It is also of luxuriant growth, and large, rich foliage.

BERNARD is a desirable rose, with small but very fragrant flowers. They are well formed and double, and their color a light carmine tinted with salmon.

BLANCHE VIBERT is one of the new white roses received this season from Vibert. It is of the same class with *Amanda Patenotte*, and one of the few white *Remontants*. It is of medium size and double, slightly inclines to yellow when it first opens, and blooms profusely throughout the season. It was considered so great an acquisition in Paris, that our correspondent there invoiced it to us last spring at thirty-two francs.

COMTE D'EU is a fine rose, opening and blooming freely. Its color is a bright carmine, inclining to scarlet, its foliage and flower somewhat resembling those of *Gloire de Rosamène*, although not possessing the pillar habit of that luxuriant rose. Its form is cupped.

COMTE DE PARIS is one of the best, growing and blooming freely throughout the summer. It is double and globular, and possesses a very agreeable tea scent. Its color is light crimson with a shade of lilac.

COMTESSE DUCHATEL is a cupped and large flower, very double, fragrant and perfect. Its color is a bright rose.

CRIMSON PERPETUAL is an old rose, and one of the very best. Its form is cupped; its color is rich crimson; and its fragrance delightful. A small bed of these will furnish an abundance of flowers through the whole season. It very rarely will flourish on

its own root, but will make luxuriant growths when budded on a strong stock. It was introduced by Calvert, a nurseryman of Rouen, in France, having been originated by Lelieur, the gardener of Louis XVIII., at Sevres, who wished to name it after himself. The rose was, however, so much admired, that the minister wished it named *Rose du Roi*, and appealed to the king, who decided in the minister's favor, when Lelieur immediately resigned his situation.

DR. MARX is a hardy and luxuriant growing rose, blooms freely throughout the summer and autumn, and is very fragrant. Its shape is cupped and fine, and its color a bright, rosy carmine.

DUC D'AUMALE is a new and thrifty variety, with beautiful and very fragrant flowers of a bright crimson.

DUCHESS OF SUTHERLAND is a very beautiful cupped rose. Its growth and foliage are very luxuriant, and its color delicate rose. It cannot however be relied upon for an autumnal bloom.

ELIZA BALCOMBE is one of the new white Remontants. Its flowers are well formed and small, sometimes slightly tinted with blush, and blooming in clusters. Like the other white Remontants, it is a desirable acquisition to this class.

ERNESTINE DE BARENTE is one of the new French roses, and is indeed a beautiful little flower, very regularly cupped, very double, and in shape much resembling a fine double Ranunculus. Its size is scarcely larger than a quarter dollar, and its color is a bright pink. With its delicate, small, dark foliage, good habit, perfect hardiness, and abundant blooming qualities, it forms one of the most desirable little floral gems we know.

EARL TALBOT is a very double and fragrant rose, of the largest size. Its color is a deep rose, and it is well adapted for a warm, dry climate, and for forcing.

LADY ALICE PEEL is a very perfect and beautiful rose, finely cupped and very double. Its color is deep pink, often veined with red.

LA REINE is the largest Remontant rose known. It is beautifully cupped, almost globular, very double, and very fragrant. Its color is a brilliant rose, slightly tinged with lilac, and as

bloomed in our grounds, is not at all inferior to the frontispiece. Its foliage and habit are very good, and it may fairly rank as one of the most magnificent roses. It owes its origin to Laffay, and made its appearance in 1843.

LAURENCE DE MONTMORENCY is a new and very fine variety. Its flowers are cupped, well formed, large, and very double. Their color is a deep, rosy pink, tinted with lilac.

MADAME LAFFAY is unsurpassed in beauty of form and brilliancy of color. Its beautifully cupped form is almost perfect, although of medium size. Its fine, large foliage, and its very fragrant flowers of a glowing, rosy crimson, place it at the very head of this class. It blooms freely throughout the summer and autumn, and its form and color render it, like Chénédoles, striking among a thousand flowers.

MARQUISE BOCELLA is a rose of very robust but rather dwarf habit, with stiff and erect flower-stems. Its flower is fragrant, large, very double, and of a pale rose color. It is a free bloomer, and one of the best of the pale Remontant roses.

MAUGET. This is one of a new class of Moss Roses, blooming in the autumn. It is of medium size, double, and of a deep rose color, and is valuable as a mossy Remontant. It will probably give rise to an interesting series of new varieties.

MOGADOR is a very double and superb rose, of robust habit. Its form is beautifully cupped, and its color a brilliant crimson, slightly shaded with purple. The above name is one of its synonymes, but we have chosen it as being rather more pronounceable than its legitimate name of *Rose du Roi à fleurs pourpres*, or even that given it by the English rose growers, of *Superb Crimson Perpetual*. We think it always better to guard against confusion; and there is already one Crimson Perpetual.

POMPONE DE STE. RADEGONDE is one of the new roses, and is a most abundant bloomer throughout the summer and autumn, sometimes almost hiding the foliage with its flowers. These are well formed and of a deep rose color, inclining to violet.

PRINCE ALBERT is one of the most beautiful of this class, scarcely second to any but Mad. Laffay. Its flowers are double,

finely formed, and unusually fragrant. Its color is a deep crimson purple, and it is one of the best forcing roses.

PRINCE OF WALES is a remarkably vigorous and luxuriant growing variety. In good soils it would make a fine pillar rose. Its flowers are produced in very large clusters, and are of a bright rose color tinted with lilac.

PRUDENCE RAESER is a very fragrant rose, blooming in large and very beautiful clusters. Its flowers are cupped, finely formed, and of medium size. Its color is pale rose with fawn centre. Every shoot gives a cluster of flowers throughout the summer and autumn, and it is well adapted for pillars.

REINE DE LA GUILLOTIÈRE is a free blooming rose, with glossy foliage and brilliant crimson flowers.

RIVERS is one of the best cupped roses, blooming abundantly all the autumn, and producing its large, crimson flowers in beautiful clusters.

ROBIN HOOD is a very symmetrical and perfect rose, very fragrant, and of a deep, rosy pink. Its finely cupped flowers are produced in large clusters.

STANWELL is a Scotch Remontant, and has the peculiar foliage and habit of the Scotch roses. Its flowers are large, blush-colored, and rather flat. It is an abundant and constant bloomer throughout the season, and its peculiar, delightful fragrance renders it very desirable.

WILLIAM JESSE is one of the very largest roses in this class, scarcely second in size to La Reine. Its flowers open freely, but require good culture to be produced abundantly in the autumn. Its form is cupped, and its color crimson, with a tinge of lilac.

The directions for the culture of Remontant roses are very much the same as for roses in general, and will be found in a preceding chapter. In order to ensure a perfect autumnal bloom, it is well to shorten a large number of the flower-bearing shoots, as soon as the flower buds appear early in summer; for there is then a great abundance of summer roses, and these are not needed. The plant will then furnish a fine bloom the latter part of summer, and through the autumn. The faded blooms should

also be removed from the plant, as, if left to form seed-vessels, much of the sap is diverted from the support of the young shoots. For forcing (according to directions given in a preceding chapter) the Remontant Roses are very beautiful. From their luxuriant growth they also form very fine tree roses. A few varieties, in the list at the end of the work, will sometimes make barren shoots. As soon as this is perceived, they should be cut down to eight or ten buds, and will then generally give flowering branches.

The Remontant is a valuable class of roses, and will doubtless soon furnish so great a variation in form and color as to drive out of cultivation the old summer varieties.

EVERBLOOMING ROSES.

These roses are distinguished from the Remontant by blooming continually throughout the season, without any temporary cessation. They include the Bourbon, the Bengal and its sub-varieties, the Tea and Noisette, the Musk, the Macartney, and the Microphylla Roses. They number almost every variety of form and color, and their character of constant blooming renders them very desirable wherever the climate will allow their cultivation.

BOURBON ROSES.

For this latitude, or even that of Albany and Boston, this is perhaps the most desirable class of roses; and even in the Southern States, its valuable qualities will make it a formidable competitor for the Tea-scented Rose. These qualities are, its perfect hardiness, its very thick, leathery foliage, its luxuriant growth, its constant bloom, and its thick, velvety petals of a consistency to endure even the burning heat of a tropical sun. It was introduced into France by Jacques, head gardener of the Duke of Orleans, at Neuilly, who received it in 1819 from Bréon, director of the royal gardens, in the Isle of Bourbon. The following account of its origin is given by Bréon, and is also mentioned by Rivers:

"At the Isle of Bourbon, the inhabitants generally inclose their land with hedges made of two rows of roses; one row of the common China Rose, the other of the Red Four Seasons. M. Perichon, a planter in the island, found in one of these hedges a young plant, differing very much from the others in its shoots and foliage. This he transplanted into his garden. It flowered the following year, and proved to be of a new race, and very different from the above two roses, which at that time were the only varieties known in the island."

