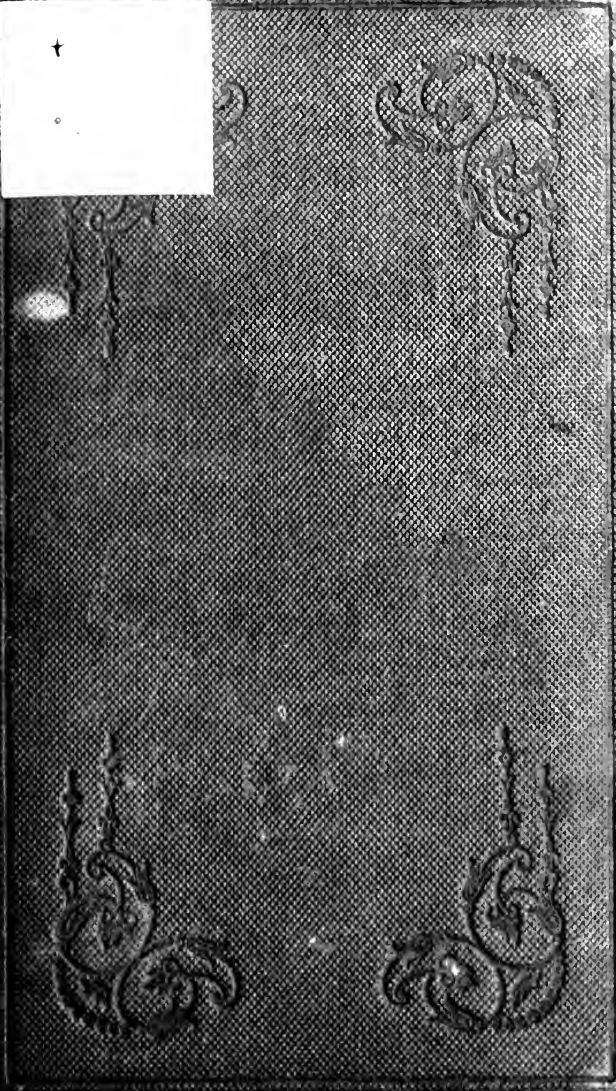


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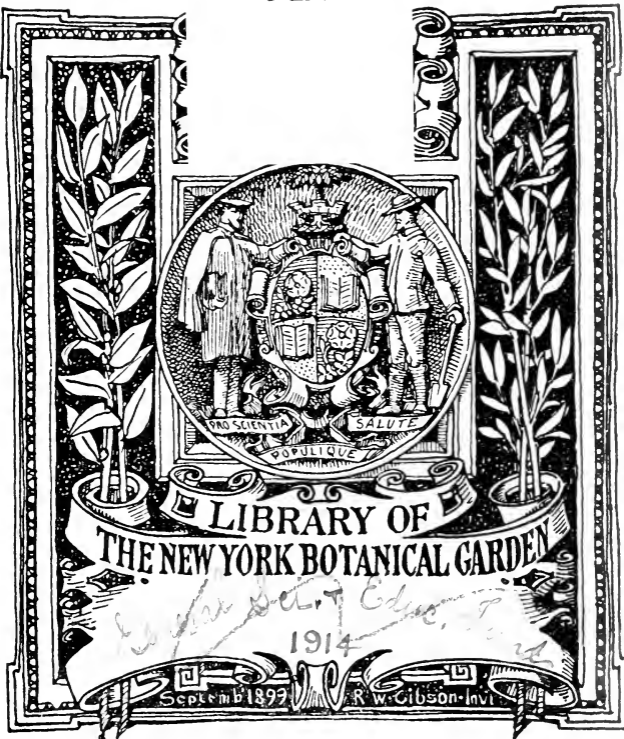


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FLOWER GARDENER.

BY

LOUISA JOHNSON.

CONTAINING

SIMPLE AND PRACTICAL DIRECTIONS

FOR

CULTIVATING PLANTS AND FLOWERS,

IN THE

NORTHERN AND SOUTHERN STATES.

ALSO

FLORA'S REVEALINGS,

HINTS FOR THE MANAGEMENT OF FLOWERS IN ROOMS,
&C., WITH BRIEF BOTANICAL DESCRIPTIONS
OF PLANTS AND FLOWERS;

THE WHOLE IN

PLAIN AND SIMPLE LANGUAGE,

EXPRESSLY CALCULATED

FOR POPULAR USE.



NEW HAVEN.

PUBLISHED BY S. BABCOCK.

1844.

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1844.

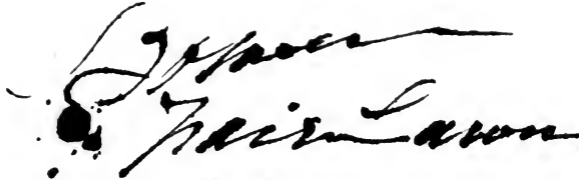
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P R E F A C E.

I HAVE been induced to compile this little work from hearing many of my companions regret that no single book contained a sufficiently condensed and general account of the business of a Flower Garden. "We require," they said, "a work in a small compass, which will enable us to become our own gardener: we wish to know how to set about every thing *ourselves*, without expense, without being deluged with Latin words and technical terms, and without being obliged to pick our way through multiplied publications, redolent of descriptions, and not always particularly lucid. We require a practical work, telling us of useful flowers, simple modes of rearing them, simply expressed, and free from lists of plants and roots which require expensive methods of preservation. Some of us have gardens, but we cannot afford a gardener: we like flowers, but we cannot attempt to take more than common pains to raise them. We require to know the hardiest flowers, and to comprehend the general business of the garden, undisturbed by fear of failure, and at the most economical scale of expense. Who will write us such a book?"

I have endeavored to meet their views; and my plan of Floriculture may be carried into effect by any lady who can command the services of an old man, a woman, or a stout boy. I have omitted the names of all tender plants; and I have given a chapter to each class of plants, in language as plain as the subject would allow. I have avoided technicality; and I have endeavored to execute my task with a due respect to economy, simplicity, and arrangement. I dedicate my work to all of my own sex who delight in flowers, and yet cannot allow themselves to enter into great expense in their cultivation.

L. JOHNSON.



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INTRODUCTION.

It has been well remarked, that a garden affords the purest of human pleasures. The study of Nature is interesting in all her manifold combinations : in her wildest attitudes, and in her artful graces. The mind is amused, charmed, and astonished in turn, with contemplating her inexhaustible display ; and we worship the God who created such pure and simple blessings for his creatures. These blessings are open to all degrees and condition of men. Nature is not a boon bestowed upon the high-born, or purchased by the wealthy at a kingly price. The poor, the blind, the halt, and the diseased, enjoy her beauty, and derive benefit from her study. Every cottager enjoys the little garden which furnishes his table with comforts, and his mind with grateful feelings, if that mind is susceptible of religious impressions. He contemplates the gracious Providence which has bestowed such means of enjoyment upon him, as the Father whose all-seeing eye provides for the lowliest of his children ; and who has placed the "purest of human pleasures" within the reach of all who are not too blind to behold his mercy. With this blessed view before his mental sight, the cottager cultivates his little

homestead. The flowers and fruits of the earth bud, bloom, and decay in their season, but Nature again performs her deputed mission, and spring succeeds the dreary winter with renewed beauty and two-fold increase. Health accompanies simple and natural pleasures. The culture of the ground affords a vast and interminable field of observation, in which the mind ranges with singular pleasure, though the body travels not. It surrounds home with an unceasing interest; domestic scenes become endeared to the eye and mind; worldly cares recede; and we may truly say—

“For us kind Nature wakes her genial power,
Suckles each herb, and spreads out every flower!
Annual for us, the grape, the rose, renew
The juice nectarious, and the balmy dew:
For us, the mine a thousand treasures brings;
For us, health gushes from a thousand springs.”

Eth. ep. i. ver. 129.

The taste for gardening in England, began to display itself in the reign of Edward III., in whose time the first work on the subject was composed by Walter de Henly. Flour-gardening followed slowly in its train. The learned Linacre, who died in 1524, introduced the damask rose from Italy into England. King James I. of Scotland, when a prisoner at Windsor Castle, thus describes its “most faire” garden:—

“Now was there maide fast by the towris wall.
A garden faire, and in the corneris set
An herbere green, with wandis long and small
Railit about and so with treeis set
Was all the place, and hawthorn hedges knet,
That lyfe was now walking there forbye,
That might within scarce any wight espie,

So thicke the bowis and the leues grene
 Berchudit all, the alleyes all that there were ;
 And myddis every herbere might be sene
 The scharpe grene swete jumpere
 Growing so fair, with branches here and there,
 That, as it seynt to a lyfe without,
 The bowis spred the herbere all about”

The Quair.

Henry VIII. ordered the formation of his garden at Nonsuch about the year 1509, and Leland says it was a “Nonpareil.” Hentyner assures us of its perfect beauty, describing one of its marble basins as being set round with “lilac trees, which trees bear no fruit, but only a pleasant smell.”

The pleasure-gardens at Theobalds, the seat of Lord Burleigh, were a unique, according to the report of Lyson. In it were nine knots exquisitely made, one of which was set forth in likeness of the king’s arms. “One might walk two myle in the walks before he came to an end.”

Queen Elizabeth was extremely fond of flowers, and her taste ever influenced that of her court. Gilliflowers, carnations, tulips, Provence and musk roses, were brought to England in her reign.

William III. loved a pleasaunce or pleasure-garden ; but he introduced the Dutch fashion of laying them out, which is still horrible in our eyes. His queen superintended in person all her arrangements in the flower-garden,—an amusement particularly delightful to her. In those days, “knottes and mazes” were no longer the pride of a parterre, with a due allowance of “pleasant and fair fishponds.”

Queen Anne remodeled the gardens at Kensington, and did away with the Dutch inventions. Hampton Court was also laid out in a more perfect state in her reign, under the direction of Wise.

Since that period, flower-gardening has progressed rapidly ; and the amusement of floriculture has become the dominant passion of the ladies of Great Britain. It is a passion most blessed in its effects, considered as an amusement or a benefit. Nothing humanizes and adorns the female mind more surely than a taste for ornamental gardening. It compels the reason to act, and the judgment to observe ; it is favorable to meditation of the most serious kind ; it exercises the fancy in harmless and elegant occupation, and braces the system by its healthful tendency. A flower-garden, to the young and single of my sex, acts upon the heart and affections as a nursery acts upon the matronly feelings. It attaches them to their home ; it throws a powerful charm over the spot dedicated to such deeply interesting employment ; and it lures them from dwelling too deeply upon the unavoidable disappointments and trials of life, which sooner or later disturb and disquiet the heart.

An amusement which kings and princes have stamped with dignity, and which has afforded them recreation under the toils of government, must become for ever venerated, and will be sought for by every elegant as well as by every scientific mind. Floriculture ranges itself under the head of female accomplishments in these our days ; and we turn with pity from the spirit which will not find in her "garden of roses" the simplest and purest of pleasures.

CHAPTER I.

GENERAL REMARKS.

IN the laying out of a garden, the soil and situation must be considered as much as the nature of the ground will admit. Let no lady, however, despair of being able to raise fine flowers upon any soil, providing the sun is not too much excluded, for the rays of the sun are the vital principle of existence to all vegetation. The too powerful rays can be warded off by the arts of invention, but we have yet no substitute for that glorious orb. Unless its warm and forcing influence is allowed to extend over the surface of the garden, all flowers wither, languish, and die. Sun and air are the lungs and heart of flowers. A lady will be rewarded for her trouble in making her parterre in the country; but in large towns, under the influence of coal smoke, shade, and gloom, her lot will be constant disappointment. She can only hope to keep a few consumptive geraniums languishing through the summer months, to die in October, and show the desolating view of rows of pots containing blackened and dusty stems.

Many soils which are harsh or arid, are susceptible of improvement by a little pains. Thus, a stiff clay, by digging well and leaving it to become pulverized by the action of the frost, and then mix-

ing plenty of ashes with it, becomes a fine mould, which I have ever found most excellent for all flowers of the hardier kind. The black soil is the richest in itself, and requires no assistance beyond changing it about a foot in depth every three years, as a flower-garden requires renewing, if a lady expects a succession of handsome flowers. The ground should be well dug the latter end of September or October, or even in November, and if the soil is not sufficiently fine, let it be dug over a second or third time, and neatly raked with a very fine-toothed rake.

Stony ground requires riddling well, and great care must be taken to keep it neat by picking up the little stones which constantly force themselves to the surface after rains. Nothing is so unbecoming as weeds and stones in parterres, where the eye seeks flowers and neatness.

Almost every plant loves sand; and if that can be procured, it enriches and nourishes the soil, especially for bulbs, pinks, carnations, auriculas, hyacinths, &c. Let it be mixed in the proportion of a third part to the whole.

If dead leaves are swept into a mound every autumn and the soap suds, brine, &c. of the house be thrown upon it, the mass will quickly decompose and become available the following year. It makes an admirable compost for auriculas, &c., mixed with garden or other mould.

If the ground be a gravelly soil, the flower garden should not slope, for stony ground requires all the moisture you can give it, while the sloping situation would increase the heat and dryness. A moist earth, on the contrary, would be improved by being sloped towards the east or west.

The south is not so proper for flowers, as a glaring sun withers the tender flowers ; but the north must be carefully avoided, and shut out by a laurel hedge, a wall, or any rural fence garnished with hardy creepers, or monthly roses, which make a gay and agreeable defence. Monthly roses are invaluable as auxiliaries of all kinds. They will grow in any soil, and bloom through the winter months, always give a delicate fragrance, and smiling even in the snow. Monthly roses will ever be the florist's delight : they are the hardiest, most delicate-looking, and greenest-leaved of garden productions ; they give no trouble, and speedily form a beautiful screen against any offensive object. No flower-garden should exist without abundance of monthly roses.

It has often been a disputed point whether flower-gardens should be intersected with gravel walks or with grass plots. This must be left entirely to the taste and means of the party forming a garden. Lawn is as wet and melancholy in the winter months, as it is beautiful and desirable in summer ; and it requires great care and attention in mowing and rolling, and trimming around the border. Gravel walks have this advantage : the first trouble is the last. They will only require an old woman's or a child's assistance in keeping them free from weeds ; and a lady has not the same fears of taking cold, or getting wet in her feet, during the rains of autumn and spring.

Many females are unequal to the fatigue of bending down to flowers, and particularly object to the stooping posture. In this case, ingenuity alone is required to raise the flowers to a convenient height ; and, by so doing, to increase the beauty and pic-

turesque appearance of the garden. Old barrels cut in half, tubs, pails, &c., neatly painted outside, or adorned with rural ornaments, and raised upon feet neatly carved, or mounds of earth, stand in lieu of richer materials, such as vases, parapet walls, and other expensive devices, which ornament the gardens of the wealthy. I have seen these humble materials shaped into forms as pleasing to the eye, and even more consonant to our damp climate, than marble vases. They never look green from time, and are renewed at a very trifling expense. A few pounds of nails and the unbarked thinnings from fir plantations, are the sole requisites towards forming any device which a tasteful fancy can dictate; and a little green paint adds beauty and durability when the bark falls from the wood it protects. I have seen fir balls nailed on to these forms in tasteful patterns; and creepers being allowed to fall gracefully over the brims, give a remarkably pleasing and varied appearance to the parterre.

Where mould is not easily to be procured—as, for instance, in towns—the tubs or receptacles may be half filled with any kind of rubble only space must be left to allow of two feet of fine mould at the top, which is quite sufficient for bulbous roots and creepers, &c. These receptacles have one powerful advantage over ground plots: they can be moved under sheds, or into outhouses, during the heavy rains or frosts of winter; and thereby enable a lady to preserve the more delicate flowers, which would deteriorate by constant exposure to inclement weather.

A lady requires peculiar tools for her light work. She should possess a light spade; two rakes, one

with very fine teeth, and the other a size larger, for cleaning the walks when they are raked, and for raking the large stones from the garden borders. A light garden fork is very necessary to take up bulbous or other roots with, as the spade would wound and injure them, whereas they pass safely through the interstices of the fork or prong. A watering-pot is indispensable, and a hoe. Two trowels are likewise necessary: one should be of a tolerable size, to transplant perennial and biennial flower roots; the other should be pointed and small, to transplant the more delicate roots of anemones, bulbs, &c.

The pruning-knife must be always sharp, and, in shape it should bend a little inwards, to facilitate cutting away straggling or dead shoots, branches, &c. The "avroncator" lately so much in request, is an admirable instrument; but it is expensive, and of most importance in shrubberies, where heavy branches are to be cut away. The Sieur Louis d'Auxerre, who wrote a work upon gardening in 1706, has a sketch of the avroncator of the present day, which he designates as caterpillar shears.

A light pair of shears, kept always in good order, is necessary to keep privet or laurel hedges properly clipped; and a stout, deep basket must be deposited in the tool-shed, to contain the weeds and clippings. These are the only tools absolutely *essential* to a lady's garden. I have seen a great variety decorating the wall of an amateur tool-house, but they must have been intended for show, not for use. A real artiste, in whatever profession she may engage, will only encumber herself with essentials. All else is superfluous.

I have reserved two especially necessary recommendations to the last, being comforts independent of the tool-house. Every lady should be furnished with a gardening apron, composed of stout Holland, with ample pockets to contain her pruning-knife, a small, stout hammer, a ball of string, and a few nails and snippings of cloth. Have nothing to do with scissors : they are excellent in the work-room, but dangerous in a flower-garden, as they wrench and wound the stems of flowers. The knife cuts slanting, which is the proper way of taking off slips ; and the knife is sufficient for all the purposes of a flower-garden, even for cutting string.

The second article which I pronounce to be indispensable, is a pair of India rubber shoes, or the wooden high-heeled shoes called "sabots" by the French. In these protections, a lady may indulge her passions for flowers at all seasons, without risk of rheumatism or chills, providing it does not actually rain or snow ; and the cheering influence of the fresh air combined with a favorite amusement, must ever operate beneficially on the mind and body in every season of the year.

CHAPTER II.

ON LAYING OUT.

THERE are many modes of adorning a small piece of ground, so as to contain gay flowers and plants, and appear double its real size. By covering every wall or palisade with monthly roses and creepers of every kind, no space is lost, and unsightly objects even contribute to the general effect of a "Plaisance." The largest flowers, such as hollyhocks, sunflowers, &c., look to the best advantage as a back ground, either planted in clumps, or arranged singly. Scarlet lychnis, campanula, or any second-sized flowers, may range themselves below, and so in graduated order, till the eye reposes upon a foreground of pansies, auriculas, polyanthus, and innumerable humbler beauties. Thus all are seen in their order, and present a mass of superb coloring to the observer, none interfering with the other. The hollyhock does not shroud the lowly pansy from displaying its bright tints of yellow and purple; neither can the sturdy and gaudy sunflower hide the modest double violet or smartly clad anemone from observation. Each flower is by this mode of planting distinctly seen, and each contributes its beauty and its scent, by receiving the beams of the sun in equal proportions.