Its resemblance to the Bengal Rose was, however, so strong, that it was soon considered a variety of that species. Its characteristics, are, however, so entirely different from the Bengal, particularly in its entire hardness, that we give it a separate place in our garden classification. To the French we owe nearly all the varieties of this class which have been produced from the original semi-double rose, or Bourbon Jacques, as it was called. Of these varieties, the following are distinct, and possess many charming qualities that cannot fail to gratify the amateur:

AUGUSTINE LELIEUR is one of the most brilliant and beautiful of this class, with erect, bell-shaped flowers. Its form is cupped, and its color vivid rose.

BOUQUET DE FLORE is a superb cupped rose, with large, double and fragrant flowers of a deep carmine. In rich soils, it will make a good pillar rose.

CHARLEMAGNE is a new and very beautiful rose, grown by Dorisy, a French cultivator. It is a large flower, with pointed petals, blooming freely, and of vigorous habit. Its color is variable; sometimes white, and sometimes rose and carmine.

COMICE DE SEINE ET MARNE is a new and superb cupped rose, with brilliant crimson flowers.

COMTE DE RAMBUTEAU is a rose of fine foliage and habit. Its flower is cupped, and of a deep crimson hue, tinged with lilac. It is well adapted for forcing.

DR. CHAILLOT is new and very distinct. Its flower is of medium size, delicate rose-color, and very beautiful.

EDOUARD DESFOSSÉS is a very beautiful cupped rose, of very symmetrical shape. Its color is a bright rose.

EMILE COURTIER is one of the finest roses of this group. Its form is cupped, double and perfect, and its color is deep rose.

ENFANT D'AJACCIO is a very robust growing rose, making shoots twelve or fifteen feet long. As a pillar rose, or even a climber, it is perhaps the best of this group. Its flower is double, cupped, very fragrant, and of a brilliant scarlet crimson.

GEORGE CUVIER is a very distinct rose, with cupped and elegant flowers. Its color is a beautiful light cherry.

GLOIRE DE ROSAMÈNE is a rose of very luxuriant growth and large foliage. It will make longer shoots in the same period than any other rose in this group, and will form a good pillar rose or climber. It is an abundant bloomer, and its flowers are cupped, large, semi-double, and of a brilliant deep scarlet.

GRAND CAPITAINE is a fine cupped rose, with serrated foliage. Its color is a brilliant velvety scarlet.

HERMOSA is an old variety, but still one of the very best of this group. Its form is cupped, very double and perfect, and no rose blooms more abundantly, either forced or in the open ground. Its color is delicate rose. The plant is of medium growth, and well adapted, for grouping or for planting in beds with Mrs. Bosanquet and Agrippina.

IMPERATRICE JOSEPHINE is a very beautiful variety, blooming in immense clusters of a delicate pink. Its form is cupped, and the very robust habit of the plant makes it a good pillar rose.

JULIE DE LOYNES is a fragrant white rose, blooming in clusters. This is an instance of the disadvantage of the old classification, having been placed alternately among the Noisettes and Bourbons. Its foliage and habit, however, make it clearly a Bourbon.

LAVINIE D'OST is a large and very double variety, of a pale rose-color. Its form is cupped, and its very vigorous habit adapts it well for pillars.

LEVESON GOWER is a new rose, of so great merit as to command twenty-five francs in Paris. It is very large and double,

and of a deep rose color. It is said to be fully equal in form to *Souvenir de Malmaison*, and if so, will prove a superb variety. Although a very beautiful rose, it has not bloomed sufficiently long in our grounds to test its claims to the above high character.

MADAME ANGELINA is a very distinct and beautiful variety, resembling *Queen of Bourbons* in habit. Its flowers are cupped, double, finely formed, and of a lovely pale-creamy fawn color.

MADAME AUBIS is a vigorous growing rose, and suitable for pillars. Its flowers are cupped, finely formed, large, and of a bright rose color. Many of these roses are suitable for pillars, if well cultivated and watered with liquid manure, either from the barn-yard or made with two pounds of guano to twelve gallons of water.

MADAME DESPREZ is a very robust rose, blooming in larger clusters than any other of this class. Its form is cupped and very double, its color is a rosy lilac, and its luxuriant growth makes it one of the best pillar roses.

MADAME LACHARME is a new variety, of the same habit as the preceding. Its flowers are of a rich blush, inclining to white. It blooms in clusters of beautifully-formed and double flowers.

MADAME NERARD is a fragrant and very perfectly-shaped rose, of a delicate blush color.

MÉNOUX is a new and very brilliant scarlet rose. Its form is cupped and fine, and it is one of the most beautiful dwarf-growing roses.

PAUL JOSEPH is the most beautiful of the dark, purplish-crimson roses. Its growth is robust and luxuriant, and its large, thick, deep glossy-green foliage contrasts well with its brilliant crimson flowers.

PREMICES DES CHARPENNES is a new, delicate rose-colored variety, of moderate growth. Its flower is cupped, and its petals are regular and unusually pointed.

QUEEN is a very beautiful and delicate rose-colored variety, slightly tinged with buff. It is cupped, very fragrant, large, and double, and its petals are arranged with a beautiful, wax-like regularity.

REINE DES VIERGES is a new rose, much resembling Souvenir de Malmaison. Its flowers are more pale, and smaller than that variety, but perfect and regular in their shape.

SOUCHET is a new and very fine variety, with large, double, and perfectly cupped flowers. Its color is dark-crimson, shaded with purple.

SOUVENIR DE MALMAISON is altogether the most perfect and superb rose of this or any other class. It was originated by Béluzé, a Frenchman. Its flowers are cupped and of very perfect form, very double, with thick, velvety petals; they are of the largest size, often four to five inches in diameter, and their color delicate blush, with a rich tint of cream. Its large and very luxuriant foliage, compact habit, and flowers of exceeding beauty, render this the very finest rose known. We should have figured it, had we been familiar with its beauty at the time our engravings were executed.

SPLENDENS is a fragrant rose, of robust and very luxuriant habit. It opens well, and is an abundant bloomer. Its color is rich purplish-crimson, and its leaves are remarkably large and beautiful. It will make a good pillar rose.

TRIOMPHE DE LA GUILLOTIÈRE is one of the most vigorous pillar roses of this family. It blooms in large clusters of deep rosy-red flowers.

Many of these varieties of Bourbon roses are well adapted for pot-culture and forcing. For window culture some of them are unsurpassed, when budded on strong stocks. Nearly all of them are so difficult of propagation by cuttings, that they will be found budded, in most of the nurseries. When planted in groups in a rich soil, and with a skilful blending of colors, they will present a beautiful show of leaf and flower throughout the season; they make, also, fine standards for a lawn, and many of them are almost sufficiently luxuriant to make a good hedge. They do not require so much pruning as Perpetuals, but should be thinned out in the winter, and shortened to half a dozen buds. We hope to see this class of roses more generally cultivated, for it is cer-

tainly not surpassed by any other, and in many important qualities it is unequalled.

CHINA ROSES.

It is now nearly half a century since this abundant blooming rose was introduced into Europe from India, and was called the Bengal Rose. It was, however, not indigenous to India, but was brought to that country from China. It is, therefore, more appropriately called the China Rose. The numerous varieties have been produced from two distinct species—*Rosa Indica* and *Rosa Semperflorens*; but the garden varieties from these distinct species have so run into each other, that it is impossible to classify them by their parentage. Next to the Bourbon, this is perhaps the most valuable class of roses; but, in this climate, need protection from the cold. This, however, can be easily afforded by means of salt hay or straw. They bloom most freely and abundantly—flower succeeding bud and bud succeeding bloom throughout the whole season. Such is their ever-blooming nature, that, if brought into a mild temperature on the approach of cold weather and properly pruned, they will bloom the whole year without cessation. This quality renders them peculiarly adapted for early and late forcing and for window culture; for, by means of them a regular succession of abundant bloom can be enjoyed during what are deemed the dreariest months of the year. This class is also valuable for the great range of color taken by its varieties. When planted in a good soil, it grows very thriftily and makes strong shoots. A French writer speaks of a plant of this species in the vicinity of Paris, which was twice the height of a man, and formed a bush so thick that four persons could scarcely embrace it. At the time of its first bloom, this bush was said to have borne some two to three thousand flowers, and during the remainder of the season bore many hundreds at a time. In some parts of Europe it is used for making hedges, which are regularly pruned with shears, and arbors are also formed, from nine to ten feet high, which are generally in bloom during nine months of the year.