If the trunk of a tree stands tolerably free from deep overshadowing branches, twine the creeping

rose, the late honeysuckle, or the everlasting pea round its stem, that every inch of ground may become available. The tall, naked stem of the young ash looks well, festooned with roses and honeysuckles. Wherever creeping flowering plants can live, let them adorn every nook and corner, stem, wall, and post: they are elegant in appearance, and many of them, particularly clematis, are delicious in fragrant scent.

If flowers are planted in round or square plots, the same rule applies in arranging them. The tallest must be placed in the centre, but I recommend a lady to banish sunflowers and hollyhocks from her plots, and consign them to broad borders against a wall, or in clumps of three and three, as a screen against the north, or against any unsightly object. Their large roots draw so much nourishment from the ground, that the lesser plants suffer, and the soil becomes quickly exhausted. Like gluttons, they should feed alone, or their companions will languish in starvation, and become impoverished. The wren cannot feed with the vulture.

The south end or corner of a moderate flower garden should be fixed upon for the erection of a root house, which is not an expensive undertaking, and which forms a picturesque as well as a most useful appendage to a lady's parterre. Thinnings of plantations, which are every where procured at a very moderate charge, rudely shaped and nailed into any fancied form, may supply all that is needful to the little inclosure; and a thatch of straw, rushes, or heather, will prove a sure defense to the roof and back. There a lady may display her taste by the beauty of the flowers which she may train through the rural frame-work. There, the moss-rose, the jessamine, the honeysuckle, the con-

volvulus, and many other bright and beautiful flowers may escape and cluster around her, as she receives rest and shelter within their grateful lattice-work. There, also, may be deposited the implements of her vocation; and during the severe weather, its warm precincts will protect the finer kinds of carnations, pinks, auriculas, &c., which do not bear the heavy rains, or frost of lengthened duration, without injuring the plant.

Flowers are divided into three classes:—annuals, biennials, perennials.

Annuals are those flowers which are raised from seeds alone, in the spring, and which die in the autumn. They are again divided into three classes; tender and more curious kinds; the less tender or hardier kinds; and the hardiest and common kinds.

Biennials are those flowers which are produced by seed, bloom the second year, and remain two years in perfection; after which they gradually dwindle and die away.

Some sorts, however, of the biennials, afford a continuation of plants by offsets, slips, and cuttings of the tops, and by layers and pipings, so that, though the parent flower dies, the species are perpetuated, particularly to continue curious double-flowered kinds, as for instance, double rockets, by root offsets, and cuttings of the young flower-stalks; double wallflowers by slips of the small top shoots; double sweet-williams by layers and pipings; and carnations by layers.

Perennials are those flowers which continue many years, and are so propagated by root offsets, suckers, parting roots, &c., as will be more fully particularized under the head of *Perennials*.

It has been a debated point among florists, whether plots or baskets should be devoted each to a particular variety of flower, or receive flowers of different kinds, flowering at separate seasons. Thus, many ladies set apart one plot of ground for anemones only—another plot receives only pansies, and so on. There is much to be said on both sides the question.

If a plot of ground is devoted to one variety of flower only, you can give it the appropriate mould, and amuse your eye with its expanse of bright coloring. Nothing is more beautiful than a bed of pansies, or a bed of the bright and glowing scarlet verbena; nothing can exceed the gay and flaunty tints of a bed of tulips, or the rich hues of the lilac and the white petunia. A large space of garden allows its possessor to revel in separate beds of flowers, whose beauty is increased two-fold by masses; and from that very space, the eye does not so easily discover the melancholy appearance of one or more plots exhibiting nothing but dark mould, and withered stems, arising from the earlier sorts being out of bloom.

But in less spacious gardens, this gloomy and mournful vacuum must be avoided. Every border and plot of ground should exhibit a gay succession of flowers in bloom; and that object can only be effected by a pretty equal distribution of flowers of early and late growth. As the May flowers droop, the June productions supply their place; and these, again, are followed in succession till the Golden rod and Michaelmas daisy announce the decadence of the parterre for the year.

Yet every flower may be supplied with its favorite soil, with a little patience and observation. A

light soil suits all descriptions very well; and I never yet found disappointment in any description of earth which was thoroughly well dug, and dressed yearly from the mound of accumulated leaves and soap-suds, alluded to in the first chapter. I particularly recommend a portion of sand mixed with the heap. All bulbs, carnations, pinks, auriculas, ranunculuses, &c., love a mixture of sand. I know no flowers of the hardy class which reject it. Mix sand well into your borders and plots, and you will not fail to have handsome flowers.

I subjoin a list of common flowers appertaining to each month, in order to fill the borders with one or more roots of each variety. I do not include the annuals.

JANUARY.

In this month the following flowers are in blow:—

Single Anemones	Primroses
Winter Cyclamens	Winter Hyacinth
Michaelmas Daisy	Narcissus of the east
Hepaticas	Christmas rose

FEBRUARY.

Single Anemones	Single yellow Gilliflower
Forward Anemones	Single Liverwort
Persian Iris	Winter Aconite
Spring Crocus	Hepaticas

MARCH.

Bulbous Iris	Jonquils
Anemones of all sorts	Yellow Gilliflower
Spring Cyclamens	Narcissus of several kinds
Liverwort of all sorts	Forward Bear's-ears
Daffodils	Forward Tulips
Crowfoots	Single Primroses of divers
Spring Crocus	colors
Hyacinths of all sorts	

APRIL.

Daisies	Double Liverworts
Yellow Gilliflowers	Primroses
Narcissus of all sorts	Honeysuckles
Forward Bear's-ears	Tulips
Spring Cyclamens	Hyacinths
Crocus, otherwise called Saff- ron-flowers	Single Jonquils
Anemones of all sorts	Crown-Imperial
Iris	Yellow Gilliflowers, double and single
Pansies	Pasque-Flowers
Daffodils	March Violets

MAY.

Anemones	Double Jacea, a sort of Lych- nis
Gilliflowers of all sorts	Pansies
Yellow Gilliflowers	Peonies of all sorts
Columbines	Ranunculuses of all sorts
Asphodils	Some Irises: as those which we call the Bulbous Iris, and the Chamæ-Iris
Orange, or flame-colored Lilies	Italian Spiderwort, a sort of Asphodil
Cyanuses of all sorts	Poet's pinks
Hyacinths	Backward Tulips
Day Lilies	Julians, otherwise called Eng- lish Gilliflowers
Bastard Dittany	
Daisies	
Lily of the valley	
Mountain Pinks	

JUNE.

Snap-dragons of all sorts	Climbers
Wild Tansies	Cyanuses of all sorts
Pinks, otherwise called Lych- Irises	Foxgloves of all sorts
[nises	Mountain Lilies
Roses	Gilliflowers of all sorts
Tuberoses	Monks'-hoods
Pansies	Pinks of all sorts
Larkspur	Candy-tufts
Great Daises	Poppies

JULY.

Jessamine	Pinks of the Poets
Spaniah Broom	Bee-flowers
Basils	Sea-hollies

Bell flowers	Foxgloves
Indian Jacea	Wild Poppies
Great Daises	Everlastings
Monks'-hoods	Roses
Pinks	Dittanies
Scabinses	Bindweeds
Nigellas	Lilies of St. Bruno
Cyclamens	Tricolors
Lobel's Catch-flies	Squills
Lilies of all sorts	Motherworts
Apples of Love	Climbers
Comfrey	Oculus Christi
Poppies	Camomile
Snap-dragons	Sunflowers
Double Marigolds	Belvederes
Amaranthuses	Gilliflowers of all sorts
Hellebore	Thorn-apple
Ox-eyes	Valerian

AUGUST.

Oculus Christi, otherwise called Starwort	Indian Narcissus
Belvederes	Foxgloves
Climbers of all sorts	Cyclamens
Apples of Love	Passion flowers
Marvels of Peru	Everlastings
Pansies	Tuberoses
Ranunculuses	Monks'-hood
Double Marigolds	Indian Pinks of all the kinds
Candy-tufts	Bindweed
Autumn Cyclamens	Passvelours
Jessamines	Great Daises
Sunflowers, vivacious and annual	White Bell-flower
	Autumnal Meadow Saffron
	Gilliflowers

SEPTEMBER.

Tricolors	Amaryllis
Love Apples	Autumnal Narcissus
Marvel of Peru	White Bell-flowers
Monks'-hood	Indian Pinks
Narcissus of Portugal	Indian Roses
Snap-Dragons	Amaranthus
Oculus Christi	Pansies

Basils	Passion-flower
Belvederes	Autumnal Crocus
Great Daisies	Thorn apple
Double Marigolds	Carnations
Monthly Roses	Ranunculuses planted in May
Tuberoses	Colchicums

OCTOBER.

Tricolors	Pansies that were sown in August
Oculus Christi	Passion flower
Snap-Dragons	Passvelours
Colchicums	Double Marigolds
Autumn Crocus	Some Pinks
Autumnal Cyclamens	Amaryllis
Monks' hood	Autumnal Narcissus
Indian Pinks	

NOVEMBER.

Snap-Dragons	Double Violets
Double and Single Gilliflow- ers	Single Anemones of all sorts
Great Daisies	Winter Cyclameus
Pansies sown in August	Foward Hellebore
Monthly Roses	Golden Rod

Rabbits are an intolerable nuisance in a flower garden, and in some country places they abound most destructively. A light wire fence about two feet high, closely lattice-worked, or a net of the same height, carried around the garden, is a sure defence from these marauders. But where these conveniences are unattainable, there are other modes which answer the purpose, but they require a little trouble and patience.

It is the well-known nature of Rabbits and Hares to dislike climbing or entangling their feet; and very simple inventions deter them from attempting to gnaw the roots and the hearts of flowers. They will not walk upon straw or ashes strewed

thickly round any plant: they equally dislike a fence of sticks placed around a plot, with bits of white paper or card fastened to each stick; or a string carried around the sticks a foot or two high. If they cannot creep under a slight fence, they never attempt to leap over it. If a stick is run into the ground close to a plant, and other sticks are slanted from the ground towards that centre, the plant will remain untouched, be the frost of ever so long duration.

Snails are disagreeable intruders, but the following method is an exterminating war of short duration:—

Throw cabbage leaves upon your borders over night; in the morning early, you will find them covered underneath with snails, which have taken refuge there. Thus they are easily taken and destroyed.

Earwigs are taken in numbers by hanging gallipots, tubes, or any such receptacle, upon low sticks in the borders over night. In these they shelter themselves, and are consequently victimized in the morning. The gallipots, broken bottles, &c. should be placed upon the stick like a man's hat, that the vermin may ascend into them.

Ants are very great enemies to flowers; but I know no method of attacking them, except in their own strongholds, which I have always done with cruel intrepidity and success. My only plan was to lay open the little ant-hill, and pour boiling water upon the busy insects, which destroyed at once the commonwealth, and the eggs deposited within the mound. In some places ants are extremely large

and abundant and they quickly destroy the beauty of a flower, by attacking its roots and heart.*

Mildew and blight infest roses and honeysuckles. Soap-suds thrown over rose-bushes, heavy waterings with tobacco-water, or the water in which potatoes have been boiled, is successful in a degree, but the best way is a very troublesome one to persevere in. Pinch every leaf well which curls up, by which you may know a small magot is deposited therein. By so doing you destroy the germ of a thousand little monsters.

Mildew and blight come from the east; therefore honeysuckles should be sheltered from that aspect; for as they rise and spread widely, they are not so manageable as a rose-bush. A mass of luxuriant honeysuckles is beautiful to the eye and delicious in fragrance; but covered with mildew, it is a blackened and miserable object. Mildew, fortunately, does not make its appearance every spring; but once in four or five years it comes as a plague, to desolate the garden. A great deal may be raked away, if taken off as soon as it spreads its cobweb over these lovely flowers; but it should be done without delay.

I cannot lay too great stress upon the neatness in which a lady's garden should be kept. If it is not beautifully neat, it is nothing. For this reason keep every plant distinct in the flower-bed; let every tall flower be well staked, that the wind may

*The Emperor Pagonatus, who wrote a treatise upon agriculture, assures us, that to clear a garden of ants, we should burn empty snail shells with storax wood, and throw the ashes upon the ant-hills, which obliges them to remove. I never tried this method.

not blow it prostrate; rake away dead leaves from the beds, and trim every flower-root from discolored leaves, weeds, &c.; remove all weeds and stones the moment they appear, and clear away decaying stems, which are so littering and offensive to the eye. There is always some employment of this kind for every week in the year.

Old iron rods, both large and small, are to be procured cheap at the ironmongers. These old rusty rods, painted green, or lead color, are excellent stakes for supporting flowers, and do not wear out. The slighter rods are very firm, upright supporters for Carnations, Pinks, &c., while the taller and larger rods are the firmest and best poles for hollyhocks, sunflowers, and the larger class of plants. Fix the flower stem to its stake with string, or the tape of the bass matting, soaked in water to prevent its cracking, and tie it sufficiently tight to prevent the wind tearing it from its position. Tie the large stems in three places for security.

The term *Deciduous*, applied to shrubs, signifies that they shed their leaves every winter.

Herbaceous plants, signify those plants whose roots are not woody, such as stocks, wallflowers, &c. &c.

Fibrous-rooted plants, are those whose roots shoot out small fibres, such as Polyanthus, violets, &c.

Tuberous-rooted plants, signify those roots which form and grow into little tubes, such as Anemones, Ranunculuses, &c.

PERENNIALS.

Perennials are flowers of many years' duration ; and they multiply themselves most abundantly by suckers, offsets, parting the roots, &c. They require little trouble beyond taking care to renew the soil every year or two by a somewhat plentiful supply from the compost heap ; and by seperating the offsets, and parting the roots in autumn, to strengthen the mother plant. When the flowers are past and the stems have decayed, then the operation may take place. Choose a showery day for transplanting the roots, or give them a moderate watering to fix them in their fresh places. When you transplant a flower root, dig a hole with your trowel sufficiently large to give the fibres room to lay freely and evenly in the ground.

I have, throughout my little work, laid great stress upon possessing a heap of compost, ready to apply to roots and shrubs every spring and autumn. Wherever the soil is good, the flowers will bloom handsomely ; and no lady will be disappointed of that pleasure, if a compost heap forms one essential, in a hidden corner of the flower garden. If you raise your perennials from seed, sow it in the last week in March, in a bed of light earth, in the open ground. Let the bed be in a genial, warm situation, and divide it into small compartments ; a compartment for each sort of seed.

Sow the seed thin,—and rake or break the earth over them finely. Let the larger seed be sown half an inch deep, and the smaller seed a quarter of an inch. Water the beds in dry weather often with a watertng pot, not a jug. The rose of the water-

ing pot distributes the water equally among the seedlings; whereas, water dashed upon them from a jug falls in masses, and forms holes in the light earth, besides prostrating the delicate seedling.

About the end of May, the seedlings will be fit to remove into another nursery bed, to gain strength till October; or be planted at once where they are to remain. Put the plants six inches apart, and water them moderately, to settle the earth about their roots.

But it is rarely required to sow seed for perennial plants,—they multiply so vigorously and quickly of themselves, by offsets; and cuttings may be made of the flower stalks in May and June in profusion.

The double *Scarlet lychnis*, and those plants which rise with firm flower stems, make excellent cuttings, and grow freely when planted in moist weather. Double *Rockets*, *Lychnidea*, and many others succeed well.

Carnation and *pink* seedlings must be taken great care of. They will be ready to plant out about the middle of June, and as innumerable varieties spring from sowing seed, they should be planted carefully in a bed by themselves six inches asunder, and they will flower the following year, when you can choose the colors you most approve. Carnations properly rank under the head of biennials; but pinks are strictly perennial plants, and much has been written upon this hardy and beautiful flower. It comes originally from a temperate climate, therefore the pink loves shade; the fervid sunbeams cause its flowers to languish and droop. You may give them an eastern aspect.

Be careful to watch pinks when they are budding, and do not allow two buds to grow side by

side. Pinch off the smaller bud, which would only weaken its companion. Keep the plants free from decayed leaves, and gently stir the earth round them occasionally with your small trowel. This operation refreshes them. Stake them neatly, that they may not fall prostrate after rain.

If you wish to preserve any particular pink, let it grow in a pot, or upon a raised platform, that it may be placed beyond the reach of hares, rabbits, or poultry, and be more easily sheltered from long and severe frost or rains in winter, and from the dry heats in summer, either of which destroys the beauty of the flower. The pots can be sunk in the ground in fine weather. Do not hide your pinks among larger flowers; let them be distinctly seen. If you water pinks too much, their roots become rotten; and if you suffer them to be too dry, they become diseased. Beware of extremes. The best rule is to keep them just moist. A fine pink should not have sharp-pointed flower leaves; they should be round and even at their edges, and the colors should be well defined, not running one into the other. The flower should be large; it should possess a great many leaves, and form a sort of dome. Piping and slipping is the most expeditious mode of propagating plants from any selected pink.

Pansies, violets, &c. are very easily propagated by parting the roots when the flowers are past. Pansies are very beautiful flowers; and cuttings of their young shoots will grow very freely if kept moist and shaded for some little time. By refreshing the soil every year, you insure large flowers. Pansies and violets bloom early in the spring.

Hepaticas must be parted like violets. They appear so very early in the year, that no garden should

exist without these gay and modest flowers. The leaves appear after the flower has past away.

The *Polyanthus* blooms among the early tribe. In planting this flower, be careful to insert the roots deep in the soil, so that the leaves may rest upon it, for the roots are produced high upon the stem, and those roots must be enabled to shoot into the soil. The polyanthus, like almost every other flower, loves a good soil, with a mixture of sand.

In dividing these fibrous-rooted perennial plants, take only the strong offsets, with plenty of fibres attached to them.

Polyanthuses, auriculas, double daisies, double camomile, London pride, violets, hepaticas, thrift, primroses, gentianella, &c., succeed well, taken up and divided in September, for they will all have done flowering by that time. Indeed all perennial fibrous-rooted plants may be taken up in October, to have their roots parted, and the soil refreshed round them.

Peonies, and all knob-rooted plants, should be taken up in October, to part their roots and transplant them to their intended positions.

The saxifrage has very small roots, which are apt to be lost in borders, if not very carefully looked after. Like the anemone, &c., sift the earth well for them.

Dahlias require a word or two upon their culture. They love sand, therefore allow them plenty of it, but do not put manure to their roots, which throws them into luxuriant leaf and stem, to the deterioration of the flower. Peat mould is good if you can obtain it, to mix with the sand, as it assists the flower in developing stripes and spots. Train each plant upright, upon one stem only, and give

it a strong stake to support its weight, which soon succumbs under gusts of wind. Plant them in open and airy places. When the stems become black, take them up,—separate the roots, and plunge them into a box of ashes, barley chaff, or sand, to protect them through the winter. Plant them out in May.

Dahlias grow from cuttings, which require care and a hot-bed to do well, but they multiply themselves very sufficiently without that trouble.

It is a great perfection to see every tall plant in a flower-garden well staked, and trimmed from dead, straggling shoots. Let no branches trail upon the border, but, as in the case of Chrysanthemums, cut away the lowest branches or shoots, that each plant may stand erect and neat in its order, without intermeddling in its neighbor's concerns. There will be plenty of employment all through the summer in watching the growth of your plants, in cutting away decayed stems, and trimming off dead leaves. Let nothing remain in the flower's way after the brightness of its bloom has past by; cut off the drooping flower before it runs to seed, which only tends to weaken the other flowers, and leave only the finest flower to produce seed on each plant.

Perennials grow remarkably fine always in newly turned-up ground, but they gradually degenerate, if they are allowed to remain above two years without replacing the substance they have exhausted in the soil. Add every year to that substance, by liberal supplies from the compost heap.

Be careful to multiply your supply of jasmines, honeysuckles, &c., by cuttings in their due season.

I subjoin a list of the hardier sorts of fibrous-rooted Perennials, eligible to adorn a garden, from

which my readers may stock their borders. At the end of my work, however, I shall add a long list of plants alphabetically arranged.

LIST OF HARDY PERENNIALS.

<i>Aster</i> , or Starwort	Double white
Large blue Alpine	<i>Double ragged Robin</i>
Common Starwort, or Michaelmas Daisy	<i>Campanula</i> , or Bell-flower
Early Pyrenean	Double blue
Blue Italian Starwort	Double white
Catesby's Starwort	Double blue, and white nettled-leaved
Dwarf narrow-leaved Starwort	<i>Caltha</i> , Double-flowered
Midsummer Starwort	Marigold
Autumnal White Starwort, with broad leaves	<i>Cassia of Maryland</i>
<i>Tripolian</i> Starwort	<i>Pinks</i> , double pheasant's eye
Divaricated-branched	Dobson
Virginian Starwort, with spiked blue flowers	Deptford
Early blue Starwort	Cob white
Rose Starwort	Red cob
Latest Starwort, large blue flowers	White stock
New England Starwort	Damask
Red flowering	Mountain
<i>Apocynum</i> , Dogsbane	Matted
Red-flowering	Old man's head
Orange-colored	Painted lady
Syrian	Clove pink, and many other varieties
<i>Arum</i> , Italian large-veined leaf	<i>Stock July-flower</i> , the Brompton
<i>Asclepias</i> , Swallow-wort	Double Scarlet Brompton
White	Single scarlet
Yellow	Purple
<i>Astragalus</i> , Milk-vetch	White Brompton
<i>Alysson</i> , White	Queen stock
Yellow	Purple double
Violet	Striped double
<i>Borage</i> , the Eastern	Single of each sort
<i>Bachelor's Button</i>	Twickenham stock
Double Red	<i>Lichnidea</i> , early blue
	Spotted-stalked, with purple spikes of flowers
	Virginia, with large umbels

- Low trailing purple
 Carolina, with stiff shining
 leaves, and deeper purple
 flowers
Cyanus, broad-leaved
 Narrow-leaved
Lychnis, or *Campion*
 Single scarlet lychnis
 Double scarlet lychnis
 Catchfly, double flowers
Hepaticas, single white
 Single blue
 Single red
 Double red
 Double blue
Lineria, toad flax
 Purple
 Yellow
Bee Larkspur
Fraxinella, white
 Red
Gentiana, great yellow
Gentianella, blue
Globularia, blue daisy
Fox-glove, red
 White
 Iron-colored
Perennial Sun flower
 Double yellow and several
 other species
Cyclamen, red
 White
Goldy Locks
Chelone, white
 Red
Lily of the Valley, common
 Double-flowering
Solomon's Seal, single
 Double
Filipendula, or *Dropwort*
Columbines, common blue
 Double red
 Double white
 Double striped
 Starry, double and single
 Early-flowering Canada
Thalictrum, feathered colum-
 bines
Pulsatilla, blue Pasque flower
Orobus, bitter vetch
Saxifrage, double white
 Thick leaved
 Purple
Veronica, upright blue
 Dwarf blue
 Hungarian
 Blush
Golden Rod, many species
Valerian, red garden Valerian
 White garden
Rudbekia, American sun-
 flower
 Dwarf Virginia, with large
 yellow flowers
 Dwarf Carolina, with nar-
 row red reflexed petals,
 and purple florets
 Virginia, with yellow rays
 and red florets
 Tall yellow, with purple
 stalks, and heart-shaped
 leaves
 Taller, with yellow flowers
 and large five-lobed
 leaves, and those on the
 stalks single
 Tallest yellow, with nar-
 rower leaves, which are
 all of five lobes
Pulmonaria, Lungwort
 Common
 American
Monarda, purple
 Scarlet
Ephemeron, Spider-wort, or
 flowers of a day
 White
 Blue

- Jacea*, American knapweed
Primrose, double yellow
 Double scarlet
 White
Polyanthus, many varieties
Auriculas, many varieties
Violets, double blue
 Double white
 Double red
 Russian
 Banksia
Violet the major
London-pride, or None-so-pretty
Day-lily, red
 Yellow
Fumitory, the yellow
 White
 Bulbous-rooted
 American forked
Aconite, Monk's-hood, or Wolf's-bane
 Blue monk's-hood
 Yellow
 White
 Wholesome wolf's-bane
Winter Aconite
Hellebore, or Bear's foot
 Common black hellebore
 Green-flowered
White Hellebore
Christmas Rose
Geranium, Crane's-bill
 Bloody crane's-bill
 Blue
 Roman
 Bladder-cupped
Daisies, common double red
 garden daisy
 White
 Double variegated
 Cock's-comb daisies, white and red
 Hen and chicken, white and red
Dahlias, many varieties
Peony, double red
 Double white
 Double purple
 Male, with large single flowers
 Sweet smelling Portugal
 Double rose-colored
Silphium, bastard Chrysanthemum
Iris, Fleur-de-lis or flags
 The German violet colored
 Variegated, or Hungarian, purple and yellow
 Chalcedonian iris
 Greater Dalmatian iris
 There are several other varieties of Irises, all very hardy and very beautiful plants
Cardinal Flowers, scarlet
 Blue
Rocket, double white
Balm of Gilead, sweet-scented; must be sheltered in winter.
Everlasting Pea
Eupatorium, several varieties
Eryngo, blue
 White
 Mountain, purple and violet
 There are some other varieties.
Snap Dragon, or Calf's snout
 Red
 White
 Variegated
Moth Mullein
Angelica
Asphodellus, King's spear

<i>Lupins</i> , perennial, blue-flow- ered	Large yellow-flowered
<i>Ononis</i> , Rest-har	<i>Tradescantia</i> , or Virginia spi- derwort

The Saxifrage is propagated by cuttings and offsets, which the roots produce abundantly. Take the offsets and plant them out in August. The double white saxifrage is a beautiful flower, and blooms early in the spring. The pyramidal saxifrage is a very handsome decorative flower, but it must be planted in little clumps to make a showy appearance.

October is the busy month for transplanting and removing the offsets of all perennial and biennial plants. In this month every flower of summer has passed away, and the garden is free to receive all new arrangements in its future dispositions. Golden rod, Michaelmas daisies, everlasting sun-flower, and other branching plants, will require taking up every four years, to part the main root into separate plants, and replace them in the ground again. Peonies, lilies of the valley, fraxinellas, monk's-hood, flag-leaved irises, &c., must be increased or removed when required. All this is most effectually done in October.

In the same month, finish all that is to be effected among the perennial tribe. Campanulas, lych-nises, polyanthuses, violets, aconites, cyclamens, gentianella, yellow gentian, double daisies, hepaticas, saxifrage, &c., must be attended to, and propagated, by dividing the roots, before October closes. November is the season of fogs, and severe frosts: if a lady is prudent, she will perform all these needful operations in October, and November will have no alarms for her.

All the double-flowering plants, such as double

sweet-williams, double rockets, double scarlet lych-nis, &c., should be placed in sheltered situations in October, to weather out the storms of winter. Double flowers are very handsome, and deserve a little care.

The most charming little perennial flower which can adorn a lady's garden, is the scarlet verbena, but it is very difficult to preserve through the winter. Its beauty, however, repays the care which may be bestowed upon it. This tender plant—the only really tender root which I admit into my work—is not only desirable from its fine, full scarlet blossoms, but it blooms from April to November. The scarlet verbena loves a rich, light, dry border or bed, in a sunny situation; they delight also in rock-work, where they have been known to exist through the winter. Plant the roots about six inches apart in the middle of April, and keep pegging down the shoots as they throw themselves along the bed. A profusion of flowers and plants are produced by this means. A bed or border sloping to the south is the best situation for the scarlet verbena.

CHAPTER III.

BULBS AND TUBEROUS-ROOTED FLOWERS—

PERENNIALS.

I SHALL give the bulbous and tuberous-rooted flowers a chapter to themselves. They are the earliest treasures of the flower-garden, and deserve especial notice. There was a period when two hundred pounds was offered for a hyacinth root, and even the enormous sum of six hundred pounds was given for a *Semper Augustus* tulip, by the Dutch tulip fanciers. But though a few florists are still particularly nice with respect to their bulbs, the time is past for paying such splendid prices; and such an inexhaustible variety offer themselves to our notice now, that we are somewhat puzzled in making a choice collection. Seed produces immense numbers yearly, and an infinite variety of new colors in each species. The florist is lost in admiration of the magnificent blooms which meet the eye in every flower-garden which is carefully attended to.

Bulbs love a mixture of garden soil and sand, well mixed, and dug about two spades deep to lighten it. Break the mould fine, and rake the surface even. Plant the bulbs four inches deep, and let them be six inches apart, placing the bulb with care into the dibbled hole, and pressing the earth gently round each. All bulbs should be replanted in September, and taken out of the ground when

they have done flowering. When the leaves and stems decay, dig them neatly up, in dry weather, with your garden fork; take the offsets carefully from the main root; spread them out to dry on a mat, and put them in a cool, dry place, to plant again in September.

The common bulbs, such as *Snowdrops*, *Crocuses*, &c., may be left two or three years untouched; but at the end of that period take up, to separate the offsets and small roots from the mother plants. You can replant them immediately, taking care to thin the clumps, and separate each root six inches from its neighbor, that they may rise healthy, and throw out fine blooms.

Narcissuses, *Jonquils*, and *Iris*es, may also remain two years untouched; but if annually taken up, they will flower finer, and for these reasons:

By taking up your bulbs as soon as their leaves and stems decay, it not only allows you to separate the offsets, which weaken the parent bulb, but it prevents their receiving any damage from long drought, or the equally destructive moisture of heavy rains, which would set them growing again before their time, and exhaust them. The two or three months in which they are laid by contributes to their strength, by allowing them that period of complete rest.

The autumn-flowering bulbs, such as the *Colchicum*s, the *Autumnal Crocus*, the *yellow Autumnal Narcissus*, &c., should be taken up in May or early in June, when they are at rest. Transplant them now if you wish to remove them; part the offsets, and plant them six inches apart. If you keep them out of the ground, put them in a dry, shady place till the middle of July or August, when you must plant them again, to blow in the autumn.

Be careful to take up bulbs as soon as the leaves decay. If they are incautiously left in the ground beyond that period, they begin to form the bud for the next year's flowers; and the check of a removal would injure them. They might produce flowers in due time, but they would be weakly.

The little offsets will not flower for a year or two. They may be consigned to a nursery-bed to remain for that time, in order to swell and strengthen by themselves.

If you wish to procure new varieties from seed, it must be sown in August. The healthiest flower-stalks should be chosen, and deposited in pots or boxes of fine light earth, for the convenience of removing under shelter in wet or frost. Keep the pots or boxes in the shade during the heats, but as the cold weather advances, remove them to a warm sheltered spot. Litter will shelter them from the frost, if you cannot command any other covering. The plants will appear early the following May: they must be kept very clear from weeds, and be moderately watered in dry weather. These seedlings must be transplanted every summer to be thinned, and placed farther apart from each other, till they blow, when they may be removed into the flower-beds.

This method is troublesome, and requires patience. Tulip seedlings are seven years before they flower, and a lady may find her patience severely tried in waiting for their blooms. Seven years is a large portion of human life. If you can persevere, however, you will be rewarded by beautiful varieties of new colors and stripes.

Fine tulips should have six leaves, three on the outside and three on the inside, and the former

should be broader than the latter. The stripes upon the tulip should also be defined and distinct, not mixing with the ground tints.

Hyacinth seedlings are four years before they flower: this is not so harassing a period as the tulip requires; but every pleasure has its counter-balance. If you will have fine flowers, you must wait for them. These bulbs love a sunny situation.

The *Orchis* tribe prefer a moist ground and a northern aspect. Columella says, that when orchis bulbs are sown in autumn, they germinate and bear flowers in April.

The *Colchicums* or narcissus are hardy bulbs, and will grow in any sort of ground; only the better the soil is, the finer they will flower.

The *Guernsey Lily* and *Belladonna* will not thrive in the open ground, therefore it is needless to speak of those very splendid flowers.

The *Lily of the valley*, though scarcely to be classed among the lily tribe, is a beautiful flower, and as fragrant as it is lovely. They must be multiplied by dividing the roots, which should be parted with a knife, as they are very intricate: do this in December. Plant them three inches deep in the ground and disturb them as little as you can help, as they do not like to be often moved. They are larger in their flowers when grown in the shade, but they are sweeter in perfume in the sun's full rays. Thin, broad leaves are sufficient shelter to the flowers.

All bulbs love salt: be careful, therefore, to throw a portion of common salt or brine upon your compost heap. My cousin, Cuthbert W. Johnson, Esq., in his "Observations on the Employment of Salt," quotes a passage in a letter addressed to him

by Mr. Thomas Hogg, the eminent florist, upon the advantages of salt in the cultivation of flowers. I will transcribe it here :—

“From the few experiments that I have tried with salt as a garden manure, I am fully prepared to bear testimony to its usefulness. In a treatise upon flowers, published about six years since, I remarked, that the application of salt, and its utility as a manure, was yet imperfectly understood. It is a matter of uncertainty, whether it acts directly as a manure, or only as a kind of spice or seasoning, thereby rendering the soil a more palatable food for plants.

“The idea that first suggested itself to my mind, arose from contemplating the successful culture of hyacinths in Holland. This root, though not indigenous to the country, may be said to be completely naturalized in the neighborhood of Haerlem, where it grows luxuriantly in a deep, sandy, alluvial soil: yet one great cause of its free growth, I considered, was owing to the saline atmosphere: this induced me to mix salt in the compost; and I am satisfied that no hyacinths will grow well at a distance from the sea without it. I am also of opinion, that the numerous bulbous tribe of Amaryllisses, especially those from the Cape of Good Hope, Ixias, Aliums, which include Onions, Garlic, Shalots, &c., Anemonies, various species of the Lily, Antholyza, Colchicum, Crinum, Cyclamens, Narcissus, Iris, Gladiolus, Ranunculus, Scilla, and many others, should either have salt or sea sand in the mould used for them.

“I invariably use salt as an ingredient in my compost for carnations; a plant which, like wheat, requires substantial soil, and all the strength and heat of the summer, to bring it to perfection; and I believe I might say, without boasting, that few excel me in blooming that flower.”

Colchicums, the Autumnal Narcissus, Amaryllis, and the Autumn Crocus, should be planted in August, to blow in September and October.

Replant all the bulbous tribe by the end of October, at the latest. Choose a mild, dry day to put them in the ground, and let each bulb be six or nine inches distance from its companion. All bulbs become weak by being placed too closely together, the soil becoming soon exhausted.

Bulbs of the more choice varieties are better attended to if they can be placed in beds or compartments by themselves; for they are more easily sheltered from frost and rain when in a body. The eye, also, is more delighted by the beautiful variety *en masse*. Their favorite soil, too, can be composed and preserved for them more exclusively, unexhausted by the roots of larger plants around them. Some of the commoner sorts can be planted out in patches, to add to the gay appearance of the borders, among the spring flowers.

Martagons, orange lilies, and bulbs of tall growth, should never be planted among the smaller tribe; their large bulbs would exhaust the soil, and weaken the smaller flowers. They look very handsome in borders and plots, placed near or in their centre.

LIST OF BULBOUS AND TUBEROUS-ROOTED FLOWERS.