Audot, in his "Notes sur les Jardins d'Italie," speaks of having seen, in the garden of an Englishman named Mills, on the site of the ancient imperial palaces at Rome, a number of rose arcades, called, by the Italians, *Pergoles* (see fig. 17). The columns or posts which formed them were about nine feet high, and the same distance apart. This pergole was constructed of very light material, and entirely covered with a free-growing variety of the China Rose, which is never injured by the cold in the mild climate of Italy. "It is impossible," says Audot, "to conceive a more splendid bloom than that of these roses, trained upon pergoles so graceful. The foliage disappeared under the gorgeous drapery of glittering roses."

This rose is particularly adapted for bedding out upon a lawn. Now that an improved taste is discarding the old and regular flower-garden, and in its place beds and patches of flowers are scattered about the lawn, there are few objects more beautiful than circular or oval beds of China roses, scattered in graceful irregularity, and intermingled with groups of trees and shrubs. They should be kept free from weeds, and when the soil is rich and the thrifty young shoots are kept pegged down, these slashes will present a beautiful mass of foliage and bloom in every variety of color. It frequently happens that the grounds about a house are of such a nature as to require several terraces. A very beautiful display can be formed by planting the perpendicular or sloping sides of these terraces with dwarf-growing China Roses, which, when kept pegged down, and in dry weather occasionally watered, will present a rich and glowing mass of bloom.

It is since the advent of the China Rose and its congeners, the Bourbons and Remontants, that the rose can be said to have taken its true place as the most valuable flower of the garden. While the rose was only known as blooming once in the season, there was some excuse for the preference given to hyacinths, tulips, carnations, &c.; but at this time, while the latter require so very careful culture, and then bloom but for a short time, they cannot compare in value with the many varieties of Remontant, Bourbon, and China Roses, which furnish a constant succession

of bloom throughout the season. The Tea and Noisette Roses have been generally classed distinct from the China ; they are, however, but varieties of the latter, and there is so much confusion in the old classification, that the amateur is frequently misled. Many of the roses now classed among the China have a strong tea scent, and many of the present Tea Roses have very little fragrance. The characteristic of the Noisette Rose is understood to be its cluster-blooming habit. In the Noisette Roses, however, as formerly classed, there are some varieties that do not bloom in clusters, and among the China, Tea, and Bourbon, many that frequently bloom in clusters. With this confusion existing, we have thought it best to place them altogether under their true head of China Roses. For the benefit of those who may have been accustomed to the old classification, we have given each its old designation of Tea or Noisette, as classed by Rivers, Vibert, and others.

The original variety of the Tea Rose was imported from China into France in 1810, and the yellow variety in 1824. Many of the tea-scented varieties have thick, rich petals, fine foliage, and beautiful colors ; they are, however, more tender than others. In the warm climate of Italy and our Southern States they grow and bloom most beautifully, and are general favorites. Above all other roses, they require a rich soil, with a dry bottom and a sheltered situation ; they will sometimes endure our winters with the thermometer at zero, but it is better to protect them by means of straw and hay, or of boards upon low stakes. Perhaps the least troublesome way of protecting them is, to have one or more hot-bed frames, six feet by twelve and about a foot and a half or two feet deep. This can be set several inches in the ground, and litter of any kind placed around the sides. The roses can be carefully taken up, and planted in this frame as thick as they will stand. The top can then be covered with boards a little slanting, to carry off the rain, and the plants will be sufficiently protected. If the weather is very severe, some litter can also be placed upon the top. The whole can be made of rough boards very cheaply, and will protect a great many plants.

The original Noisette Rose is stated, both by English and French writers, to have been introduced into France by Louis Noisette, the author of a work on fruits, who received it, early in the present century, from his brother in Charleston, S. C. An English writer, however, contradicts this, and states that it was raised in Long Island, whence a plant was taken to Rouen by one Landorme, some time before Noisette received his plant from America. Be this as it may, the variety was much admired in Paris, and very soon all roses blooming in clusters began to be called Noisettes, even when like *Smithii*, *Chromatella*, and others, they had very few of the distinctive characters of the first Noisette Rose, for the true Noisette roses are distinct both in habit and bloom. The original Noisette was at first thought a Musk Rose, being precisely similar to a variety raised from the seed of the Musk Rose by M. Robert, overseer of the Marine Garden at Toulon, in France. Subsequently, various writers and botanists, Loudon among them, have made it a variety of the Bengal Rose. With this authority, and with the fact before us that the lines of difference between the old China, Tea, and Noisette Roses very much run into each other, we think we are fully warranted in the adoption of our present classification, which is intended less for the benefit of the botanist or the nurseryman than for the convenience of the amateur.

Like other classes, this of the China Rose includes a great number of varieties, which, with their synonymes, may be found at the end of the work. The following are some of the best, and their quality is such as to ensure the amateur good varieties, whichever of them he may select:

ADAM, T., is one of the finest new tea-scented roses. Its flowers are cupped; very double and large, and of perfect form. It is very fragrant, and its color is a rich, glossy rose.

AGRIPPINA, though an old rose, is still one of the best and most popular of its class. As a forcing rose, and for an abundance of bloom, it is largely cultivated by bouquet venders. It is cupped, beautifully formed, and of a rich, brilliant crimson, with a deli-

cate white stripe in the centre of each petal. It is one of the most hardy and desirable of the old China Roses.

AIMÉE PLANTIER is a fine, large rose, cupped and very double. Its color is bright fawn, tinted with blush, and it is one of the hardiest of the class.

AIMÉE VIBERT, N., is one of the most beautiful of the Noisette or cluster-flowering roses. It blooms freely through the season, is tolerably hardy, and produces an abundance of small, snow-white flowers, in fine clusters.

ARCHDUKE CHARLES is a fine cupped and hardy rose (in this class we always use *hardy* comparatively). Its color is rose, changing to crimson during expansion, and having frequently a beautiful carnation-like appearance.

AUGUSTINE HERSENT is a very hardy and luxuriant-growing variety, of distinct character; its form is cupped, and its color a fine bright rose.

BARBOT, T., is a very large cupped rose, tea-scented and of a beautiful fawn color.

BOCAGE, T., is a very beautiful new tea-scented variety. Its flowers are large and double, and of a delicate white, tinged with yellow.

BOUGERE, T., is a very large, superb rose, one of the very best of the tea-scented varieties. Its form is cupped, and its color a rich, glossy, bronzed rose.

BOULOGNE, N., is a brilliant cupped rose, blooming in clusters of a deep crimson-purple.

BOUQUET TOUT FAIT, N., is a very luxuriant-growing pillar rose, blooming in immense clusters. It is very fragrant, and its color is creamy white, with buff toward the centre.

CAPRICE DES DAMES is a very beautiful little miniature rose, formerly classed with others of the same character, under the name of *Rosa Lawrenceana*. Its foliage is beautiful and delicate, and its very small, fairy flowers are of a bright rose color. For window culture these little miniature roses are very beautiful.

CAROLINE, T., is a fine variety, with very double and perfect flowers, of a bright rose color.

CHROMATELLA, N., is a truly magnificent and splendid rose, raised at Angers (France), from Lamarque; and, as bloomed in our vinery and grounds, is fully equal to our engraving. It is of robust habit, and its luxuriant shoots would make it a fine pillar rose. Its leaves are large and glossy, with a beautiful, rich purple edge when young. The bud is of a rich cream color, but when the large globular flower is fully expanded, its color is a brilliant and beautiful yellow, with petals whose thickness will endure the hottest sun without fading. When the plant is young, it is rather a shy bloomer, but when of some age and in a good soil and location, nothing can exceed the magnificence of its superb flowers. In our grounds it has endured our coldest winters, but it would be safest to protect it.

CLARA SYLVAIN is one of the best white roses of the old China class. It grows very freely, and gives its globular, pure white and fragrant flowers in the greatest abundance.