<i>Amaryllis</i> , comprising the autumnal yellow Narcissus	bluish flower and golden stigma, which is the saffron
Spring ditto	
<i>Crocus vernus</i> , or spring-flowering crocus	Common autumnal crocus, with deep blue flowers
Common yellow	With light blue flowers
Large yellow	Many flowered
Yellow, with black stripes	<i>Snowdrop</i> , the small spring flowering
White	Common single
White, with blue stripes	Double
Blue with white stripes	<i>Leucojum</i> , or great summer snowdrop
Deep blue	Great summer snowdrop, with angular stalks; a foot high, and two or three flowers in each sheath
Light blue	Taller great snowdrop, with many flowers
White, with purple bottom	
Scotch, or black and white striped	
Cream-colored	
<i>Autumnal flowering Crocus</i> , of the following varieties:—	
True saffron crocus, with	

<i>Ornithogalum</i> , or Star of Bethlehem	Black, chequered with yellow spots
Great white pyramidal, with narrow leaves	Yellow, chequered with purple
White, with broadsword-shaped leaves spreading on the ground	Dark purple, with yellow spots, and flowers growing in an umbel
Yellow	Persian lily, with tall stalks, and dark purple flowers growing in a pyramid
Pyrenean, with whitish-green flowers	Branching Persian lily
Star of Naples, with hanging flowers	<i>Corona Imperialis</i> , crown imperial, a species of <i>Fritillaria</i>
Umbellated, producing its flowers in umbels, or spreading bunches, at the top of the stalk	Common red
Low yellow umbellated	Common yellow
<i>Erythronium</i> , dens canis, or dog's tooth	Yellow-striped
Round-leaved, with red flowers	Sulphur-colored
Same, with white flowers	Large-flowering
The same, yellow	Double of each variety
Long narrow-leaved, with purple and with white flowers	Crown upon crown, or with two whorls of flowers
Grape Hyacinth	Triple crown upon crown, or with three tiers of flowers, one above another
Purple	Gold-striped leaved
Blue	Silver-striped leaved
White	<i>Tulip</i> , early dwarf tulip
Musk hyacinth	Tall or most common tulip
White	Early, yellow and red striped
Ash-colored	White and red striped
Blue feathered hyacinth	White and purple striped
Purple	White and rose striped
Musky, or sweet-scented, with full purple flowers	Tall, or late flowering, with white bottoms, striped white brown
The same, with large purple and yellow flowers	White bottom, striped with violet or black brown
Great African Muscaria, with sulphur-colored flower	White bottoms, striped with red or vermilion
<i>Fritillaria</i> , chequered tulip	Yellow bottoms, striped
Early purple, variegated, or chequered with white	

- with different colors, called Bizarres
- Double Tulip*, yellow and red
White and red
- Gladiolus*, corn flag, or sword lily, common, with sword shaped leaves, and a reddish purple flower ranged on one side of the stalk
- The same, with white flowers
- Italian, with reddish flowers ranged on both sides of the stalk
- The same, with white flowers
- Great red of Byzantium
Narrow grassy-leaved, and a flesh-colored flower, with channelled, long, narrow, four-angled leaves, and two bell-shaped flowers on the stalk
- Great Indian
- Anemone*, wood anemone, with blue flowers
White flowers
Red flowers
Double white
- Garden Double Anemone*, with crimson flowers
Purple
Red
Blue
White
Red and white striped
Red, white, and purple
Rose and white
Blue, striped and white,
- Ranunculus*, Turkey, with a single stalk, and large double blood-red flower
Yellow-flowered
- Persian, with branching stalks and large double flowers of innumerable varieties, of which there are.—
Very double flowers
Semi, or half double
(The double are most beautiful, propagated by off-sets.)
- Pancratium*, sea daffodil
Common white sea Narcissus, with many flowers in a sheath, and tongue-shaped leaves
Sclavonian, with taller stems and many white flowers, and sword-shaped leaves
Broad-leaved American, with large white flowers, eight or ten in a sheath
Mexican, with two flowers
Ceylon, with one flower
- Moly* (*Allium*.) species of garlic, producing flowers
Broad-leaved yellow
Great broad-leaved, with lily flowers
Broad leaved, with white flowers in large round umbels
Smaller white umbellated
Purple
Rose colored
- Fumaria bulbosa*, or bulbous-rooted fumitory
Greater purple
Hollow-rooted
American, with a forked flower
- Narcissus*, or daffodil, common double yellow daffodil
Single yellow, with the

- middle cup as long as the petals
- White, with yellow cups
- Double, with several cups, one within another
- Common white narcissus, with single flowers
- Double white narcissus
- Incomparable, or great nonsuch, with double flowers
- With single flowers
- Hoop petticoat narcissus, or rush-leaved daffodil, with the middle cup larger than the petals, and very broad at the brim
- Daffodil, with white reflexed petals, and golden cups
- White daffodil, with purple cups
- Polyanthus Narcissus*, having many small flowers on a stalk, from the same sheath. Of this are the following varieties:—
- White, with white cups
- Yellow, with yellow cups
- White, with yellow cups
- White, with orange cups
- White, with sulphur-colored cups
- Yellow, with orange cups
- Yellow, with sulphur-colored cups
- With several intermediate varieties
- Autumnal narcissus
- Jonquil*, common single
- Large single
- Common double
- Double, with large round roots
- Lilium*, the lily, common white lily
- With spotted or striped flowers
- With double flowers
- With striped leaves
- White lily, with hanging or pendent flowers
- Common orange lily, with large single flowers
- With double flowers
- With striped leaves
- Fiery, bulb-bearing lily, producing bulbs at the joints of the stalks
- Common narrow-leaved
- Great broad-leaved
- Many-flowered
- Hoary
- Martagon lily, sometimes called Turk's-cap, from the reflexed position of their flower-leaves.— There are many varieties, and which differ from the other sorts of lilies in having the petals of their flowers reflexed, or turned backward.— The varieties are,
- Common, red martagon, with very narrow sparsed leaves, or such as grow without order all over the flower stalk
- Double martagon
- White
- Double white
- White spotted
- Scarlet, with broad sparsed leaves
- Bright red, many-flowered, or pompony, with short, grassy, sparsed leaves

- Reddish hairy martagon, with leaves growing in whorls round the stalk
- Great yellow, with pyramidal flowers, spotted
- Purple, with dark spots, and broad leaves in whorls round the stalk, or most common Turk's cap
- White spotted Turk's cap
- Canada martagon, with yellowish large flowers spotted, and leaves in whorls
- Campscatense martagon, with erect bell-shaped flowers
- Philadelphia martagon, with two erect bright purple flowers
- Squills*, sea onion, or lily hyacinth, common lily hyacinth, with a lily root and blue flower
- Peruvian, or broad-leaved hyacinth of Peru, with blue flowers
- With white flowers
- Early white starry hyacinth
- Blue
- Autumnal starry hyacinth
- Larger starry blue hyacinth of Byzantium
- Purple star-flower of Peru
- Italian blue-spiked star-flower
- Asphodel lily*, African blue, with a tuberous root
- Tuberose*, or Indian tuberous hyacinth. It produces a small stem three or four feet high, adorned with many white flowers of great fragrance.
- The varieties are,—
- Fine double tuberose
- Single tuberose
- Small flowered
- Striped leaved
- Iris bubosa*, or bulbous iris, Persian, with three erect blue petals called standards, and three reflexed petals called falls, which are variegated, called Persian bulbous iris, with a variegated flower
- Common narrow-leaved bulbous iris, with a blue flower
- White
- Yellow
- Blue, with white falls
- Blue, with yellow falls
- Greater broad-leaved bulbous iris, with a deep blue flower
- Bright purple
- Deep purple
- Variegated
- Great, with broad and almost plain or flat leaves, with blue flowers
- Purple
- Of the above there are many intermediate varieties
- Hyacinth*, eastern, with large flowers. Of these there are many varieties, and of which there are innumerable intermediate shades or tints of color.
- Of double sorts there are—
- Blues
- Purple blues
- Agatha blues
- Whites

- Whites, with yellow eyes
 Whites, with red eyes
 Whites, with violet or purple eyes
 Whites, with rose-colored eyes
 Whites, with scarlet eyes
 Reds
 Incarnate, flesh or rose-colored
 Of single sorts there are—
 Blues, of various shades, as above
 Whites
 Reds
 Rose-colored
 With many intermediate shades or varieties (*Muscaria*,) or musk hyacinth
 Ash-colored
 White
 Obsolete purple
 Great yellow African
 Grape hyacinth
 Purple
 Blue
 White
 Red
 Monstrous flowering, or blue-feathered hyacinth
 Comosed, or tufted purple hyacinth
 Amethystine blue hyacinth
 Nodding, spiked, red hyacinth
 Non-script, small English hyacinth, or harebells, of the following varieties:
 Common, with blue flowers arranged on one side of the stalk
 White
 Bell-shaped blue hyacinth,
- with flowers on every side of the stalk
 Bell-shaped peach-colored, with flowers on one side of the stalk
 These are very hardy, propagating by offsets
 Hyacinth, with a pale purple flower
Colchicums in variety
Leontice, lion's leaf, largest yellow, with single footstalks to the leaves
 Smaller pale yellow, with branched footstalks to the leaves
Cyclamen, sow-bread, European, or common autumn-flowering, with a purple flower, and angular heart-shaped leaves
 The same, with a black flower
 The same, with white flowers
 Red spring flowering, with heart-shaped leaves, marbled with white
 Entire white, sweet-smelling
 Purple winter-flowering, with plain or circular shining green leaves
 Purple round-leaved autumn-flowering
 Small, or anemone-rooted, with flesh-colored flowers appearing in autumn: these plants have large, round, solid roots; the flowers and leaves rise immediately from the root.

<p><i>Corona Regalis</i>, or royal crown; requires shelter in the winter.</p>	}	<p><i>Aconite</i>, the winter <i>Sisyriuchium</i></p>
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AURICULA, RANUNCULUS, ANEMONE.

These early and beautiful flowers deserve peculiar notice, for no garden looks well without them, and their bright tints delight the eye and mind. The commonest kinds are handsome and useful in small clumps, and a little care and trouble will raise superb varieties.

The Auricula loves a soil composed of kitchen-garden mould, sand, and cow-dung, well mixed together; they also like a cool situation. The seed should be sown in September, and when sown give it a gentle watering. By sowing the seed in pots or boxes, you can remove them from heavy rains, &c., without trouble, and shelter them in the out-houses or tool-house. The seed seldom appears under six months, and it has been sometimes a twelvemonth producing itself, therefore be not in despair, but remain patient: these freaks of Nature cannot be accounted for. When they flower, you must single out the plants which bear the finest and most choice blooms, and transplant them into pots filled with the compost above described. The common sorts may be planted in the borders, to remain out and shift for themselves. By keeping the fine auriculas in pots, you preserve them through the winter easily, for heavy rains and cutting winds do them harm. You can sink them in their pots during summer in the flower-beds, but let them be sheltered during the winter, if you wish to preserve the blooms uninjured.

Auriculas multiply also by suckers, which grow

on their roots. 'Take off these in February, and plunge them into pots of the mould they like best, to root freely. They will do so in two months. Auriculas should not be too much watered, as it makes them look sickly, and the leaves become yellow. When you pot the auriculas, sink them up to their leaves in the soil, but do not press the mould round the plant, as the flowers bloom finest when the roots touch the sides of the flower pot.

The auricula is esteemed fine that has a low stem, a stalk proportioned to the flower, the eye well opened and always dry. The glossy, the velvet, and the streaked auriculas are the most admired. The stalk should be decked with many flower-bells, to be handsome and healthy.

'Take care to pull off all dead leaves round the plant at all times, that it may appear neat and clean. Neatness is favorable to its perfect growth, as well as decorating it to the eye.

The Ranunculus does not like being mixed up with other flowers, and from this "aristocratic principle," it is always planted in separate knots.

This flower loves sun and warmth. The root must be planted in September, to bloom early in the summer, and it delights in a rich moist soil, well dug, and raked soft and fine. When you plant them in beds or pots, they must be sunk two inches deep, and dibble the hole with a round, not pointed, dibble. Place the roots four or five inches apart, in the warmest situation in your garden. By planting ranunculuses in pots, you can more easily place them in warm situations, and withdraw them from heavy rains. The more room you give these roots the finer they will grow and blow. If your plots will allow of so doing, let the roots be planted six

or seven inches apart. The flowers will repay your care. When ranunculuses in pots have flowered, remove them from the August rains, or take up the roots, to replant in September.

The *Ranunculus* with the double white flower must not be taken up until September, when it should be taken up quickly, its roots parted, and replanted immediately.

The yellow *Ranunculus* with the rue leaf, prefers being potted to being planted in beds.

The *Ranunculus* propagates by seed as well as offsets. Sow the seed as you do that of the auricula.

The most admired ranunculuses are the white, the golden yellow, the pale yellow, the citron-colored, and the brown red. The red is the least esteemed. The yellow ranunculus speckled with red, is handsome,—also the rose-color with white inside.

Great varieties are obtained by seed.

The *Anemones* love a light soil, composed of kitchen-garden mould, and sand, and leaf mould, well mixed, and sifted fine. It should, if possible, be composed a year before it is used; the lighter it is the better for anemones.

The seed should be sown in September. The single flowers alone bear seed, which is fit to gather when it appears ready to fly away with the first gust of wind. As soon as the seed is lodged, and raked smoothly into its fine, light bed, strew the bed over with straw or matting, and give it a good watering. In three weeks the seed will begin to rise, when the straw may be removed. The young plants will flower in the following April.

When the roots are to be planted in September,

sink them about three inches deep, and six inches apart, that they may come up strong and flower well. Make a hole in the ground for them with your finger, and set them upon the broadest side, with the slit downwards.

Those anemones planted in September will flower in March and April, and the roots planted in May, flower in autumn, but the flowers are never so fine.

When anemones have done flowering, it requires some care in taking up the roots, in order to part and put them by till the time for replanting arrives. The roots or flaps are so small and difficult to distinguish, that the earth should be taken up and laid upon a sieve to be sifted, when the flaps will alone remain behind, or the earth may be deposited upon an open newspaper or cloth, and well rubbed with the hand to feel for the minute, dark-colored flaps, which may easily escape observation.

The beauty of this flower consists in its thickness and roundness, especially when the great leaves are a little above the thickness of the tuft.

Choose your seed from the finest single anemone, with a broad, round leaf.

The remaining tuberous-rooted flowers are very hardy.

Biennials.

Biennial flowers, as the name implies, are plants that exist only two years. They are propagated by seed, rising the first year, and flowering the second. If they continue another year, they are sickly and languid. The double biennials may be continued by cuttings and slips of the tops, as well as by layers and pipings, though the parent flower dies,—but

they are not so fine. A lady should have a space of ground allotted to biennial seedlings, so that a fresh succession of plants may be ready to supply the place of those which die away. The seeds should be sown every spring in light, well-dug earth; the young plants should be kept very clean, and some inches apart from each other; and they must be finally transplanted in autumn into the beds where they are intended to remain.

But there is a great uncertainty as to raising the double flowers; therefore it is better to make sure of those you approve by perpetuating them as long as you can, by any root offsets they may throw off; by pipings, cuttings, or by layers, as before noticed. I subjoin a list of the principal and useful biennials.

LIST OF HARDY BIENNIALS.

<i>Canterbury Bells</i>	<i>Poppy, Yellow-horned</i> (<i>Che-</i>
Blue-flowered	<i>ludonium glaucum</i>)
White	<i>Rocket, Dame's violet</i>
Purple	Single white
Pyramidal	Double white
<i>Carnation.</i> All the varieties,	Double purple
somewhat biennial pe-	Single purple
rennial.	<i>Rose Campion</i>
<i>Clary.</i> Purple-topped	Red
Red-topped	White
<i>Colutea, Æthiopian</i>	<i>Scabias, double</i>
<i>French Honeysuckle</i>	Dark purple-flowered
Red	Dark-red
White	White
<i>Globe thistle</i>	Starry purple-flowered
<i>Hollyhocks.</i> Somewhat bien-	Starry white
ennial-perennial; all the	Jagged leaved starry
varieties; always by	<i>Stock Gullflower</i>
seed.	Brompton
<i>Lunaria, Moonwort or Hon-</i>	Queen
esty	Twickenham
<i>Mallow</i> (Tree)	<i>Sweet-william</i>

Red	Common upright tall yellow
Scarlet	low
Purple	Small-flowered
Red, white-bordered	<i>Wall-flower</i>
Party-colored	Yellow-flowered
Variegated	Bloody
Painted Lady	White
Double of each	Double of each
Mule, or Mongrel Sweet-	<i>Night Stock</i>
william, or Mule Pink	<i>Petunia</i>
<i>Tree mallow (Lavatera ar-</i>	White
<i>borea)</i>	Lilac
<i>Tree Primrose</i>	

When you make your seedling-bed or nursery, cover it over with straw, or fern, or matting, during frost; and to prevent the birds pecking up the seeds, it is requisite to protect the bed by strewing light boughs of thorn bushes over it, or fixing a net upon sticks as a covering, till the plants appear. If cats, dogs, or poultry intrude into the flower-garden, it is in vain to hope for enjoyment.

Sow your biennial seeds in March, April, or May. I recommend May, because the young plants in that month germ and vegetate quickly, surely, and without requiring defences from the frost. Plant them out in October, with a ball of earth to each root, where they are to remain.

The Stock Gilliflowers in particular, having long, naked roots, must be planted out very young, otherwise they do not succeed well.

Honesty is a very early, rich-flowering biennial, which requires no care; they shed their seed, rise, and flower, without any assistance, in profusion. The only trouble is to weed it out of the beds, that they may not stand in the way of other flowers.

Canterbury Bells are handsome flowers, and will bloom a long time if you cut off the bells as they decay.

The deep crimson Sweet-williams are most esteemed, though every variety looks well.

Sweet-williams may be increased by layers and cuttings, which is the only sure way of securing the sorts you like; for you may sow seed every year, and not one in a thousand will reward you by coming up double.

Carnations are the pride of a garden, and deserve great care and attention. The common sorts, which are planted in borders, should have a good rich earth about them, and be treated like the pink; but the finer sorts should always be potted, to protect and shelter the plant from hares, rabbits, heavy rains, and severe frost in the winter. Refresh the top of the pots with new soil in June, and keep the plants free from decayed leaves. Gently stir the earth round each plant occasionally; and as plants in pots require more water than if placed in the ground, let the carnations be gently moistened about every other day during dry weather. Let the watering take place in the *evening*; no flower will endure being watered during the heat of a summer's day. Carnations love sand and salt in proper proportions. The brine which is deposited upon the compost heap, will answer every purpose of salts, (if it be regularly carried out,) without adding common salt: but let this be particularly attended to. The cook should deposit her pickle and brine to good purpose upon the compost heap, instead of splashing it down in front of her kitchen door.

Let each plant be well staked, and neatly tied to its supporter; and do not allow two buds to grow side by side upon the same stem, for one will weaken the other. Pinch off the smaller bud.

Carnations love warmth; therefore give them a sunny aspect to blow in. The seedling plants may be treated like young pinks, but this difference must be observed;—pinks love shade, and carnations love warmth. A bed of carnations is a beautiful object. The pots can always be sunk in a border or bed in fine weather. Carnations may be layered, or piped, or slipped for propagation.

Water your carnations in pots once a week with lime water, if they appear drooping, for this proceeds from a worm at the root; but the brine will destroy all insects quickly, when poured upon the compost heap.

In propagating double Wall-flowers, take slips of the young shoots of the head: this will perpetuate the double property and color of the flower, from which they were slipped. In saving seed for wall-flowers, choose the single flowers, which have five petals or flower leaves. Double flowers have no seed.

Water the slips, and keep them shady and moist: they will root by September.

Plant your Hollyhocks in September or October, where they are to remain. Hollyhocks are a noble flower, and they love a strong soil. Let a succession of these flower plants be attended to in the biennial seed-bed. Keep them some inches apart from each other in the seedling-bed, for they form large straggling roots. The hollyhock looks well in clumps of three, at a good distance apart, in large gardens or shrubberies, but they are somewhat too overgrown for smaller parterres.

Be particular in gathering your seeds on a fine, dry day, and put each sort in a separate brown paper bag till you require them. The very finest

seedlings are, after all, those which spring near the mother plant from self-sown seed, therefore, when you weed or dig your flower borders, be careful not to disturb any seedlings which may have sprung up. They always make strong, fine blooming plants.

Take care of your double-flowering plants in winter. The double wall-flower is hardy enough to exist in the borders, but the other double biennials deserve to be sheltered, for double flowers are very handsome, and heavy rains, snow, or severe frost, injure them. Take cuttings every year from them.

The Night Stock is tolerable hardy if sheltered during the frost by ashes or litter. The sweetness after night-fall must recommend it to all lovers of fragrant flowers.

PROPAGATING BIENNIALS.

Every young lady must become acquainted with the manner of operating upon plants, to preserve the finer sorts, which they may wish to perpetuate. Raising from seed is slow, but it produces infinite variety. You, however, rarely see the same flower produced twice from seed; therefore you must propagate the biennial and perennial flowers by layers, slips, pipings, and cuttings, if you wish to preserve any particular sorts.

To effect layers, prepare some rich, light earth, a parcel of small hooked sticks, or little pegs, and a sharp penknife.

Now clear the ground about the plant you are going to layer; stir the surface well with your trowel, and put a sufficient quantity of the pre-

pared mould round the plant as will raise the surface to a convenient height for receiving the layer.

Cut off the top of each shoot with your knife, about two inches, and pull off the lower leaves; then fix upon a joint about the middle of the shoot, and, placing your knife under it, *slit* the shoot from that joint, rather more than half way up, towards the joint above it.

Now make an opening in the earth, and lay the stem, and slit or gashed shoot, into it, and peg it down; taking care to raise the head of the shoot as upright as you can, that it may grow shapely; then cover it with the new mould, and press the mould gently round it. Do this by each shoot till the plant is layered—that is, till every shoot is laid down. They must be watered often in dry weather, but moderately, not to disturb or wash away the soil round the layers. In six weeks' time, each gashed or slit shoot will have rooted and become a distinct plant. They may be taken away from the old parent stem in September, and dug up with a ball of earth round each root, to be transplanted into the plots or borders where they are to remain.

Carnations, pinks, sweet-williams, double wall-flowers, &c., are the flowers most deserving of layers.

Piping, which belongs almost exclusively to carnations and pinks, is a most expeditious mode of raising young plants.

Take off the upper and young part of each shoot, close below a joint, with a sharp knife, and cut each off at the third joint, or little knob; then cut the top leaves down pretty short, and take off the lower and discolored ones. When you have piped in this way as many as you require, let them stand

a week in a tumbler of water, which greatly facilitates their doing well. Indeed, I never failed in any pipings, slips, or cuttings, which I allowed to soak and swell in water previous to planting. When you plant the pipings, let the ground be nicely dug, and raked very fine; dibble no hole, but gently thrust each piping half way down into the soft earth, slightly pressing the earth round each, to fix it in the bed. Water them often if the weather is dry, but moderately, just to keep them moist; and shade them from the hot sun in the day. If pipings are covered with a hand-glass, they root earlier, by three weeks, than those which are exposed.

Laying, piping, and slipping, are done in June and July. The plants will be well rooted, and fit to plant out in October.

The operation of slipping is easy. Tear the top shoots of the plant to be so propagated, gently from their sockets; hold the shoot between your finger and thumb, as near the socket as you can, and it will tear as easily and neatly as you carve the wing of poultry or game. Place the slips in water for a few days previous to planting them, like pipings. They will root in six weeks or two months, if kept shady and moist.

Cuttings must be made of shoots of the last year's growth of roses, honeysuckles, &c., and planted in February. Choose the strong shoots, and do not cut them less than six inches long. Cut them with your knife in a slanting direction. Plant them in a shady place, each cutting half way in the ground, which should be cleaned, and well dug and raked, to receive them. Cuttings made in February, will root well by October.

Cuttings of flower stalks, such as scarlet lychnis, should be done in May, June, and July. Take cuttings from the youngest flower stems, and plant them carefully in nice mould, like pipings. These flower cuttings should be in lengths of four joints each. Covering them with a hand-glass raises them very quickly. They root in two months.

When hand-glasses are not to form any part of a lady's arrangements, oil-papered frames are equally useful. I have seen very economical and useful frames made of bamboo, in the *form* of hand-glasses, covered neatly with glazed white cotton or linen, or horn paper, made by a lady with great celerity and ingenuity; and her cuttings and pipings succeeded under them admirably. Whatever shelters cuttings and pipings from the rays of the sun, effects a material purpose. Linen is the best shelter in the world from heat, but oiled or horn paper resists rain better.

Dr. Priestly is of opinion that salt water is very efficacious for cuttings, if they are placed in it for a few days previous to planting. He remarks that it is a custom with the importers of exotic plants, to dip cuttings in salt and water, otherwise they would perish on the passage.

CHAPTER IV.

ANNUALS.

ANNUALS, as I have observed before, are flowers that rise, bloom, and die in the same year; and must therefore be raised from seed every spring.

The first class of annuals, being very delicate, and requiring great care, with the constant assistance of glass frames, I shall not even name, since they do not enter into the nature of my work.

I proceed to the second class, which are hardier than the above, though they should be raised in a warm border, and be covered with a hand-glass, if you wish them to flower in good time.

The ten weeks' Stocks will grow, if sown in a warm border, towards the end of March, and should be afterwards transplanted; but if brought up in a hot-bed, they will flower a month or six weeks earlier.

The China-aster, Chrysanthemum, white and purple Sultan, African and French Marigolds, Periscarias, &c., will grow well in a warm border of natural earth, if sown in April; but they also flower a month earlier if they are assisted by a hot-bed or glass. These annuals must be all planted out when tolerably strong, into the spots where they are destined to remain in the borders, taking care to allow each plant plenty of space, that they may not crowd each other. The China-aster branches

into many stems and flowers, therefore they may be planted singly, or not less than six inches apart. The July flowers, or more commonly called gilliflowers, become expansive as they increase. They should not be crowded together; three in a group are quite sufficient, and they should be six inches apart. The same may be said of the stock varieties.

I have ever found the hardy annuals grow finest by allowing them to become self-sown. They flower some weeks earlier, and invariably produce larger and brighter flowers.

When gathering my flower seeds in August and September, I allow one half to remain sprinkled over the borders; and the young plants never fail appearing healthy and strong above ground in March and April, the months appropriated to sowing the seed. Thus, my Lavateras, Larkspurs, &c., are in beautiful blow, while the second crop, or seed sown in the spring, are but showing their green heads above the surface. I weed away the superfluous self-sown plants to my taste; but the birds take care that no one shall be encumbered with superfluity. I have by this means a first and second crop of the same annuals, but the crop of self-sown are far superior. They are up before the heats come on to dry the earth, and dwindle the flower.

Dig the ground well with your trowel, and rake it very fine, before you put in the seeds in spring. Annuals love a light, friable soil. All the hardy kinds may be sown in March, each sort in little separate patches, as follows:—

Draw a little earth off the top to one side, then sprinkle in the seed, not too plentifully, and cover

it again with the drawn-off earth. Half an inch is sufficient depth for small seed. The larger kind, such as sweet-peas, lupins, &c., must be sown an inch in depth. When the plants have been up some time, thin them well. The more space you have, the finer the plants will rise.

The hardy annuals will not bear transplanting : they must be left to flourish where they are sown. The large kinds, such as the lavatera or mallow, should only be sown in groups of three plants together. The lupin tribe should not exceed five plants in a group. The *Convolvulus*, also, requires four or five plants only in a group. Water the patches in dry weather moderately, and be careful never to use pump water. If you have no soft water, a tub should be placed in the garden to receive rain water; and if, as in towns, pump water must be chiefly used, let it remain a day or two in the tub, to soften in the air and sunshine.

The first week in April is the safest period for sowing annuals, as the cutting winds have ceased by that time, and frost is not so much to be apprehended. The soft rains, also, fall in warm showers, to give life and germ to seeds and plants, and they appear in a shorter space of time.

Those ladies who live in the vicinity of nursery gardens, have a great advantage over the more remote flower-fanciers. They can be supplied, at a trifling expense, with all the tender annuals from hot-beds, either in pots, or drawn ready for immediate transplanting.

If you do not raise your own seed, be careful how you purchase your stock, and of whom you receive it. Many seedsmen sell the refuse of many years' stock to their youthful customers, and

produce great disappointment. There is one way of ascertaining the goodness of the seed, which will not deceive. Previous to sowing, plunge your lupin, sunflower, &c., seeds into a tumbler of water: the good seed will sink, while the light and useless part remains floating on the surface.

If you grow your own seed, exchange it every two years with your neighbors. Seeds love change of soil: they degenerate, if repeatedly grown and sown upon the same spot, particularly sweet-peas.

Sweet-peas should be put into the ground early in March, for they will bear the wind and weather. Make a circle round a pole, or some object to which they may cling as they rise; and put the peas an inch deep, having soaked them previously in water well saturated with arsenic, to guard them from the depredations of birds and mice. Add an outer circle of peas every month, so that a continual bloom may appear. The circle first sown will ripen and pod for seed in the centre, while the outer vines will continue flowering till late in the autumn. When you have gathered a sufficient number of ripe pods, cut away all the pods which may afterwards form, with your knife. This strengthens the vines, and throws all their vigor into repeated blooms.

Be very careful to throw away the arsenic water upon your heap of compost, and do not put that powerful poison into any thing which may be used afterwards in the house. Soak the peas in a flower-pot saucer, which is never required for any other purpose, and keep it on a shelf in the tool-house, covered up. Three or four hours' soaking will be sufficient. If the wind and frosts be powerful and continued, shelter the peas through March, by covering them with straw or matting every evening.

I have got sweet-peas into very early blow by bringing them up in pots in-doors, and transplanting them carefully in April, without disturbing the roots. In doing this, push your finger gently through the orifice at the bottom of the flower-pot, and raise its contents "bodily." Then place the ball of earth and plants into a hole trowelled out to receive it; cover it round gently, and, if the weather is dry, water it moderately.

Ten-weeks' stock is a very pretty annual, and continues a long time in bloom. Mignonette is the very sweetest of all perfumes, and should be sown in September for early blowing, and again in March for a later crop. It is always more perfumy and healthy, if dug into the ground in autumn to sow itself. Venus' Looking-glass is a very pretty, delicate flower. Indeed, every annual is lovely; and the different varieties give a gay and rich appearance to the flower-garden during the three summer months.

The Clarkias are very pretty annuals, with a hundred other varieties lately introduced, and which are all specified in Mrs. Loudon's new work upon annuals. My plan is, to give a general idea of their treatment only, under the classification of hardy annuals, or those annuals which may be nurtured without a hot-bed.

Keep your annuals from looking wild and disorderly in a garden, by allotting the smaller kinds their separate patches of ground; and trim the larger annuals from branching among other flowers. For instance, cut away the lowest branches of the China-aster, the African marigold, &c., and train the plant erect and neatly to a slight rod or stick; cut away the flowers as they droop, reserving one

or two of the finest blooms only for seed; and let each plant look clean and neat in its own order. By cutting away flowers as they droop, the plant retains vigor enough to continue throwing out fresh flowers for a long period.

SECOND, OR LESS TENDER CLASS OF ANNUALS.

- | | |
|---|---|
| <i>African marigold</i> , the orange | <i>Gourds</i> , the round, smooth |
| Yellow | orange |
| Straw colored | Rock, or warted |
| Double of each | Pear-shaped yellow |
| Double-quilled | Pear-shaped striped |
| <i>French marigold</i> , the striped | Stone-colored |
| The yellow | <i>Bottle Gourd</i> , some very |
| Sweet-scented | large, from two or three |
| <i>China-aster</i> , the double | to five or six feet long, |
| Double purple | and of various shapes |
| Double white | <i>Momordica Balsamina</i> |
| Double striped | <i>Persicaria</i> |
| <i>Marvel of Peru</i> , the red striped | <i>Indian Corn</i> , the tall |
| Yellow-striped | Dwarf |
| Long-tubed | <i>Nolana Prostrata</i> , blue |
| <i>Chrysanthemum</i> , the double | <i>Convolvulus</i> , scarlet-flowered |
| white | <i>Yellow Balsam</i> , or <i>Touch-me-not</i> |
| Double yellow | <i>Capsicum</i> , long red-podded |
| Double-quilled | Long yellow podded |
| <i>Sweet Sultan</i> , the yellow | Red, short, thick, roundish |
| White | podded |
| Red | With heart-shaped pods |
| <i>Indian Pink</i> , double | With cherry-shaped fruit, |
| Single | red |
| Large imperial | Cherry-shaped fruit, yellow |
| <i>Alkekengi</i> | <i>Basil</i> , the common, or sweet- |
| <i>Palma Christi</i> , the common | scented |
| Tall red-stalked | Bush basil |
| Smaller green-leaved | <i>Zinnia</i> , red |
| Smallest | Yellow |
| <i>Tobacco</i> , long-leaved Virginia | <i>Amaranthus</i> |
| Broad-leaved | <i>Tree Amaranthus</i> |
| Branching perennial | Prince's feather amaran- |
| <i>Lore Apple</i> , with red fruit | thus |
| With yellow fruit | |

Love-lies-bleeding amarantus	Double purple
<i>Cannacorus</i> , yellow	White <i>Ten-week Stock</i> , with a wallflower leaf
Red	With double and single flowers
Chinese hollyhock, the variegated	The double of this sort makes a pretty appearance
<i>Ten-week Stock Gilliflower</i>	
The double red	
Double white	

The following are hardy annuals, requiring no assistance of artificial heat, but should all be sown in the places where it is designed they shall flower :

<i>Adonis Flower</i> , or Flos Adonis, the red-flowering	White
The yellow	Scarlet
<i>Candytuft</i> , the large	<i>Ketmia</i> , bladder
Purple	<i>Starry Scabious</i>
White	<i>Hawkweed</i> , the yellow
<i>Larkspur</i> , the double rose	Purple, or red
Double-branched	Spanish
Large blue double	<i>Carthamus tinctorius</i> , or saffron-flower
Double white	<i>Nasturtium</i> , the large
<i>Lupins</i> , the rose	Small
Large blue	<i>Cerithe major</i> , or great Honey-wort
Small blue	<i>Tangier Pea</i>
Yellow	<i>Sweet Pea</i> , the painted lady
White	The purple
Scarlet	White
Marbled	Scarlet
<i>Sunflower</i> , the tall double	<i>Winged Pea</i>
Double dwarf	<i>Crown Pea</i>
<i>Lavatera</i> , red	<i>Nigella</i> , or devil in a bush, the long blue or Spanish
White	The white
<i>Poppy</i> , the double tall striped carnation	Oriental mallow, curled
Dwarf-striped	Venitian mallow
Double corn poppy	<i>Lobel's Catchfly</i> , white and red
Horned poppy	<i>Arbiscus</i>
<i>Convolvulus</i> , major	<i>Pimpernel</i>
Minor	
Striped	

- Dwarf Lychnis*
Venus' Navel wort
Venus' Looking glass
Virginian Stock
Strawberry Spinach
Noli me tangere, or touch me-not
Heart's Ease
Snail Plant
 Large ditto
Caterpillar Plant
Hedgehog Plant
Antirrhinum. snap-dragon, the annual
Nolan, b ne
Cyanus, or corn-bottle, the red
 White
 Blue
Roman Nettle
Belvidere, or summer cypress
Garden, or common *Marigold*, the common single
 Double orange
 Double lemon-colored
 Double lemon-colored ranunculus marigold
Annual Cape Marigold, with a violet and white flower
Mignonette, or reseda, the sweet-scented
 The upright
Xeranthemum, or eternal flower, red and white
Purple Clary
Purple Jacobæa
Dracöcephalum, the purple
 Blue
Capnoides, or bastard fumitory
Ten-week Stock Gilliflowers, in variety
Persicaria
Tobacco Plant
 Long-leaved
 Round-leaved
Indian Corn
Amethystea
Globe Thistle
Clarkias

CHAPTER V.

ROSES AND JASMINES.

THESE most delicious, most elegant flowers—in themselves a garden—are worthy of a chapter devoted exclusively to their culture. What cottage exists without its roses twined around the doorway, or blooming up its pathway? What is sentiment without its roses? What other flower illustrates the beauty and excellence of a loved one?—

“ Oh! my love is like the red, red rose,
That sweetly blows in June.”

Every gentle feeling, every exquisite thought, every delicate allusion, is embodied in the rose. It is absurd to say the rose by another name “ would smell as sweet.” It is not so. Poetry, painting, and music, have deified the rose. Call it “ nettle,” and we should cast it from our hands in disgust.

There are innumerable varieties of roses, from the cottage rose to the fairy rose, whose buds are scarcely so large as the bells of the lily of the valley. Mrs. Gore mentions some hundreds of sorts, but such a catalogue is too mighty to insert in my little work. I will name only the well-known hardy kinds, and refer my reader to Mrs. Gore herself for the complete collection. Seed yields such inexhaustable varieties, that a new list will be required every ten years.

The *Damask rose* is very useful from its properties, as well as its beauty and hardihood. Rose-

water is distilled from this bright, thickly-blowing flower.

The *Cabbage rose* is the most beautiful, as well as the most fragrant of roses. All others are varieties of roses, but this grand flower is the "rose itself."

It throws out suckers plentifully for propagating its kind; and every two or three years, the root of each bush will part into separate plants. Cut the roots slanting with a sharp knife as you divide them. A very small bit of root is sufficient for a rose-bush, as they are hardy in their nature. Do not move roses oftener than you can help: they delight in being stationary for years.

In pruning roses of every description, which should be effected in January, shorten all the shoots to nine inches only, and cut away all the old wood, which becomes useless after two or three years' growth. This treatment ensures fine flowers.

Roses love a good soil, as, indeed, what flower does not? Fresh mould applied to them every two or three years, or manure dug round them annually, preserves them in constant vigor and beauty.

Shoots of rose-bushes laid down and pegged like layers, only without gashing, when the flowers are in bloom, will root and become plants in the autumn. Pinch off the buds, that they may throw their strength into their roots.

Roses are often observed to change their color, which effect proceeds chiefly from bad soil. When this occurs, manure the root of the bush or plant. A clay soil, well dressed with ashes, is the best of all soils for the hardy roses.