CLARISSA HARLOWE, N., is a fine cluster-flowering variety, with very large and double flowers, of a pale blush color. Its vigorous and luxuriant growth adapts it well for pillars.

COMTE DE PARIS, T., is a superb cupped and tea-scented rose, whose magnificent size and hardy, robust nature fully compensate for its deficiency of petals, when fully expanded. Its foliage is large, its growth is very luxuriant, and its flowers of a pale rose color.

COMTE OSMOND, T., is a new and fine rose, with very double flowers, of a beautiful cream color.

DAILY BLUSH is one of the oldest China Roses, but one of the very best. There can be nothing more perfect than its half-expanded bud, of a light crimson, inclining to blush. It commences blooming among the earliest, and, if the old seed-vessels are picked off, will continue to bloom abundantly through the summer and autumn, even after severe frosts. It is one of the hardiest of the class, and if left in this latitude unprotected during the winter, will lose no more wood than it will be necessary to cut out in the spring. It grows freely, and making a stiff, upright bush, would be well adapted for a hedge—the winter per-

Chromatella

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Chromatella.

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forming the office of the shears. We recollect seeing at Genoa, in Italy, a beautiful hedge of this rose, which, even at that time, in mid-winter, had not lost all its foliage. We can imagine few things more beautiful than a well-cultivated hedge of this rose, with its smooth, glossy foliage well sprinkled with the beautiful ruby-tinted buds.

DAILY WHITE is very similar to the preceding, in everything but the color of its flowers, which are pure white. Like the other, its fully expanded flowers are inferior to many other varieties, but its half-blown buds are very perfect, and make it a desirable plant for the bouquet-maker.

DEVONIENSIS, T., is a very beautiful rose, of immense size. Like Chromatella, it is sometimes a shy bloomer when young, but is well adapted for forcing. Its form is cupped, and its color a fine creamy white, tinted with rose.

DUCHESS OF KENT is a very beautiful variety. It is very double, with a perfect form, and of a delicate blush and pink color.

DUCHESS DE MECKLENBURGH, T., is a very beautiful tea-scented variety, with very large cupped flowers, of a creamy yellow or straw color.

ECLAIR DE JUPITER, N., is a very distinct pillar rose, of most luxuriant habit. Its flowers are cupped, semi-double, and large. The inside of the petals is of a light vivid crimson, and the outside of a peculiar whitish appearance, as if powdered.

ELIZA SAUVAGE, T., is one of the finest of the tea-scented roses. Its habit is good, its bloom is free and abundant, and its very large and double globular flowers are of a fine pale yellow, with orange centre.

EUGENIE JOVIN, T., is one of the best of the new roses, scarcely inferior to any in this list. Its flowers are large, abundant, and of a flesh-colored white, slightly tinted with fawn.

FABVIER is a good rose, and hardy. It is desirable for its distinct flowers, whose color is a very brilliant and beautiful scarlet.

HELENBERG, N., is one of the finest crimson cluster-blooming

roses. Its form is cupped, its color brilliant crimson, and when well grown, is of very good habit.

GOUBAULT, T., is one of the most hardy of the tea-scented roses, and its growth is luxuriant. It is very fragrant, its form is cupped, and its color bright rose.

GRANDIFLORA is one of the most luxuriant and robust of the old China Roses, and a distinct, excellent variety. Its flowers are crimson, globular, and of the largest size.

JAUNE DESPREZ, N., is an old variety of first-rate excellence, and scarcely surpassed by any in this list. Its form is cupped, and its color a singular rosy-copper, inclining to fawn. It is of large size, and its delightful fragrance is sufficient to perfume a distance of many yards. It is very hardy, and of robust and luxuriant growth, making a fine pillar of twelve to fifteen feet in height.

JOSEPHINE MALTON, T., is a beautiful tea-scented variety, with finely-cupped and large flowers, of a creamy white. Its hardy and robust nature, combined with its beauty of form and color, render it a very desirable rose.

JULIE MANSAIS, T., is a large and superb tea-scented rose, globular, and very fragrant. Its color is white, with lemon centre.

LAMARQUE, N., is a well-known and superb variety, whose very vigorous growth adapts it well for a pillar, or even for a climber, as in rich soils and favorable locations it will make shoots of fifteen feet in a season. When budded on a strong stock, few roses can surpass its large cupped and straw-colored flowers, weighing down the stems with their weight. It is a fragrant and most desirable variety.

LYONNAIS, T., is a hardy and very large rose, of a pale flesh-color, and blooming freely. Its half-opened buds are really beautiful.

MADAME BRÉON is one of the new China Roses, and one of the very best. Its flowers are very large and double, beautifully cupped, and of a brilliant rose color. Few of the old China Roses can surpass it.

MARSHAL BUGEAUD, T., is a new and superb tea-scented

rose. Its habit is very luxuriant and robust, and its shoots are armed with large and stout thorns. Its cupped and beautifully-formed flowers are large, very double, and of a bright rose color.

MOIRÉ, T., is one of the best tea-scented roses for a hot climate, having very thick petals. Its form is cupped and large, and its color a beautiful fawn, tinted sometimes with cream and rose.

MRS. BOSANQUET is one of the most desirable of the old China Roses, and there are few in any other class that can surpass it. Its growth is luxuriant, and its superb cupped, wax-like flowers, are of a delicate flesh-color, and are produced in the greatest abundance.

NARCISSE, N., is a new and very beautiful yellow rose, blooming freely in clusters. Its form is rather expanded, when fully open, but its buds are beautiful. Its good habit, its abundant blooming quality, and its fine color, render it one of the very best of the yellow roses.

NE PLUS ULTRA, N., is one of the best of the cream-colored roses. Its form is cupped, it is very fragrant, and is well adapted for forcing.

OPHIRE, N., is a medium-sized rose, of a very singular color, entirely different from any other rose known, being a bright salmon, almost saffron. It blooms in clusters, and its luxuriant habit would make it a good pillar rose.

PACTOLE, N., is one of the very best of the cluster-flowering roses. Its form is cupped, and its color pale sulphur, with a deep yellow centre. It blooms very abundantly, and is robust and hardy.

PHALOE, N., is one of the new cluster-flowering roses, and is very beautiful. It is an abundant bloomer, and its large flowers are of a whitish-fawn color, beautifully clouded with rose.

POURPRE DE TYR, N., is a new variety, large and very double, with brilliant crimson flowers. Its robust habit and its large, dark-green foliage, make it a good pillar rose.

PRINCE CHARLES is a beautiful cupped rose, with large and globular flowers of a brilliant carmine.

PRINCESSE ADELAIDE, T., is a highly improved variety of the old Yellow Tea Rose, and of deeper color. Its flowers are cupped, large, and very double.

PRINCESSE MARIE, T., is one of the finest tea-scented roses. Its flowers are very large, often more than four inches in diameter, and of a dark flesh-color.

RETOUR DU PRINTEMPS is a very pretty miniature rose, formerly classed as *Rosa Lawrenceana*. It is quite distinct, with bright rose-colored and cupped flowers, surrounded by a curious calyx. The plant is as luxuriant as any of its congeners, and the leaves are deeply tinged with red.

SAFRANO, T., is scarcely excelled by any rose. Its half-opened bud is very beautiful, and of a rich deep fawn color. When open, its form is cupped, and its color a much lighter fawn. These fawn-colored roses have peculiar charms for us; and of them all, there are none more beautiful or richer than Safrano.

SILENE, T., is a very beautiful tea-scented rose, cupped, very double, and fragrant. Its color is rose, shaded with crimson, and the plant is hardy and of luxuriant growth.

SMITHII, N., although an old rose, is one of the very finest we possess. Its form is large and globular, and, when full-blown, is of a rich straw color, with yellow centre. Its half-expanded buds are beautifully formed, and of a rich yellow. It blooms in clusters, opens freely, and is a very luxuriant grower.

SOLFATERRE, N., is another superb rose, of very much the same character. Its flowers are large and globular, inclining to flat, and their color bright lemon. When half opened, the buds are superb. Like Chromatella (and Lamarque, the parent of both), its growth is very luxuriant. Rivers mentions a plant which threw out a shoot from a single bud eighteen feet in one season, and the next season was covered with flower-buds.

SOUVENIR D'UN AMI, T., is a new tea-scented rose, purchased in France for 15 francs; and with none of the high-priced roses have we been so well pleased as with this. It is indeed the

queen of the tea-scented roses, and will rank the very first among them. Its habit is good, it blooms freely, and its large and beautifully imbricated flowers, when open, much resemble in form those of *Souvenir de Malmaison*. Its color is a delicate salmon, shaded with rose, and its general character highly recommends it as first-rate in every respect.

STROMBIOT, T., is an old tea-scented variety, but still one of the finest. Its habit is good, and its large flowers are beautiful and cream-colored.

SULLY is a new and very beautiful rose. Its flowers are finely cupped, large, very double, and quite fragrant. Its color is a pale rose, shaded with fawn.

TRIOMPHE DE LUXEMBOURG, T., is an old and well-known tea-scented variety, and remarkably fine. On its first appearance, it was sold in Paris as high as 40 francs per plant. Its cupped flowers are of immense size, and, when half-blown, of great beauty. Their color is buff-rose, slightly tinged with yellow. The plant is of luxuriant growth.

In the preceding list, we have given some of the best varieties of the China Rose, and trust the amateur will find no difficulty in selecting. Many of the varieties we have designated as pillar roses; and these, so trained, would be beautiful objects on a lawn, either singly, or in groups of three to a dozen. Where the height of the pillars can be gently graduated to the highest in the centre, the effect will be very fine. In the chapter on Culture, we have given more particular directions for pillar cultivation. Many of the luxuriant growing varieties can be trained upon a common pale fence, and will cover it with flowers and foliage the whole season. Straw can be easily thatched over to protect them from the severity of winter, or bass mats would be still better. There is another very beautiful mode of cultivating the most delicate of these tea-scented roses, which we have never seen adopted, but which we are confident would produce a very fine effect. A large three or four gallon pot should be procured, and painted green on the outside; a locust post should then be obtained, some

three or four inches in diameter, and five to twelve feet in height, according to the usual length of the shoots of the variety of rose to be planted. Upon the top of this post can be placed a circular or square piece of board, the diameter of the bottom of the pot. The post should then be planted firmly in the ground and painted green. Fill the pot with rich soil, as directed in a preceding chapter; plant in it one or two roses of pillar varieties, and place it on the top of the post. The surface of the soil should then be covered with moss, and if the sides can also be covered, the good effect will be enhanced. The plants, if strong, will soon throw out long, graceful shoots, which, drooping to the ground, will hide the pot and post, and present the appearance of an ever-blooming weeping tree of great beauty. If a pyramid is desired, wires can be carried from the top of the post to the ground, some two or three feet from its base, and the shoots trained down these. We can imagine few things more beautiful than Chromatella and Solfaterre, or Bourbon Madame Lacharme growing and blooming in this way.

MUSK ROSES.

The Musk Rose grows naturally in Persia and other eastern countries, where it attains the height of a small tree, and is doubtless the rose which has been celebrated by eastern poets. It is also found in India, where it is probably the species used for making attar. In this latitude it is quite hardy, and we have a plant of the old White Musk in our grounds, that has braved the severity of more than twenty winters. It has already, this season, made shoots of more than six feet, and in our Southern States more than double the growth would probably be obtained. The blossoms appear in clusters, and commencing later than any other rose, continue abundant throughout the season. The Old White Cluster has been widely distributed throughout the country, and is deservedly a favorite. The two best varieties, however, are the following:

EPONINE is a cupped and very double variety, with the peculiar musk fragrance. It is pure white, and a very pretty rose.

PRINCESS OF NASSAU is a luxuriant-growing and very fra-

grant variety, and would make a good pillar rose. It blooms in large clusters of cupped flowers, changing from yellow to cream-color as they open.

MACARTNEY ROSES.

This rose was brought from China to England, by Lord Macartney, in 1793. Its habit is luxuriant, and its foliage is more beautiful than that of any other rose, its leaves being thick and of a rich glossy green. It commences blooming about midsummer, and its flowers, whose fragrance is like the perfume of an apricot, succeed each other without interruption till the first frosts, while the leaves remain till the very latest. Although as hardy as the hardiest of the China Roses, it would be better in this latitude to give it the same protection as recommended for the China. It is one of the most desirable roses for beds or borders. When covering the whole ground, and kept well pegged down, its rich, glossy foliage, gemmed with fragrant flowers, produces a beautiful effect. The varieties of this rose are very few, but the two best are the following :

ALBA ODORATA is a vigorous growing rose, with very rich and beautiful foliage. Its fragrant flowers are cream-colored, and, when in bud, are very beautiful. It has stood the last three winters uninjured in our grounds without protection, and is a very beautiful and desirable variety. It is classed by Rivers as a *Microphylla*, but it so little resembles that rose, and is so decidedly Macartney in its character, that we place it with the latter.

MARIA LEONIDA is a very beautiful, but not entirely double variety, as its stamens can sometimes be seen, which, however, give a graceful appearance. Its flowers are finely cupped, and pure white, with a tinge of blush at the base of the petals.

MICROPHYLLA ROSES.

This rose came originally from the Himalayan Mountains, and was brought to Europe in 1823. Its foliage is small and singular, and its growth is very robust. Its flowers bloom from midsummer till frost, and have a singular appearance ; they are very

double, with a calyx whose small, bristling sepals give the opening bud the appearance of a small chestnut. The plant is hardy, and has endured the winter in our grounds for the past ten years without protection, losing only a portion of the top of its shoots. Of the several varieties, one of the best is

RUBRA, which has very double and cupped flowers, of a blush and often rose-color, with a deep-red centre.

ROSES THAT BLOOM ONLY ONCE IN THE SEASON.

GARDEN ROSES.

For want of a better, we use this term to designate all those roses that bloom only once in the season, and that strongly resemble each other in habit and flower. It includes those classes called, by rose-growers, French, Provence, Hybrid Provence, Hybrid China, Hybrid Bourbon, White and Damask Roses.

On a preceding page we have given our opinion respecting classification, but we wish it to be understood fully, that we do not deny the existence of clearly distinctive characteristics in the true French, Provence, Damask, &c., but simply assert that the lines of difference between these so run into each other, and are so blended together, that it is almost impossible to know where to place a new rose, which may partake of the qualities of all. We have mentioned Rivers as the most skilful and correct of rose-growers; and yet, in classing Lady Fitzgerald and Madame Hardy among the Damask, he says that neither of them are pure Damask; and the Duke of Cambridge, which at first he thought a Hybrid China, he now places among the Damask; other similar instances are frequent. Many roses, moreover, are classed as hybrids which are not truly such. We are quite inclined to think that, owing to superfoetation and other unavoidable causes, a large number of the varieties supposed to have been produced by hybridizing, are nothing more than the natural produce, and that the pollen, in many cases, has not impregnated the pistil to which

it was applied. With this uncertainty, therefore, as evinced by Rivers in his work, and with doubts of the hybridity of supposed hybrids, we deem it better to class them all together; and, for the benefit of those who may prefer the old classification, to attach to each name the class by which it has been hitherto known.

We write principally for the amateur, and we think he will find it less embarrassing to make a selection from the new than the old classification.

A great number of Garden Roses will be found in the list at the end of the work, and we describe here only a few distinct varieties, with colors which are seldom found among the Remontants.

BACHELIERD, is a Belgian rose, of cupped and compact shape. It is rose-colored, large, and very double.

BLANCHEFLEUR, H. P., is a beautiful cupped white rose, of perfect symmetry.

BOULA DE NANTEUIL, F., is one of the best. Its large and finely cupped flowers are very double, and their color crimson-purple.

BRENNUS, H. C., is a superb pillar rose, growing ten feet in a season. If not too much pruned, it will produce an abundance of crimson flowers, of great brilliancy.

CÉRISE SUPERBE, F., is one of the best summer roses, of a brilliant cherry red. It is cupped, double, and very beautiful.

CHÉNÉDOLE, H. C., is one of the most splendid roses, and is truly beautiful. Its foliage and habit are very good, and its very luxuriant growth makes it a good pillar rose. Its flower is cupped, large, double, and fragrant, and its color is a rich, glowing crimson, of almost dazzling brilliancy. It is altogether the most desirable rose of this class.

COUPE D'HÉBÉ, H. B., is a very beautiful and symmetrical rose, with very regular petals, of a beautiful pink. Its growth is luxuriant, and adapted for pillars.

DUC DE LUXEMBOURG, A., is a beautiful rose, with very large and globular flowers. A singular and beautiful effect is produced

by its petals, which are almost white outside and a purplish rose inside.