Moss roses love a cool soil and a cool aspect. They soon fade in a hot sun.

The origin of this exquisitely beautiful variety, the Moss Rose, is thus fancifully accounted for :

The Angel of the flowers, one day,
 Beneath a Rose Tree sleeping lay,
 That Spirit to whose charge is given
 To bathe young buds in dews from heaven.
 Awaking from his high repose,
 The Angel whispered to the Rose:
 " O fondest object of my care,
 Still fairest found where all are fair,
 For the sweet shade thou'st given to me,
 Ask what thou wilt, 'tis granted thee."

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

A pyramid of climbing roses is a beautiful object in a garden, Iron or wooden stakes, twelve feet in height, gradually approaching each other, till they meet at the top, with climbing roses trained up their sides, is a pleasing and easily constructed ornament. Fancy and taste may range at will in inventing forms to ornament the parterre with roses. Beds of roses, raised pyramidally, have a splendid effect. When the flowers die away in the autumn, the mass may be clipped again into form, with the garden shears, as you would clip a laurel hedge.

Standard roses, which are so much in fashion at this time, and which always remind one of a housemaid's long broom for sweeping cobwebs, are beyond a lady's own management, as budding is a troublesome business, and very frequently fails. I will not, therefore, touch upon this subject.

The *double yellow rose* is very elegant. It requires a western aspect, and even prefers north and east, but a warm aspect injures its beauty. It loves a good substantial soil, and will not bear much cutting or removing. Let it alone in its glory, only pruning away the old scraggy wood occasionally, to strengthen the plant.

The *monthly rose* is also a lover of the north and east. It blooms through the autumn and winter, has an evergreen leaf, and loves a strong soil. It must be propagated by cuttings, and parting the roots, as it never throws up suckers. Prune away the old wood, and make cuttings in June, July, and August, of the branches you clear away. Plant the cuttings in loose, moist earth, and do not let them bud till the following year. Let the cuttings be sunk two joints in the earth, leaving one only exposed. The monthly rose climbs, or creeps.

The *Austrian briar, or rose*, will not flower if exposed to the south. It bears a rich mass of flowers, yellow outside, and deep red within. Give it an eastern or western aspect.

The *perpetual*, or "four-season" rose, requires a rich soil. The flower buds appearing in June and July should be pinched off, and in winter the plant may be pruned as closely as its hardier companions. Place the four-season rose in a sheltered situation from winds.

Among the hardy climbing roses, the *Ayrshire rose* is the most useful. Its foliage is rich, and it covers fences, walls, &c., with astonishing rapidity. It flowers in July. Place it in a warm situation, and it will extend thirty feet in one season.

Lady Banks' yellow rose is a pretty climber, and flowers early in all situations. So does the *Rosa sempervirens*.

Climbing roses will grow luxuriantly under the shade of trees, and form a mass of fragrant under-wood in shrubberies. They grow with surprising vigor, if allowed to remain prostrate. Plant these thinly, and lay in the most vigorous shoots, by pegging them down into the ground. This process increases the plants rapidly, and gives the gayest possible effect.

The *Rosa hybrida multiflora* is a hardy and rapidly growing rose. It flowers also from June to September. So does the red and crimson Bour-sault, and the *Rosa Russiana*.

Roses are subject to the green fly, which disfigures their beauty, particularly the white roses. An excellent remedy for this annoyance is effected by moistening the plant, and then dusting it over with equal portions of sulphur and tobacco dust.

Once, on a solemn festal day,
 Held by the immortals in the skies,
 Flora had summon'd all the deities,
 That rule o'er gardens, or survey
 The birth of greens or springing flowers,
 And thus address'd the genial powers.

“Ye shining graces of my courtly train,
 The cause of this assembly know:
 In sovereign majesty I reign
 O'er the gay flowery universe below;
 Yet, my increasing glory to maintain,
 A queen I'll choose with spotless honor fair,
 The delegated crown to wear.
 Let me your counsel and assistance ask,
 T' accomplish this momentous task.”

The deities, that stood around,
 At first return'd a murmur'ing sound;
 Then said, “Fair goddess, do you know
 The factious feuds this must create!
 What jealous rage, and mutual hate,

Among the rival flowers will grow ?
 The vilest thistle that infests the plain,
 Will think his tawdry painted pride
 Deserves the crown, and, if denied,
 Perhaps with traitor plots molest your reign."
 "Vain are your fears," Flora replied;
 "'Tis fix'd, and hear how I'll the cause decide.

"Deep in a venerable wood,
 Where oaks, with vocal skill indued,
 Did wond'rous oracles of old impart,
 Beneath a little hill's inclining side,
 A grotto 's seen, where Nature's art
 Is exercised in all her smiling pride.

"Retired in this sweet grassy cell,
 A lovely wood-nymph once did dwell:
 She always pleased; for more than mortal fire
 Shone in her eyes, and did her charms inspire,
 A dryad bore the illustrious nymph, a sylvan was her sire.

"Chaste, wise, devout, she still obey'd,
 With humble zeal, Heaven's dread commands,
 To ev'ry action ask'd our aid,
 And oft before our altars pray'd.
 Pure was her heart, and undefiled her hands.

"She 's dead, and from her sweet remains
 The wond'rous mixture I would take,
 This much desired, this perfect flower to make;
 Assist, and thus, with our transforming pains,
 We'll dignify the garden beds, and grace our fav'rite plains."

Th' applauding deities with pleasure heard,
 And for the grateful work prepared.
 A busy face Priapus wore;
 Vertumnus of the party too,
 From various sweets th' exhaling spirits drew;
 While in full canisters Pomona bore
 Of richest fruit a plenteous store;
 And Vesta promised wond'rous things to do.
 Gay Venus led a lively train
 Of Smiles and Graces; the plump god of wine
 From clusters did the flowing nectar strain,
 And fill'd large goblets with his juice divine.

Thus charged, they seek the honor'd shade,
 Where lived and died the spotless maid,
 On a soft couch of turf the body lay:
 Th' approaching deities passed all around,
 Prepared the sacred rites to pay
 In silence, and with awe profound.
 Flora thrice bow'd, and thus was heard to pray:—

“Jove, mighty Jove, whom all adore,
 Exert thy great creating power!
 Let this fair corpse be mortal clay no more:
 Transform it to a tree, to bear a beautiful flower.”
 Scarce had the goddess spoke, when, see,
 The nymph's extended limbs the form of branches wear,
 Behold the wondrous change, the fragrant tree!
 To leaves was turn'd her flowing hair,
 And rich diffus'd perfumes regaled the wanton air.

Heaven! what new charm, what sudden light,
 Improves the grot, and entertains the sight!
 A sprouting bud begins the tree to adorn—
 The large, the sweet vermilion flower is born!
 The goddess thrice on the fair infant breathed,
 To spread it into life, and to convey
 The fragrant soul, and every grace bequeathed,
 To make the vegetable princess gay.
 Then kiss'd it thrice; the general silence broke,
 And thus in loud rejoicing accents spoke:—

“Ye Flowers, at my command, attendant here
 Pay homage, and your sovereign Rose revere!
 No sorrow on your drooping leaves be seen,
 Let all be proud of such a queen,
 So fit the floral crown to wear,
 To glorify the day, and grace the youthful year!”

Thus speaking, she the new-born fav'rite crowned;
 The transformation was complete:
 The deities with songs the queen of flowers did greet.
 Soft flutes and tuneful harps were heard to sound,
 While now to heaven, well pleased, the goddess flies
 With her bright train, and reascends the skies.

The following list of roses will not prove beyond a lady's management, being hardy, and requiring only pruning every January, and giving them a good soil. Prune the white rose-tree very sparingly, as they do not love the knife.

<i>Roses</i> , early cinnamon	White damask
Double yellow	Austrian yellow
Single yellow	Double musk
Red monthly	Royal virgin
White monthly	Rosa mundi, <i>i. e.</i> rose of
Double white	the world, or striped red
Moss Provence	rose
Common Provence	Frankfort
Double velvet	Cluster blush
Single ditto	Maiden Blush
Dutch hundred-leaved	Virgin or thornless
Blush ditto	Common red
Blush Belbic	Barnet leaved
Red ditto	Scotch, the dwarf
Marbled	Striped Scotch
Large royal	Apple-bearing
York and Lancaster	Single American
Red damask	Rose of Menx
Blush ditto	Pennsylvanian
Austrian, with flowers hav-	Red cluster
ing one side red, and the	Burgundy rose
other yellow	Perpetual, or four-season

HARDY CLIMBING ROSES.

The Ayrshire rose	Rosa sempervirens, three
Double ditto	sorts
Rose hybrida multiflora	Rose ruga
Rose Clair	Red Boursault
Rosa Russeliana	Crimson ditto
Reversa elegans	Lady Banks' yellow rose

JASMINES.

Jasmines grow in very irregular forms. Perhaps their luxuriant wild appearance constitutes their chief grace. The jasmine is a beautiful

screen in summer, wreathing its festoons through trellis work; and it appears to me that Nature presents not, in our colder climes, a more fragrant and beautiful bouquet than a mixture of roses and jasmynes.

The common jasmine is hardy, and loves a good soil, by which term I mean kitchen garden soil. Trench round the stem occasionally to lighten the earth, and it will grow very freely. Put litter round the jasmine in severe frost; and if a very rigorous season destroy the branches, the root will be saved, and its shoots in the spring will soon replace the loss. If they shoot out with displeasing irregularity and confusion, take off the least healthy looking branches, and cut away those which grow *rumpled*, for they only consume the juices of the plant to no purpose. The common jasmine is propagated by layers and slips.

The *Arabian jasmine* is very fragrant, but it does not endure cold, or much heat, therefore an eastern aspect suits it best. If the Arabian jasmine is grown in a large pot or box, it could be placed under cover during frost in the winter months; but do not place it in a greenhouse, which would be in the other extreme again.

The *yellow jasmine* may be treated like the common jasmine. It is not very fragrant, but it forms an elegant variety.

I have seen very fanciful and beautiful devices invented to display the beauty of the jasmine. Their shoots grow so rapidly and luxuriantly, that if the plant is allowed to luxuriate, it will soon cover any frame-work with its drooping beauty. The jasmine loves to hang downwards; and I have admired inventive little arbors, where the plant has

been trained up behind them, and the branches allowed to fall over their front in the richest profusion, curtained back like the entrance of a tent. The effect, during their time of flowering, was remarkably elegant.

When you prune the jasmine, cut the branches to an eye or bud, just by the place from which they sprout, and that in such a manner, that the head, when trimmed, should resemble the head of a willow. This method makes them throw out abundance of branches and fine flowers.

Give fresh soil to the jasmine every two years, or they will gradually become weakened in their blooms. The secret of having fine flowers, is in keeping up the soil to a regular degree of strength, as the human frame languishes under change of diet, and becomes weakened for want of food. Thus it is with animate and inanimate nature.

CHAPTER VI.

ORNAMENTAL SHRUBS AND EVERGREENS.

I SHALL speak now of the ornamental shrubs which decorate a flower garden, and which a lady may *superintend* herself, if her own physical powers are not equal to the fatigue of planting. A laborer, or a stout active girl, may act under her orders, and do all that is necessary to be done, in removing or planting flowering shrubs and evergreens.

In planting flowering shrubs, be very particular to plant them at such distances that each plant may have plenty of room to grow, and strike out their roots and branches freely. If shrubs are crowded together, they become stunted in growth, and lanky in form.

If you are forming a clump, or even a plantation, let each shrub be planted six feet apart from its neighbor: but if you wish to plant roses, syringas, honeysuckles, lilacs, &c. in your flower borders, they should be from twelve to fifteen feet distant from each other, so as not to interfere with the flowers growing below them.

Do not plant tall shrubs promiscuously among low-growing ones. Let the taller shrubs form the back-grounds, that each shrub may be distinctly seen. The shrubs should be trained up with single stems, and they should be pruned every year, taking up the suckers, and removing disorderly branches.

By allowing each shrub plenty of room, it will

form a handsome head, and throw out vigorous shoots. You will also have space to dig between the shrubs, and the sun and air can benefit them.

Some of the more beautiful evergreens look extremely well, dotted about the grounds singly or in clumps, but be very particular in planting your shrubs.

For instance, when you wish to transplant or plant a shrub, dig a circular hole sufficiently large to receive the roots of the plant, which must be laid neatly down, while some person holds the shrub in its proper position, straight and upright. Cut away any dead or damaged roots; then break the earth well with your spade, and throw it into the hole, shaking the plant gently, just to let the earth fall close in among the roots. When it is well filled up, tread the earth gently round the shrub to fix it, but do not stamp it, as I have seen people do.

But if you can take up shrubs with a ball of earth round their roots, they do not feel the operation, and their leaves do not droop. Water each shrub after planting; give each of them a good soaking, and let each plant have a stake to support it during the winter.

October is the autumn month for transplanting shrubs, and February and March are the spring months. I always prefer the autumn transplanting, as the rains and showers are so fructifying. March is the last month for transplanting evergreens.

Laurustinus, Phillyreas, and Laurel, are excellent shrubs to plant near buildings, or to hide a wall. They are evergreen summer and winter, very hardy, and quick growing.

The *Pyracantha* is an elegant shrub, with its clusters of red berries ; and it looks gay during the autumn and winter.

The *Arbutus*, or strawberry-tree, is loaded with its strawberries in August, September, and October. This is a beautiful shrub, placed singly on a lawn, kept to one single clean stem, and a fine branching head.

Portugal laurels are beautiful : their deep green leaves, and scented feathery flowers, make them an important shrub in all gardens.

It has been ascertained by a late severe winter, that evergreens are extremely hardy, and will bear any severity of frost. All those evergreens considered most tender, such as Portugal laurels, rhododendrons, &c., were observed to brave the frost unhurt, which were placed in high, unsheltered places, or facing the east and north. It was observed, also, that those evergreens were destroyed whose aspect was south and west, and which lay in warm and sheltered situations. The cause was this. The shrubs did not suffer which were not subject to *alterations* of heat and cold ; while those which lay in warm situations, being thawed by the sun's rays during the day, could not endure the sudden chill of returning frost at night.

Plant your evergreens, therefore, fearlessly in exposed situations ; and care only, in severe winters, for those which are likely to be thawed and frozen again twice in twenty-four hours.

Rhododendrons are very beautiful shrubs, and grow into trees, if the soil agrees with them. They love a bog soil.

The *Camellia japonica* is considered a greenhouse plant, but it becomes hardy, like the laurel,

if care is taken to shelter it for a few winters, when it gradually adapts itself to the climate. This is troublesome, perhaps, as most things are, to indolent people; but the trouble is well repaid by the beautiful flowers of the japonicas, its dark leaves, and delicate scent.

The gum *Cistus* is a handsome evergreen, and looks well any where and every where. Some straw litter spread round their roots in winter is a great protection.

All evergreens of a hard-wooded nature are propagated rapidly by layers, in June or July. This is the method:—dig round the tree or shrub, and bend down the pliable branches; lay them into the earth, and secure them there with hooked or forked sticks. Lay down all the young shoots on each branch, and cover them over with earth about five inches deep, leaving the tops out about two, three or four inches above ground, according to their different lengths. If these branches are laid in June or July, they will root by Michaelmas; but if they are laid in October, they will be a twelve-month rooting.

The layers of *Alaternuses* and *Phillyreas* will sometimes be two years rooting, if done so late as October; therefore lay down your shoots, if possible, in June. Let the shoots which are layered be those of the last summer's growth.

You may propagate shrubs also from cuttings in February and October. Let strong shoots be chosen, of last summer's growth: choose them from nine to fifteen inches long, and, if you can, take about two inches of old wood with the shoots at their base. Trim off the lower leaves, place the cuttings half way in the ground, and plant them in

a shady border to root. Do this in February, in preference to October, as every thing roots earlier from spring operations. You may also plant cuttings in June, but keep them moist and shady.

October is a good month for taking up suckers of lilacs, roses, &c., and for all sorts of transplanting in its varieties. It is also the month to transplant the layers of such shrubs as were laid in the previous October.

I subjoin a list of hardy deciduous shrubs and evergreens, not too tall to admit into a moderately sized flower garden.

DECIDUOUS SHRUBS OF LESSER GROWTH.

<i>Arbutus</i> , Strawberry-tree	Yellow Portugal
Common	White Portugal
Double-flowering	Lucca
Red-flowering	<i>Bramble</i> , double-flowering
Eastern, or <i>Andrachne</i>	American upright
<i>Almond</i> , common	White-fruited
White flowering	Dwarf
Early dwarf, single flower	Thornless
Double-Dwarf	<i>Chionanthus</i> , Fringe, or Snow
<i>Althæa frutex</i> , striped	drop tree
Red	<i>Cauldberry myrtle</i> , broad-
White	leaved
Blue	Long-leaved
Purple	Fern-leaved
Pheasant's eye	Oak-leaved
<i>Andromeda</i> , striped	<i>Cherry</i> , double-blossomed
Evergreen	Cornelian
<i>Azalea</i> , with red flowers	Dwarf Canada
White	<i>Currant</i> , with gold and silver-
<i>Berberry</i> , common, red fruit	blotched leaved
Stoneless, red fruit	With gooseberry leaves
White fruit	Pennsylvanian
<i>Bladder-nut</i> , three-leaved	<i>Dogwood</i> , the common
Five-leaved	Virginia
<i>Broom</i> , the Spanish	Great-flowering
Double-flowering	Newfoundland

- Empetrum*, black-berried heath
Guedder Rose, common
 Double, or snow-ball
 Carolina
 Gold-blotched leaf
 Currant-leaved
Hydrangea, white-flowering
Honeysuckle, early red Italian
 Early white Dutch
 Late Dutch
 Late red
 Long-blowing
 Large scarlet trumpet
 Small trumpet
 Oak-leaved
 Early white Italian
 Early red Italian
Ivy, deciduous, or Virginian creeper
Jasmine, the common white
 Common yellow Italian
 Gold-striped leaved
 Silver-striped leaved
Lilac, blue
 White
 Purple, or Scotch
 Persian, with cut leaves
 Persian, white-flowered
 Persian, blue-flowered
Lonicera, upright Honey-suckle
 Red-berried
 Blue-berried
 Virginian
 Tartarian
Mezereon white
 Early red
 Late red
 Purple
Mespilus, spring-flowering
 Lady Hardwick's shrub
Peach, double-flowering
Privet, common
 Silver-striped
 Yellow-blotched leaves
Ptelea, or American Shrub
 Trefoil
Pemegranate, single-flowering
 Double
Robinia, or false Acacia
 Common
 Yellow-flowered
 Scarlet-flowered, or rose acacia
 Caragana
Rhamnus, or Buckthorn
 Common
 Sea buckthorn
 Yellow-berried
 Creeping evergreen
Raspberry, double-flowering
 Virginian sweet-flowering
Rose, in every variety
Spiræa frutex, common red
 Scarlet
 White
Sumach, scarlet
 Large downy
 White
 Virginia
 Elm-leaved
 Myrtle-leaved
 Carolina
Syringa, common
 Dwarf double-flowering
Scorpion Senna
Smilax, broad-leaved
 Blotched-leaved
Tulip Tree
Tamarisk, the French
 German
Viburnum, or Wayfarer
 Common
 Stripe-leaved
 American broad-leaved
 Maple-leaved

EVERGREENS.