DUKE OF DEVONSHIRE, H. C., is a cupped variety, of very perfect shape. Its color is lilac rose, finely striped with white. Its habit is sufficiently luxuriant for a pillar, and it is a desirable rose.

DUKE OF SUSSEX, H. C., is a very fine globular rose, of a bright cherry red color. Its growth is luxuriant, and it blooms freely.

EMERANCE, H. P., is a beautiful cupped rose, of a color unusual in this class, being of a pale lemon or straw color. Its form is very regular, and the habit of the plant good.

FULGENS, H. C., is a very beautiful variety, with globular flowers of a brilliant scarlet. Its foliage is peculiarly tinted with red, and its luxuriant spreading branches make a very fine head. Nothing can exceed the *tout ensemble* of a fine plant of this variety in full bloom. The very abundant and vivid scarlet flowers form, with the tinted foliage, a rich and glowing mass.

GEORGE THE FOURTH, H. C., is an old rose, produced by T. Rivers, but is still one of the most desirable of this class. Its flowers are of a dark crimson, and its young shoots have a purple tinge. Its very luxuriant habit makes it suitable for a pillar.

GREAT WESTERN, H. B., is a most robust variety, with immense leaves, and blooming in large clusters of rich, purplish red flowers, which are very brilliant in clear, dry weather.

LADY STUART, H. C., is a cupped, fragrant, and very beautiful rose, of a pale blush color. Its half-expanded buds are almost round, and very perfect.

LA NÉGRESSE, D., is one of the darkest roses known. Its flowers are cupped, and of a deep crimson-purple color.

MADAME PLANTIER, H. C., is a cupped and double, pure white rose. It is a luxuriant grower, a most abundant bloomer, and one of the very best of the white summer roses.

MADAME ZOUTMAN, D., is a new and very beautiful rose. Its form is cupped, and its color a delicate cream, tinted with fawn.

NERO, H. P., is a rose of luxuriant growth, suitable for pillars. Its form is cupped, and its color dark-red, tinged with purple.

NEW DOUBLE GLOBE, H. P., is a new white rose, of luxuriant habit. Its form is cupped, and it sometimes has a slight, delicate tinge of lemon.

NOVA CÆLESTIS, A., is a beautiful cupped rose, pure white, and blooms very abundantly.

ŒILLET PARFAIT, F., is a new and most beautiful striped rose, scarcely distinguishable from a carnation. Its form is compact, and its color a very light blush, nearly white, beautifully and distinctly striped with rose and bright crimson.

PERLE DES PANACHÉES, F., is a new cupped rose, of a pure white, striped with bright-red and purple.

POPE, D., is a new cupped rose, produced by Laffay. It is large, very double, of a fine crimson-purple, and sometimes inclined to bloom in autumn.

PRINCESS CLEMENTINE, H. P., is a pure white rose, of luxuriant habit, and well adapted for a pillar. Its flowers are abundant, finely formed, very double, and when in full bloom, make a beautiful show.

PRINCESSE DE LAMBALLE, A., is a pure white and abundant blooming rose. Its form is compact and perfect, and it is one of the most desirable of the white roses.

PULCHERIE, D., is a distinct and elegant rose, pure white, and perfect in form.

SCHISMAKER, F., is one of the darkest roses known, its color being a deep slaty purple. Its flowers are cupped and large, and its habit good.

SEMIRAMIS, D., is a very distinct and beautiful rose. Its form is cupped and its color rose with a fawn-colored centre.

SOPHIE DE MARSILLY, A., is a very double and perfect mottled rose of much beauty. Its color is flesh, showing a pink centre as the flower expands.

TIPPPOO SAIB, H. B., is a new and very beautiful rose with finely cupped flowers whose color is a deep mottled pink tinted with salmon.

TRICOLOR D'ORLEANS, F., is a new striped rose, of rather expanded form. Its ground color is red, with white stripes.

TRIOMPHE D'ANGERS, H. C., is a fine variety, with luxuriant habit. Its flowers are large, and of a brilliant crimson, sometimes striped with white. They have also a pleasant fruit-like perfume.

TRIOMPHE DE JAUSSENS, F., is a superb variety with vigorous habit. Its flowers are large, very double, with cupped and perfect form. Their color is brilliant crimson, and when half expanded, they are really beautiful.

UNIQUE DE PROVENCE, P., is an old variety, but still one of the best. Its habit is good, and its double, pure white flowers are produced in abundance.

VENUS, A., is a beautiful rose, of medium size, perfectly cupped, and of very symmetrical shape. It is white, delicately shaded to a pink centre. Its habit is good, and it will compare well with the best.

MOSS ROSES.

The Moss Rose was introduced into England from Holland in the sixteenth century, and is first mentioned by Miller, in 1727, by whom it was supposed to be a sport of the Provence Rose, which opinion has been confirmed by modern botanists. Its peculiarities are the delicate prickles which crowd its stem, and the beautiful mossy covering of its calyx. This mossy appearance has been deemed by some a mere *lusus naturæ*, and by others the work of an insect similar to that which produces the Bédégua. The former opinion, however, prevails; and this freak of nature, cultivators have succeeded in fixing and perpetuating in a great number of varieties. The first Moss Rose known in France was said to have been introduced there by Mad. de Genlis, who brought it with her on her return from England. In 1810 scarcely more than one variety was known, and now there exist more than a hundred. Of these the best and most distinct are the following :

ALICE LEROY is a very good variety, of a deep rose color tinged with lilac. Its large flowers are cupped and double, and its habit robust.

COMMON is the old rose-colored Moss, which has been generally cultivated in gardens. It grows well, blooms freely, is well covered with moss, and is one of the best of the old varieties.

CRIMSON is a very fine variety, which appeared accidentally in the garden of a clergyman in England. Its habit is more luxuriant than the preceding, and there is more moss upon its branch, leaf and calyx. Its form is cupped, and its color light crimson. When on its own root, it is a good variety for pegging down in beds or borders.

CATHARINE DE WURTEMBERG is a new, large, globular rose, blush-colored, and blooming in clusters. Its robust habit makes it a desirable variety.

CELINA is a dark crimson rose, of first-rate character and habit. Its foliage is a dark, glossy green, and its large brilliant crimson flowers are sometimes tinged with purple.

CRISTATA is a very singular and beautiful variety, said to have been discovered in the crevice of a wall at Friburg, in Switzerland. Rivers classes it with the Provence Roses, and when open it is merely a variety of that rose; but when in bud it is more properly a moss, although its calyx is not covered with a fine moss, but has more of a crested appearance. In a rich soil this fringe-like crest most beautifully clasps and surmounts the bud, and gives the rich clusters a truly elegant appearance. Its form is globular and its color rose.

ECLATANTE is an excellent variety of very vigorous growth, and brilliant rose-colored flowers.

LANCEL is a compact, deep-reddish rose, of rather irregular form when fully expanded. Its buds, however, are very beautiful, and covered abundantly with bright green moss.

LUXEMBOURG is a most excellent variety, of very luxuriant growth. Its flower is cupped, and of a dark crimson color, tinged with purple. It is, altogether, one of the very best of this class.

PERPETUAL WHITE is not a true Perpetual, but, in moist seasons and rich soil, will sometimes flower in the autumn. Its expanded flower, like many of the best Moss Roses, is not good, but its very pretty bud is produced in large clusters.

PROLIFIC is a dwarf variety of the common Moss, and most excellent for forcing. It is globular, rose-colored, and a most abundant bloomer.

PRINCESSE ADELAIDE is a remarkably vigorous-growing variety, with large and handsome foliage, and would make a good pillar rose. Its regularly-formed flowers, of a bright pink or rose, are produced in clusters and open well. This is one of the most desirable of this class, and owes its origin to Laffay.

PRINCESS ROYAL is a very robust rose, almost equal to the preceding in vigor. Its young leaves and branches have a red tinge, and its cupped flowers are of a deep crimson-purple, marbled and spotted with red. Although not quite double when fully open, they are very beautiful when in bud. A moss rose, however double, is peculiar only in bud, for when fully expanded, the mossy calyx must inevitably be hidden.

UNIQUE DE PROVENCE is precisely similar in robust habit and abundant bloom to the old Unique. With the same large clusters of beautiful white flowers, it unites the mossy calyx, and is a most excellent and desirable rose.