- Alaternus*, common
 Blotched-leaved
 Jagged-leaved, plain
 Ditto, striped
 Silver-striped
 Gold-striped
Cistus, or Rock Rose
 Gum Cistus, with spotted flowers
 With plain white flowers
 Purple sage-leaved
 Male Portugal
 Bay-leaved gum
 With hairy willow leaves
 Black poplar-leaved
 Waved-leaved
 Purple, or true Gum Cistus of Crete, with other varieties
Cytisus, Neapolitan
 Canary
 Siberian and Tartarian
Laurustinus, common
 Broad, or shining-leaved
 Rough leaved
 Oval-leaved
Bay, broad-leaved
 Narrow-leaved
Phillyrea, the true
 Broad-leaved
 Privet-leaved
 Prickly-leaved
 Olive-leaved
 Gold-edged
 Silver-edged
 Rosemary-edged
Juniper, common
 Swedish
 Slavonian
 Canada
Jasmine, evergreen
Pyracantha
Ivy, common
 Striped-leaved
 Virginian
 Irish, or quick-growing
Honeysuckle, evergreen
Rose, the evergreen
Rhododendron, dwarf Rose
 Bay
Katmia, olive-leaved
 Broad-leaved
 Thyme-leaved
Coronilla, narrow-leaved
 Broad-leaved
Magnolia, laurel-leaved
 Lesser bay-leaved
Arbor Vita, common
 China
 American
Cypress, common upright
 Male Spreading
Bignonia, the evergreen
Widow Wail
Locust of Montpellier
Medicago, Moon Trefoil
Stoncrop Shrub
Ragwort, the sea
Holly, common
 Carolina broad leaved
 Yellow-berried
 Many varieties
Laurcls, common
 Portugal
 Alexandrian
Oak, Hex, or evergreen
 Kermes, or scarlet-bearing
 Gramuntian, holly-leaved
 Carolina live
Germander, shrubby, of Crete
Euonymus, evergreen Virginia
Virginia Groundsel tree
Wormwood, lavender leaved
Spurge, or wood laurel
Kneeholm, or Butcher's broom
Horse-tail, shrubby

In pruning shrubs, be careful to cut out the long rambling shoots of the last summer's growth, which disfigure their appearance. Cut away, also, branches of shrubs which interlace each other, that every shrub may stand clear and well-defined. Take away their suckers, and let each shrub be kept to a single stem, as I have before observed.

CHAPTER VII.

MONTHLY NOTICES.

A RECAPITULATION of the work which each month presents to the gardener's notice, will be useful. By occasionally glancing over the Monthly Notices, the memory is refreshed; and it will be found that even the three winter months allow the young gardener no remission from labor. There is something to be done in every week of the year,—something to be attended to, which amuses the mind, interests the imagination, and benefits the general tone of mental and physical health.

JANUARY.

Let your *lawn* and *grass walks* be kept neat and smooth, by rolling, this month; and if any part of the grounds require fresh turf, this is the season for cutting and laying it down. If you live in the neighborhood of a common, that is the best ground for cutting turf, as the herbage is short, and free from nettles, docks, &c. Lay it down firm and even, allowing for the sinking of the newly laid earth, about an inch or two. Roll it well, after having laid down the turf.

Keep the *gravel walks* also from weeds and moss, and roll them in dry weather. If you attempt to roll gravel in wet weather, the gravel clings to the roller.

Dig the clumps or spots where you mean to plant evergreens, in February and March, that the ground may be trenched in readiness. The frost of this month will render newly-dug earth more friable, and the snow will enrich it.

If the weather is very settled and mild, you may still plant out hardy deciduous shrubs, such as sweetbriars, double bramble, double-blossomed cherry, dwarf almond, jasmines, honeysuckles, roses, lilacs, laburnums, guelder rose, *Spiraea frutex*, mezereons, &c. Transplant each shrub with a good ball of earth round its roots.

Prune flowering shrubs now, where they require it, with a sharp knife, not with shears. When I say "flowering shrubs," I do not mean shrubs *in* flower, but shrubs that *do* flower.

Transplant suckers from the hardy flowering shrubs, if they have not been done before. Take them up with good roots and support them neatly with stakes.

Cuttings of young shoots of hardy deciduous shrubs may be planted in mild weather, to root, and form good plants in the autumn. Layers may be also formed.

Protect all the choicer kinds of flowering shrubs, and all cuttings of every kind, from severe frosts, by spreading litter over them.

Plant tulips now—always providing the weather is mild—to blow late in the year; but they will not be so handsome as those which were planted again in September and October.

Plant any ranunculuses, anemones, &c., you may have out of the ground, to come in late blowing; but, like the tulips, they will not bear such fine blooms. Protect every thing from severe weather, as well as you can, this month, particularly your choicer sorts of bulbs, and tuberous-rooted perennials.

FEBRUARY.

February is the first spring month, and the parterre will begin to make gradual approaches to gaiety and life. The anemones, hepaticas, &c., will now bud and flower, if the weather is genial; and the crocus and snowdrop will put forth their blooms to meet the sun on his returning march.

About the end of this month, you may begin to sow the hardy annuals. I prefer April, but it may not be convenient always to wait so long: therefore sow now the seeds of hawkweed, lavatera, Venus's looking-glass, Venus's navelwort, candy-tuft, larkspurs, lupines, convolvulus, flos Adonis, dwarf lychnis, nigella, annual sunflowers, &c.

This month you may plant and transplant, fearlessly, all hardy, fibrous-rooted, flowering perennials and biennials, such as saxifrage, gentianella, hepaticas, violets, primroses of all sorts, polyanthuses, double daisies, thrift, &c.; rose cam-pions, rockets, campanulas, sweet-williams, hollyhocks, scarlet lychnis, carnations, pinks, monk's-hood, perennial asters and sunflowers, &c.

Plant cuttings of roses, honeysuckles, and jasmines.

If the weather is mild, you may transplant many kinds of

evergreen shrubs, such as phillyreas, alaternuses, laurels, laurustinus, pyracanthas, cistuses, &c. Let there be a ball of earth round their roots, when you take them out of the ground.

If box edging is required, plant it now : water it, and the plants will soon root.

Dig the borders carefully and lightly, with your garden fork; make the garden look neat, and free from weeds; clear away dead leaves; sweep the lawn and walks; and let spring advance in its proper order.

MARCH.

Now plant away. Evergreens cannot be moved at a better period. Deciduous flowering shrubs may also be still planted, such as *Althæa frutex*, *syringas*, roses, honeysuckles, mezecons, sunach, laburnums, lilacs, jasmines, candleberry, myrtles, guelder roses, &c.

Where the borders require filling up, the following plants may still be moved, but do it early in this month :—

Lychnises, *campanulas*, Canterbury bells, tree primroses, rockets, sweet-williams, wallflowers, columbines, monk's-hood, rose campions, perennial asters and sunflowers, fox-gloves, &c.

Sow perennial and biennial flower seeds about the last week in this month. Stake your hyacinths, when the flower stems are tall.

Plant out layered carnations of last year, into the places where they ought to remain.

Give fresh earth to any plants in pots, such as carnations, pinks, auriculas, double sweet-williams, double stock gilliflowers, rockets, &c.

Sow annuals of all hardy kinds.

Transplant any hardy roses, which you may wish should blow late in the year.

Plant box, for edgings, still; and roll the lawn and grass walks.

Transplant any tenderer kinds of annuals which you may have been at the pains of raising in, or procuring *from*, a hot bed.

Keep the garden quite free from weeds and dead leaves.

APRIL.

Now place sticks to every plant or stalk requiring support. Fix the sticks, or light iron rods, firmly in the ground; and tie the stems to each stick neatly, in two or three places.

Some *evergreens* may yet be removed, as laurels, laurustinus, Portugal laurel, cistuses, arbutus, magnolias, pyracanthas, &c.

Propagate auriculas, by slipping off their suckers and off-sets, this month.

Sow carnation and polyanthus seeds still. Sow, also, perennial and biennial seeds.

Where any perennial or biennial fibrous-rooted flowers are wanted, transplant them only in the first week of this month, and they must have each a good ball of earth attached to them; but this work should be completed in February, or March at farthest.

Every sort of annual may now be sown.

Take care of your hyacinths, tulips, ranunculuses, and anemones now, for they will be hastening into bloom.

Place your auriculas, hyacinths, &c., which may be in pots, in a sheltered place, during heavy rains or winds; and shelter those flowers which are in the borders as well as you can. Trim them from dead leaves.

Keep your lawn and grass walks nicely mown and rolled, and your borders free from weeds and rubbish.

MAY.

Propagate perennial fibrous-rooted plants by cuttings.

Propagate double wall-flowers by slips of the young shoots of the heads.

Sow annuals for succession; such as sweet-peas, nasturtiums, lavatera, lupines, flos Adonis, &c.

Take up those hyacinths, tulips, &c., which have done flowering, and dry them in the shade to put away.

Weeds grow quickly now: hoe them up wherever you see them. Support all flowers with sticks; train them upright. Clear away all the dead leaves from your carnations, and gently stir the earth round them with your smallest trowel.

Look round the borders now, and take off irregular shoots.

JUNE.

Propagate carnations by layers and pipings. Propagate double sweet-williams and pinks by layers and cuttings or slips.

Propagate perennial fibrous-rooted plants by cuttings of the stalks.

Transplant the large annuals from the seedling bed to places where they are to remain. Let this be done in showery weather, if possible.

Take up all bulbs, ranunculus, and anemone roots, &c., as the flowers and leaves decay.

Water the delicate plants if the weather proves dry: give a moderate watering every evening; but never in the heat of the day.

Sow yet some hardy annuals, such as ten-week stocks, virgin stock, &c.

Plant out China-asters, Chinese hollyhocks, ten-week stocks, large convolvulus, &c., but let each root have a ball of earth round it.

Examine the perennial and biennial plants, to cut off all dead, broken, or decaying shoots. Trim the African and French marigolds from their lower straggling shoots, that they may present a neat upright appearance. Trim the chrysanthemums, which are apt to branch too near the root, and stake them neatly.

Plant out carnations and pink seedlings into their proper places.

Keep every thing just moderately moist, if there is a long drought in this month.

JULY.

You may lay carnations and double sweet-williams still; but let it be done before the end of the second week in this month.

Propagate pinks by slips and pipings.

Transplant the seedling auriculas which were sown last year, as also the seedling polyanthus.

Transplant the perennial and biennial seedlings which were not done last month, to remain till October.

Take up all bulbs as fast as they decay their leaves. If this month prove hot and dry, place your potted carnations in a sheltered situation, and keep them just moist.

Support flowering shrubs and plants, and cut away decayed stems. Keep the borders clean. Mow the lawn and grass walks. Plant autumnal bulbs.

AUGUST.

You may now begin to propagate some double-flowered and approved fibrous-rooted plants the end of the month, if they have done flowering; such, for instance, as the double

rose campion, catchfly, double scarlet lychnis, double rocket, double ragged robin, bachelor's buttons, gentianella, polyanthus, auriculas, &c.

Sow auricula and polyanthus seed on a warm, dry day; and remove carnation layers to some place where they may remain till October to gain strength.

Sow seeds of bulbs.

Sow anemone and ranunculus seed.

Remove all bulbs which have done flowering.

Cut and trim edgings of box. Clip holly, yew, and privet hedges.

Gather flower seeds.

Plant autumnal bulbs, if any are still above ground, such as colchicums, autumnal narcissus, amaryllis, and autumn crocus.

Trim the flower plants; mow the lawn and grass walks, and keep every department in neat order.

SEPTEMBER.

Transplant, in any moist or showery weather this month, the perennial and biennial seedlings to their proper situations, with a ball of earth round their roots.

Propagate fibrous-rooted plants.

Prepare the spots where you mean to deposite anemone and ranunculus roots any time between the end of this month and the end of October; and dig all beds and borders which are vacant, to prepare them also for receiving roots and plants next month.

Transplant peonies, flag irises, monk's-hood, fraxinella, and such like plants, to part their roots and remove each root to its destined position.

Transplant evergreens.

Plant cuttings of honeysuckles, and other shrubs.

Plant hyacinth and tulip roots for early spring bloom.

Plant box by slips or roots.

Mow grass lawn and walks. Clear away flower stems, and trim flowering plants.

Sow seeds of bulbous flowers, if not done last month.

OCTOBER.

This is a very busy month; for the garden should now be cleared and arranged for the season.

Transplant all sorts of fibrous-rooted perennial and biennial plants now where they are intended to remain.

Put the bulbs into the ground again; and transplant the different layered plants into their respective places.

Prune flowering shrubs of all sorts. Plant and transplant all hardy deciduous shrubs, and their suckers.

Dig up and part the roots of all flowers which require so doing, and replant them.

Plant cuttings of honeysuckles, laurels, &c.

Take up the roots of dahlias, and put them carefully away till May.

Trim evergreens.

Plant box edgings; cut away the long, sticky roots, and trim the tops even.

Mow grass walks and lawns, and weed gravel walks.

NOVEMBER.

Prepare compost for a new year, by raking dead leaves, soil, sand, &c. in a heap, to turn well over occasionally. Pour the brine, soap-suds, &c. from the house over it.

Transplant still all hardy kinds of flowering shrubs, suckers, &c.

Clear the borders from dead annuals, leaves, stumps, &c.; shelter the choice bulbs and double-flowering plants.

DECEMBER.

Take care of every thing. Protect the more delicate roots from severe frost, by strewing ashes, sand, or litter over them. Prune shrubs, and dig between them.

If the weather is open, you may still plant hardy sorts of flowering shrubs.

CHAPTER VIII.

THE VEGETABLE GARDEN.

CALENDAR FOR THE SOUTHERN STATES.

JANUARY.—Sow peas, spinach, lettuce, cabbages, radishes, parsley, beets, carrots, salsafy, parsnips, turnips, asparagus. Plant horse radish, Irish potatoes. Transplant cabbages and lettuce.

Remarks.—The best variety of peas for this month are early frame and bishops, for an early crop, and dwarf marrowfat and dwarf green imperial for a succession. Only a few beets, carrots, parsnips, salsafy, and turnips, should be sown this month, as they are all very tender while young, and consequently easily killed. Endive should be tied up for bleaching. It is late to dress artichokes and asparagus beds, but if not done before, they must now be attended to. Irish potatoes planted in the commencement of this month, may have their tops killed by frost in February, but will not be injured; towards the last of the month they may be planted for a general crop.

FEBRUARY.—Sow peas, spinach, lettuce, cabbages, radishes, corn, beets, carrots, salsafy, parsnips, turnips, thyme, sage, and other herbs. Plant Irish potatoes. Transplant cabbages and lettuce.

Remarks.—The same varieties of peas may be sown in this month as were directed for the last. The principal crop of beets and carrots should now be sown. The common varieties of spinach should

be sown in small quantities once in ten days, as it soon runs to seed.

MARCH.—Sow carrots, beets, Swiss chard, parsnips, salsafy, cabbages, spinach, turnips, leeks, tomatoes, peppers, radishes, lettuce, Guinea squash. Plant cucumbers, okra, squashes, melons, snap beans, cushaws, sewee beans, New Zealand spinach. Transplant tomatoes, peppers, Guinea squash, cabbages, and lettuce.

Remarks.—All the above vegetables should be got in at as early a period as possible. Carrots should now be sown for a full crop, and from English seed. Lettuce should remain where it is sown. New Zealand spinach should be sown in hills, three feet apart each way. Radishes should be sown every three weeks. All Irish potatoes should be planted this month. If the season be mild, most of the vegetables mentioned in March may be sown towards the last of the month.

APRIL.—Sow carrots, beets, salsafy, turnips, cabbages, cauliflowers, brocoli, tomatoes, peppers, radishes, lettuce, celery, leeks. Plant okra, snap beans, squashes, sewee beans, cucumbers, cushaws, melons. Transplant cabbages, tomatoes, peppers, Guinea squashes. Prick out celery.

Remarks.—The sowing of the main crop of carrots for summer and autumn, ought not to be delayed longer than this month, as they will be easily killed when up. The seed should be from Europe, or they will run to seed in the fall. Cucumbers, squashes, and melons, do not succeed well if delayed until now, but a few may be sown. The same remark applies to beets, salsafy, parsnips, and turnips.

MAY.—Sow cabbages, savoys, carrots, beets

turnips, cauliflowers, brocoli, celery, radishes. Plant snap beans. Transplant cabbages. Prick out celery.

Remarks.—There is not much probability of either beets, parsnips, carrots, or turnips, succeeding at this season, especially the last; yet if wanted, a few may be ventured; under very favorable circumstances, they may succeed. If carrots be sown, the ground should be shaded and kept moist, and this continued to the plants sometime after they are up, or they will be killed by the hot sun.

JUNE.—Sow cauliflowers, brocoli, cabbages, carrots, tomatoes. Plant snap beans, orka. Transplant celery, cabbages, leeks. Prick out cauliflowers, brocoli, and celery.

Remarks.—This month is generally very dry and hot, and all the crops recommended to be sown now, must be protected from the sun: most of them should have been sown in April, and it is only in case of failure or omission, that they should now be sown; the month may be considered bad for the sowing of seeds generally.

JULY.—Sow early Dutch turnips, ruta бага, carrots parsnips, cabbages, cauliflowers, brocoli, endive, radishes, spinach. Plant snap beans, Irish potatoes, melons. Transplant cabbages, celery, cauliflowers, brocoli, tomatoes, and leeks.

Remarks.—A few only of carrots, parsnips, spinach, or radishes, should be sown, as it is not very probable that they will succeed, unless well protected from the sun for some length of time, while young. The early Dutch turnips should also be sown towards the middle and last of the month, *in small quantities*. The Irish potatoe will be fit for use in October, and the tomatoes will furnish a sup-

ply when the spring-sown crop has ceased to bear, and then continue till killed by a frost.