ZOE is a very singular and beautiful variety, with globular and rose-colored flowers similar to the Common Moss. Its peculiar beauty resides in the moss, which covers most abundantly its buds, leaves, and branches. From this peculiarity arises one of its names, *Mousseuse Partout*.

Like all other roses, and even in a greater degree, the Moss Rose requires a light and very rich soil, with a dry bottom. Many of them make very beautiful beds and patches, when planted in rich soil and kept well pegged down. A good supply of stable manure should be given them in the autumn, to be washed down about their roots by the winter rains. They do not generally require or bear so much pruning as other roses, but their bloom may sometimes be prolonged by shortening part of the shoots close, and only the tips of the remainder. When properly cultivated, few objects can be more beautiful than these roses, either singly or in masses. Without making so brilliant a

show as some other classes, the moss which envelops them imparts a touch of graceful beauty belonging to no other flower.

SCOTCH ROSES.

These roses are all derived from a dwarf rose found growing wild in Scotland and in the north of England. They are distinguished by their small leaves, abundant bloom and delicate habit. Being perfectly hardy, they are desirable for beds or borders, in which, with proper arrangement of colors, they show beautifully, sometimes two weeks before other roses open, and producing flowers all along the stem. Rose growers describe, on their catalogues, two or three hundred varieties, but of them all, scarcely forty or fifty are distinct; of these the best three are the following:

COUNTESS OF GLASGOW is a very pretty and brilliant dark rose, blooming abundantly.

QUEEN OF MAY is a fine and distinct variety, of a bright pink color.

WILLIAM THE FOURTH is an excellent variety, of luxuriant growth. Its flowers are pure white, and among the largest of the class.

BRIAR ROSES.

These roses are distinguished by their small, rough foliage and briar habit. They include the Sweet-Briar, the Hybrid Sweet-Briar, and the Austrian Briar. The Sweet-Briar is found in various parts of this country and in Europe, and is distinguished by the peculiar delightful fragrance of its leaves. Its simple little flower, found among the hedges, has been long a favorite, and, under the name of Eglantine, has been often the theme of poets.

The Hybrid Sweet-Briar is allied to the preceding, but has larger foliage and is of more robust growth. Many roses have been placed in this class and among the Sweet-Briars that have none of the peculiar scent of the Sweet-Briars; and hence, again, the necessity of classing together these and the Austrian Briars,

respecting which there is much confusion. The true Austrian Rose is a native of the South of Europe, and is a clearly distinct rose, but some have been called Austrian which have scarcely any of the characters of the original rose. All three, however, are Briars, that is, they produce their flowers on short joints all along the stem, and have the peculiar rough briery leaves. We therefore place them all together, attaching as before the name of the old class. The best of those described at the end of the work are the following :

CELESTIAL, S. B., is a small cupped rose, very double and fragrant, of a pale flesh-color and very pretty.

COPPER AUSTRIAN, A. B., is a very singular looking rose, blooming well in this climate. The inside of the flower is of a coppery-red, and the outside inclining to pale yellow or sulphur. It is desirable for its singularity.

DOUBLE MARGINED HIP, H. S. B., is a Hybrid Sweet-Briar of luxuriant growth, almost adapted for a pillar. Its form is cupped, and its color creamy-white, shaded with pink.

DOUBLE YELLOW PROVENCE is the best of the two varieties which compose the species called Sulphurea. We have never seen its flowers, and English writers all speak of the great difficulty of making it bloom. Rivers recommends to bud it on strong stocks, and says that it blooms most profusely in the warm, dry climate of Florence and Genoa. The plant grows with luxuriance and produces plenty of flower-buds, which, with proper culture, would probably open in our warm climate, which is very similar to that of Florence and Genoa. Its small foliage and slender, thorny wood, place it fairly among the Briars. Its flower is so good that it is well worth the trouble of repeated experiment to obtain a good bloom. It has long been admired and exercised the skill of rose growers, as proved by the following passages from some old works, which give instructions for its proper culture :

"Whereas all other roses are best natural, this is best inoculated upon another stock. Others thrive and bear best in the sun; this, in the shade: therefore, the best way that I know to

cause this rose to bring forth fair and kindly flowers, is performed after this manner. First in the stock of a Francfort Rose, near the ground, put in the bud of the single yellow rose, which will quickly shoot to a good length; then, half a yard higher than the place where the same was budded, put into it a bud of the double yellow rose, which growing, the suckers must be kept from the root, and all the buds rubbed off, except those of the kind desired, which, being grown big enough to bear (which will be in two years), it must in winter be pruned very near, cutting off all the small shoots, and only leaving the biggest, cutting off the tops of them also, as far as they are small. Then in the spring, when the buds for leaves come forth, rub off the smallest of them, leaving only some few of the biggest, which, by reason of the strength of the stock, affordeth more nourishment than any other, and the agreeable nature of the single yellow rose, from whence it is immediately nourished, the shoots will be strong and able to bear out the flowers, if they be not too many, which may be prevented by nipping off the smallest buds for flowers. The tree should stand something shadowed, and not too much in the heat of the sun, and in a standard by itself, rather than under a wall." That which follows is from a book called *Systema Horticulturæ*, dated 1688:—"There is no flower-bearing tree that yields blossom so beautiful as the rose, whereof the yellow Provence Rose is the most beautiful where it brings forth fair and kindly flowers, which hath been obtained by budding a single yellow rose on the stock of a flourishing Francfort Rose near the ground: when that single yellow is well grown, in that branch inoculate your double yellow rose; then cut off all suckers and shoots from the first and second, leaving only your last, which must be pruned very near, leaving but few buds, which will have the more nourishment, and yield the fairer and more entire blossoms. This tree, or a layer from a rose of the same kind, delights most, and blows fairest, in a cold, moist, and shady place, and not against a hot wall."

PERSIAN YELLOW, A. B., is the deepest yellow rose known, and is a highly improved edition of the old and well-known Harrisonii. Its flowers are more double, of a deeper yellow than that

rose, and supersede it entirely. It grows freely, blooms abundantly, and its small double flowers possess a richness of color unequaled by any other rose. No garden should be without it.

ROSE ANGLE, S. B., is an excellent variety, with very fragrant foliage, and large double flowers of a bright rose color. It is one of the best of the true Eglantines.

Like the Moss Roses, the Briars will not bear much pruning, and require merely the tips of the shoots to be cut off.

CLIMBING ROSES.

In our list at the end of the work, we divide these into various distinctive sub-divisions. We describe here, however, so small a part of them, that, for convenience sake, we place them together, giving at the same time, the family to which each belongs:

AMADIS is one of the best Boursault roses, with its pendulous clusters of large purplish-crimson flowers. This family is marked by its long, flexible, reddish shoots, growing rapidly, and perfectly hardy. Their smooth bark renders them desirable for stocks to bud upon, and a fine rose of this class, covering a trellis and budded with roses of various colors, would present a beautiful appearance.

DOUBLE BLUSH AYRSHIRE is a most vigorous climber, with a pretty flower, and will grow in the poorest soil. Like many others of the Ayrshire family, it is very valuable for covering unsightly places, old buildings, and decayed trees. They bloom some two weeks earlier than other roses, and will grow in soil where others would scarcely vegetate. Hence they are valuable for covering naked sand-banks, or bare spots of earth, and their roots would be of material assistance in keeping up the soil of loose banks. Rivers gives an extract from the Dundee Courier, showing the effect produced by some of these roses.

"Some years ago, a sand pit at Ellangowan was filled up with rubbish found in digging a well. Over this a piece of rock was formed for the growth of plants which prefer such situations, and among them were planted some half dozen plants of the double

Ayrshire Rose, raised in this neighborhood about ten years ago. These roses now most completely cover the whole ground, a space of thirty feet by twenty. At present they are in full bloom, showing probably not less than ten thousand roses in this small space."

The Ayrshire Roses are also valuable for weeping trees; when budded on a stock some ten or twelve feet high, the branches quickly reach the ground, and protecting the stem from the sun by their close foliage, present a weeping tree of great beauty, loaded with flowers.

DUNDEE RAMBLER is one of the best and most double of the Ayrshire Roses. Its color is white, often edged with pink, and blooming in large clusters. It is a very desirable variety.

FÉLICITÉ PERPETUELLE is a most beautiful rose, and one of the very best of the Sempervirens, or Evergreen family. Its shoots may be thinned out, but not shortened; and when properly cultivated, it produces an abundance of very double creamy-white flowers, shaped like a double ranunculus. The Evergreen Roses are very beautiful and desirable, and although not entirely evergreen in this climate, retain their foliage very late in the season. They are very easy of cultivation, and most luxuriant climbers over naked trees, old houses, fences and walls, or along the surface of the ground, which they will soon cover to the exclusion of all weeds, and present a large mass of rich, glossy foliage and abundant bloom. When thus planted, the large weeds should be pulled up until the plant fairly covers the ground, when no more attention will be needed. They are well adapted for training up columns, and we know of few things more beautiful than a temple or pergole formed of numerous columns, with Evergreen Roses growing luxuriantly upon them and festooned gracefully between. Nothing, indeed, can be more gracefully beautiful than festoons, wherever they can be made. They constitute the chief beauty of the vine-clad fields of Italy, and there would be no less beauty in occasional festooning of roses trained between pillars or the trees of a lawn. They are also very beautiful when budded on high standards, their dark green glossy

foliage weeping to the ground, and forming a fine dome or pyramid of leaf and bloom. When pruned in the winter, the branches may be thinned out, but not shortened; for if pruned close, they will make a luxuriant growth the next season, but will produce no flowers.

GARLAND is a most vigorous hybrid climber, blooming in immense clusters of fragrant creamy-white flowers, changing to blush after expansion. When in full bloom, the contrast of the large white clusters with the bright green foliage is very beautiful.

INDICA MAJOR is a hybrid climbing rose, of most luxuriant growth and nearly evergreen foliage. Its flowers are very large, double and of a delicate rose color. The very rapid growth of this rose makes it excellent for covering old buildings. We recollect being shown last spring, at the Bartram garden of Philadelphia, a fine old plant which had covered the whole side of the house, and presented a beautiful appearance. Buist states it to be this variety.

JAUNE SERIN is a luxuriant-growing variety of the Banksian Rose, with yellow flowers of larger size than those of the old Yellow Banksia. The Banksian Roses require a greenhouse in this climate, and, trained against the back wall, are very beautiful. We recollect seeing, at the Botanic Garden at Naples, a very large plant of the Banksian Rose, the main stem being six inches in diameter, and branching off into a dozen others, fifty feet or more long. In the Southern States they would grow well in the open air, and being most vigorous climbers, would soon cover a house or trellis, and, with their small but most abundant flowers interspersed among the smooth glossy-green foliage, would form an object of surpassing beauty.

LAURE DAVOUST is one of the most beautiful of the Multiflora Roses, hardy and of most luxuriant growth. It has larger flowers and handsomer foliage than any of the other Multiflora Roses, and blooms in immense clusters of perfect flowers, changing from white to pink. For covering houses or trellises it is very desirable.

MADAME D'ARBLAY is a truly gigantic hybrid climber, perfectly hardy, and with strong, Bourbon-like foliage. It blooms in large clusters of pure white flowers, and is a truly excellent variety.

MELANIE DE MONTJOIE is an Evergreen Rose of much beauty. Its abundant and glossy dark-green foliage contrasts beautifully with its large pure white flowers.

MYRIANTHES is one of the most beautiful of the Evergreen Roses. Its flowers are most perfectly shaped, and of a very delicate rose color.

QUEEN OF THE PRAIRIES is a most superb variety of the Rubifolia or Michigan Rose. The double varieties of the original Michigan Rose have nearly all been produced by Samuel Feast, of Baltimore, while a few new varieties owe their origin to Joshua Pierce, of Washington. They are remarkable for their perfectly hardy nature, braving equally well the frosts of Canada or the heat of Louisiana. The leaves are large, rather rough, and of a rich dark-green. They grow with unexampled rapidity, exceeding in this respect any of the climbing roses, and would cover old buildings or naked ground in a very short space of time. They bloom after the other summer roses are mostly gone, and produce their flowers abundantly in large clusters of different shades, from the pale delicate blush of Superba to the rich deep rose of Queen of the Prairies.

This last is the best, and of the most luxuriant growth. Its large flowers are of a peculiar cupped form, almost globular, when in bud, and altogether of very perfect shape. They are of deep rose color, with a white stripe in the centre of each petal. This rose is truly superb, and, for our cold winters and hot sun, an unequaled climber. It would be a fine rose to cover a trellis or building, and then bud into its branches a dozen different Remontant or Bourbon Roses of various colors. The *tout ensemble* would be superb.

SUPERBA is the best pale colored rose of the same class. Its very double flowers are smaller than the preceding, but are very perfectly cupped and of a delicate blush color, almost white. Its

beautiful clusters are produced most abundantly, and when trained on a pillar, trellis, or house, or gracefully wreathed in festoons, their effect is strikingly elegant. Both these varieties are valuable acquisitions to the list of climbing roses.

TRIOMPHE DE BOLLWILLER is a very fine Evergreen Rose, rather tender in this climate, but valuable for its tendency to bloom in the autumn. Its flowers are very large, double, fragrant and globular, and their color is a blush or creamy white. At the South where it would not be killed by the cold weather, this would be one of the most desirable climbing roses.

WHITE BANKSIA is a beautiful little rose about half an inch in diameter, blooming abundantly in small and pure white clusters with a slight perfume like that of the violet. Both this and Jaune Serin are very elegant when in full bloom on a well-grown plant, either on the wall of a green house or in the open air at the South.

We have endeavored in the preceding pages to convey all the information requisite to guide the amateur in the culture and selection of choice varieties of the rose. In rose culture, as in everything where there is room for the exercise of human skill, progress is the watchword and the result; and while we deem the instructions given in these pages the best in the present state of knowledge on this subject, we shall hail with pleasure any improvement upon them. The preparation of a portion of this work has afforded us pleasant recreation in the intervals of leisure from business, and for the more toilsome part we shall feel abundantly repaid if we are found to have thrown one mite into the constantly increasing treasury of horticultural taste. That this taste is increasing we deem one of the best signs of the times, an evidence that men are beginning to discover that the accumulation of wealth is not the whole business or pleasure of life. In a true love for trees and plants there is always something elevating. A love for wealth and its accumulation is inseparable from idolatry, but a love for trees and plants is productive of the best results in a mind properly constituted. It not only preserves it

from groveling thoughts and desires, but also leads it to purer and higher aspirations. Not only is there wisely implanted in us a general love for these things, but an attachment to individual trees and shrubs which have been planted by our own hands, or by the good and the wise of past generations. Men everywhere are prone to be unsettled, and to wander wherever novelty may lead them, to the utter destruction of right mental training. To counteract this there is nothing so effective as attachment to particular localities and all their features, whether trees, mountains or streams. Nothing gives such a depth of meaning to the word home and creates so strong a determination to preserve it sacred by the performance of every duty of a good citizen. It should therefore be the desire of every man to provide a pleasant home for his children, for upon a happy childhood depends far more than is generally supposed the character of the man. The father should encourage, as one element of happiness a, love for vegetation in all its forms of created beauty, whether tree, shrub or flower. The child who has thus been educated and taught to look upon all these objects of his attachment as visible proofs of Divine beneficence will go forth into the world armed with a shield more effective than a thousand admonitions, and when temptation assails him, will find no slight defense in a recollection of his early home, of the trees under which he has so often played, or read, or thought, and the flowers whose glowing colors have so often charmed his eye. We are very certain this is no mere sentiment or fancy of the brain, for we feel assured that neither vice nor immorality, nor hardness of heart, nor disregard of the feelings and welfare of others, can readily exist where the mind is thoroughly imbued with a love for trees and flowers, and with a full appreciation of the many sources of delight bountifully bestowed upon man in the various objects of exquisite beauty in the vegetable world.

We have wandered somewhat from our subject, but we would gladly write still more, if we could only convince our readers of the great importance of this love for trees and plants—and for roses among them—and of its highly conservative influ-

ence. Let every man, therefore, that feels convinced of the truth of our remarks, plant a tree or a rose, and let his children care for it as for an old and intimate friend ; and they may rest assured that either mentally or morally they will be none the worse, but all the better for the pleasant associations connected with its form, for the joyous hope springing with its leaf, and for the serious reflection accompanying its fall ; when bud and bloom and decay fill the mind with pure and pleasant thoughts of the past and hopeful anticipations of the future.

THE END.

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Change in the appearance of the business records was found upon
made to finish the General Inspection List of about 1900. There is no
for this edition. It will be published during the coming season.

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