AUGUST.—Sow peas, early Dutch and other varieties of turnips, ruta бага, onions, cabbages, cauliflowers, brocoli, black Spanish radishes, carrots, beets, parsnips, salsafy, lettuce, and endives. Plant snap beans. Transplant cabbages, cauliflowers, brocoli, celery, ruta бага, and endive.

Remarks.—Not much can be expected from peas sown this month, as they will be much crippled by the high winds and rain which we usually have; but if much wanted, a few may be ventured. The beets and spinach are liable to the attacks of the worms, which destroy their leaves: should they escape these, they will be very fine.

SEPTEMBER.—Sow early Dutch and other varieties of turnips, ruta бага, beets, Swiss chard, mangle wurzle, carrots, parsnips, salsafy, lettuce, spinach, cabbages, (English seed,) onions, radishes, endive. Plant snap beans. Transplant ruta бага, cabbages, cauliflowers, brocoli, celery, lettuce, leeks, endive.

Remarks.—In this month the principal crops of turnips, beets, carrots parsnips, &c. should be sown, as they will acquire sufficient strength to withstand the cold weather before the winter sets in. When thinning out the ruta бага, the plants should be reserved and transplanted out either into those spaces where they have failed, or into a piece prepared expressly for them. If the cabbage seed are not English, they will run to seed in the spring without heading.

OCTOBER.—Sow cabbages, lettuce, carrots, beets, turnips, radishes, spinach, salsafy, parsnips, ruta

baga. Transplant cabbages, cauliflowers, brocoli, onions, lettuce, leeks, and endive.

Remarks.—If any of the crops recommended above have not been sown, they should not be neglected longer; most of them may be sown with considerable advantage. The artichokes should in this month be attended to, the suckers removed, and manure given. Strawberries should be set out this month; they will bear in the ensuing spring.

NOVEMBER.—Sow peas, cabbages, radishes, carrots, spinach, turnips, parsnips, lettuce, beets, salsafy. Plant mazagon and Windsor beans. Transplant cabbages, lettuce, onions, and leeks.

Remarks.—The first crop of peas may be sown about the commencement of this month, and a general crop towards the last, though it is better to defer this until the next month. The dwarf marrowfat and dwarf green imperial are the best varieties for sowing. The asparagus beds should now be dressed, and a good supply of manure given.

DECEMBER.—Sow peas, spinach, radishes, carrots, salsafy, lettuce, cabbages, beets, parsnips. Plant Irish potatoes, mazagon and Windsor beans. Transplant cabbages, lettuce, and onions.

Remarks.—Any of the variety of peas may be sown in this month. The Irish potatoes will come up so early as to have their tops destroyed by frost, but will not be injured materially, if at all, by this. All seeds sown during this month, except spinach, peas, and beans, must be protected in cold weather.

CHAPTER IX.

VEGETABLE AND FLOWER GARDEN.

CALENDAR FOR THE NORTHERN STATES.

From the Lady's Annual Register.

JANUARY.—The New Year has come. The old one, with its joys, its sorrows, its labors, its repose, its temptations, its conquests, its light or dark hours, is gone. The preparations for New Year are over—the Gifts are all arranged—nothing remains but the joyful distribution of them. Much is to be regretted in the past year. For the future, there should be nothing but hope and good resolution. This year is at least now unstained by sin; strive that it may long continue so; think not of the past, except as a warning and encouragement for the future, trust humbly in a good Providence, and keep boldly on. If you have parted with friends during the past year, resolve to bestow more kindness and love on those that remain. If God has blest you with wealth, dispense it to the needy, with a more liberal hand. If your means have been lessened, take to yourself a double portion of content, and show your ingenuity in making a little answer. Whatever you do, do well and cheerfully.

FEBRUARY.—Still winter reigns. February has not the charm and excitement of January, the New Year's holidays, presents, &c., to reconcile us to it.

It has only cold weather, snow storms, and now and then a warm day. But the sun is drawing nearer to us; when it does shine, it is to some purpose; and in this month comes the birthday of Washington, and that day is frequently celebrated by social meetings, balls, and parties. It is also a short month, and it is the last month of Winter, and we bear it as well as we can, because we feel that spring, at least in name, is coming. In the latter part of the month it is well to sow mignonette in pots and boxes in the windows. It brings it forward early, and it smells so sweet, that one who has once enjoyed it will hardly be willing to do without it. Parlor flowers should be well watched, for some of the nights of this month are very cold. The proverb is,—

“As the days begin to lengthen,
The cold begins to strengthen,”

and it is not less true of the nights. Many a tender parlor plant which has lived through December and January, is touched by the cold nights of February and March. A large cloth thrown over the flower stand is a protection. Some persons recommend a bowl of water to be placed under the cloth with the plant. If, notwithstanding all precautions, they should be touched with the frost, they should be sprinkled in the morning with cold water; this will sometimes prevent them from dying.

MARCH is a cold, blustering month. With us it is often the most uncomfortable one in the year. The old farmers used to say they could depend on “six weeks sledding in March.” We have sometimes, however, a few warm and pleasant days to give us a foretaste of spring. It is not desirable

that they should continue long enough to bring forward vegetation in any great degree, for we are certain to have cold weather after it. We had better bear patiently the cold and bleak winds while we are clad in furs, than be compelled to lay them aside only to take them up again. The rains which come from time to time are apt to be cold, and often mingled with snow. If the weather should be warm at the very end of the month, the snow-drop may be looked for, the first flower of spring, and such a hardy little thing, that it does not mind if a snow storm comes along and covers it up for a day or two. As soon as the sun melts it off, it looks as bright as ever again.

APRIL.—If the weather is favorable, and we are not visited with snow storms and cold rains, as is too often the case, some preparation may now be made for a garden. Asparagus beds may be prepared, beans and peas sowed, and potatoes for early use may be planted. Housewives will endeavor to make preparation for a variety of the fragrant and medicinal herbs used in a family, fennel, marjoram, sage, parsley, lavender, balm, mint, &c. Garden vegetables, lettuce, onions, parsnips, radishes, and salsafy, may be sowed. Cucumbers under pots and glasses.

Toward the end of the month, flower seeds may be sown. If bulbs were put into the ground last year, they will begin to be in blossom this month in sunny places, which are sheltered from the cold winds. The crocus and snow drops, the narcissuses, will show their flowers, and the crown imperials, tulips, and hyacinths, will be giving promise of their future beauties. The flower beds must now be raked fine. If rose bushes and other shrubs

are to be removed, the best time is soon after the frost leaves the ground. The tops of rose bushes should be cut off, which makes them bloom stronger. Perennial and biennial seeds should be sown in a bed by themselves, and moved to the flower garden when of a proper size. As a general rule, flower seeds are better to be rolled into the ground with a roller, or pressed in with a board, as some kinds will not otherwise vegetate. It is necessary to rake the ground a little before sowing, as it becomes hard by the frequent rains which fall this month. The following are some of the seeds which may be sown toward the middle and end of this month: White Chrysanthemum, Prince's Feather, Red Lavatera, Grand flowering Argemonte, Night flowering Primrose, Scorzoneria, Scarlet Malope, White Catchfly, Pot Marigold, African Rose, Azure Blue Gilia, Sweet Alyssum, White Candytuft, Mignonette, and some others. In removing plants from one part of the garden to another, take up a large portion of the earth, that the roots may be disturbed as little as possible. The pretty little wild flower, called the May flower, (*Epigeia Repens*) is seen in some parts of the country in the course of this month; the leaves are evergreen under the snow, and as soon as this cold covering is removed, the little flower appears. It grows in abundance at Plymouth, Mass., and is said to have been the first flower which saluted the eyes of the Pilgrim fathers, after their arrival on these shores, and to have received its name from that circumstance.

MAY.—Tomatoes may be sowed in a warm situation. Plant cucumbers, melons, and squashes. Plant beans. Weed and thin radishes. Plant corn for the table. Weed plants that may have

come up. Sow turnips and peas. Transplant early lettuce. In the middle of the day, when the weather is mild, cucumber frames may be opened to inure the young plants to the air. But they must be carefully shut up at evening.

This is the time, if the season be favorable, for Hyacinths and Narcissuses. There are some early Tulips, but none so fine as those which appear later. The Dwarf Phlox begins to show its lively flowers, and the Dwarf Iris. The Periwinkle is also seen at the end of this month, with its pretty blue flowers and myrtle like leaf. The seeds to be sown this month are, Morning Glory, Starry Ipomea, Nasturium, Balloon vine, Red four o'clock, Violet Zinnia, Yellow Immortal flower, Blue Commelina, Tricolored Amaranthus, Red Opium Poppy, French Marigold, Blue Lupine, Double Carnation, Poppy, Double purple Balsams, Scarlet Cacalia, Wing leaved Schizanthus, Thunbergia, and others.

JUNE.—Such seeds as were not planted the last month, must now be put into the ground. Toward the last of the month, melons and cucumbers for pickling must be sowed. Those cucumbers which are under glasses, must be watered and the frames lifted up during the day, that they may have fresh air. It is safest to close them at night, particularly in the early part of the month, as the nights are occasionally cold. Trenches must be prepared for transplanting young celery plants. Onion and asparagus beds must be kept carefully weeded. Young vegetables, which have been transplanted, should be watered at night.

The annuals must be thinned out, and such as are wanted to mix with the perennials must be

transplanted the last part of this month, the surface of the ground must be kept light, and no weeds suffered to remain. The Peoney is now in its glory; many superb varieties of this flower have been introduced from China; the common species was introduced into Antwerp a little more than two hundred years ago, and then sold for an enormous price. It is now common in every garden. It is said that there are as many as fifty different species and varieties, some a pure white, blush, and shades of red and purple. As soon as the foliage of the Tulips begins to turn purple, the roots should be taken up and laid in a shady place to dry, as also the Crocuses. The Crown Imperial should also be removed the last of the month. The Hyacinths are longer in coming to maturity; in about two months from the time of blowing, when the leaves begin to turn yellow, which is about the middle of July, they may be taken up and treated in the same manner as the tulips.

JULY.—Garden seeds must be gathered as they ripen, and arranged, when dried, in paper bags, with the name written upon them, ready for the next year's planting. Garden seeds for the late and winter crops may be sowed. Those cauliflower plants which were sown in May, may be now planted out in rows; they will ripen in October and November. Turnip beds may be thinned out, but in doing this, care must be taken to pull away those only which are the most feeble looking, and where they are growing too closely together. Choose the healthiest plants to remain, and let them stand about six inches from each other. People who are fond of having crops of garden vegetables succeed each other until late in

the season, will sow peas again this month. Onions which have attained their full size and are beginning to change to a yellow color, should have their tops bent down to the earth, which prevents the vigor and juice from running all into the stems. The vines of the cucumbers should be disposed in straight lines, and the earth carefully dug about the stems of the plants. When the weather is hot and the ground very dry, the young crops and the plants lately transplanted, should be watered.

The flower garden continues in its glory, increased, if any thing, by the later Roses, the Pinks, Carnations, Larkspurs, Feverfew Coreopsis, Phloxes, Canterbury Bell, and many others. The plants should be kept neatly tied up to sticks, and the flower beds neatly weeded. They require constant attention, as the weeds as well as the flowers know this is their growing time. Flowers which have been kept in the house during the winter, are thought by some persons to be improved by being set out in the garden, the pots sunk into the earth. It is often advantageous to them to take them (at least the common kinds, such as roses and the more hardy geraniums,) from the pots, and place them in the ground during the hot weather. Double pinks and carnations may be propagated by layers. They can also be increased by piping, which is done by cutting off the sprouts entirely, and setting them in small pots, which, if covered by a tumbler, will form roots. An immense number of varieties of carnations and pinks are cultivated by florists.

AUGUST.—The weeds grow so fast at this season of the year, that they require constant attention. Young weeds must be cleared from the beds

of young plants, and old ones must be cut down before their seed ripens, or the wind will scatter it about the garden.

The flowers this month are all of a gorgeous, brilliant appearance. There is the Sun Flower, the red, red and white Hibiscus, the Double Hollyhocks of various colors; the white and Pyramidal Phlox, the Tiger Lily. Not much is to be done in the flower garden, but to save seeds, as they become ripe; cut down decayed plants, and tie up and trim others of their superfluous foliage. The arbors are now fully covered with odoriferous vines, and are a delightful retreat toward evening, when the honeysuckles give out their most delicious odor.

SEPTEMBER.—There is not much to be done with the garden now but to enjoy its fruits, and its brilliant though somewhat gaudy flowers. One of the most beautiful of them is the Dahlia, which has, within a few years, been introduced into the gardens of New England. It was not much cultivated in England until the year 1814. It is a native of Mexico, and was named after a Swedish botanist of the name of Dahl, a pupil of the celebrated Linnæus. The first introduced into Europe was a purple one, in 1789, which was single. Since then there have been very numerous and beautiful varieties introduced. They are produced either from the seeds or by dividing the roots. They will flower the first year from the seed, but very few will be double. The finest varieties are propagated by dividing the roots, which are tuberous, and resemble the sweet potatoe. As soon as the frost has blackened the tops, they should be dug up and put into a warm, dry cellar, secure from frost. When the spring returns, they must be divided by a

sharp knife, being careful to leave a bud on each bulb, or else they will not grow. Gardeners also raise them by cuttings.

OCTOBER.—Though the flower garden is now hardly beautiful enough to lead us to meet the fogs of a chilly October morning, yet in the middle of the day it still looks brilliant, with its high colored, but scentless flowers. The sweet Alyssum, however, does not deserve the latter appellation, and that may still be found by the side of the modest and ever welcome Heart's-ease, which, under any of its names, or of whatever species, deserves all the praise of the hundred and one sonnets which have been written in its honor.

Bulbous roots may be planted this month. Holes should be dug one foot and a half deep, and filled with a previously prepared compost of one third fine river sand, one third decayed scrapings of the cowyard, and one third well rotted pasture turf. Polpenthus, Narcissus, Peonies, Crown Imperials, and Lilies should be planted five inches deep from the top of the bulb. Hyacinths four inches; Tulips, Narcissus, and Jonquils three inches, and Crocuses and Snowdrops two inches.

During this month it is well to dress asparagus beds. This will be done by cutting down all the weeds into the alleys, digging these one spade deep, and spreading the earth evenly over the beds. The old beds must be covered with quite rotten manure, and afterward with the earth from the alleys. Remember to carry away, immediately, the stalks of the old plants and the weeds. In the latter part of the month, (if the weather be dry,) the carrots and potatoes may be dug up and carried into the cellar for winter use. All the spare

ground too should be well dug and trenched. The baking and other winter pears and apples should be carefully gathered, not bruised. The raspberries may be pruned this month, and the young suckers removed to create new plants. Make fresh layers of carnations. Dig and dress up the flower borders, and transplant such flowers as may be found necessary. Divide the roots of others that have increased too much. Prune and plant all flowering shrubs and evergreens. Weed the gravel walks frequently and thoroughly.

NOVEMBER.—In the flower garden clear all the beds from dead annual plants, pulling them out by their roots. Cut down, too, all the dead stalks of perennials, then hoe the borders of a dry day, clear away the weeds, and rake the whole smooth. The soil in the spring will be greatly improved by being manured at this time, for the frost and sun and air all contribute to render it fine and mellow for the spring crops.

DECEMBER.—The garden is hard bound by the frost, or covered over with its garment of snow; it affords now no occupation or pleasure. The greenhouse, to those who are so fortunate as to possess a luxury of this kind, must take its place. For lack of this, a flower stand, filled with flowering shrubs, is a source of pleasure. Care must be taken to keep the leaves of parlor plants washed clean, the earth moist, and loosened about the roots. If the plants are in a room which is daily swept, it is better to throw a large cloth over them to protect them from the dust, which is very injurious to the plants.

CHAPTER X.

MANAGEMENT OF PLANTS IN ROOMS.

From the Lady's Book of Flowers and Poetry.

PERHAPS a few hints on the management of plants in rooms, may not be unacceptable to our readers. We, therefore, extract from Paxton's Magazine of Botany, the following observations:—

“Hints on the general management of plants are attended with considerable difficulty; every genus requiring some little variation, both in soil, water, and general treatment. If the room where the plants are intended to be placed, is dark and close, but few will ever thrive in it; if, on the contrary, it is light and airy, with the windows in suitable aspect to receive the sun, plants will do nearly as well as in a greenhouse. If observed to suffer, the effects may be traced to these causes, either want of proper light and air—injudicious watering—filthiness collected on the leaves—or being potted in unsuitable soil.

“1. *Want of proper light and air*, is perhaps the most essential point of any to be considered; for, however well all other requisites are attended to, a deficiency of these will always cause the plant to grow weak and sickly. Let them always be placed as near the light as they can conveniently stand, and receive as much air as can be admitted when the weather will allow. Those persons who have no other place than the house to keep them in, will find that they derive immense advantage from

being, during fine weather in spring or autumn, turned out of doors in the evening, and taken in again in the morning, the night-dews contributing greatly to their health and vigor.

“2. *Injudicious watering* does more injury to plants in rooms than we imagine. To prevent the soil ever having the appearance of dryness, is an object of importance in the estimation of very many; they, therefore, water to such an excess that the mould becomes sodden, and the roots perish. Others, to avoid this evil, give scarcely water enough to sustain life. This, however, is by no means so common a practice; for, in general, if any thing appears to be the matter with the plant, large doses of water are immediately resorted to, for an infallible restorative. This overplus of water will show its bad effects by the very dark color, and flabby disposition of the leaves; but if the plant receives too little water, its leaves will turn yellow, and eventually die.

“The best plan is, to always allow the soil in the pot to have the appearance of dryness (but never sufficient to make the plant flag,) before a supply of water is given, which should then be pretty copious; but always empty it out of the pan or feeder, in which the pot stands, as soon as the soil is properly drained. The water used for the purpose ought always to be made about the same temperature as the room in which the plants grow; never use it fresh from the pump, either let it stand in a room all night, or take off the chill by a little warm water, otherwise the growth of the plants will be much checked.

“3. *Extraneous matter collected on the leaves* may either arise from insects or dust; the former

may be speedily remedied, by placing the plants under a hand-glass, or any thing that is convenient, and burning some tobacco until they become well enveloped in the smoke ; and the latter may be removed by occasionally washing them on the head with pure water, either by means of a syringe, the nose of a watering pan, or with a sponge, when the dust still adheres.

“ *Bulbs* of most sorts flourish in rooms with less care than most other plants. Hyacinths should be planted in autumn. Fill the pots with light rich soil, and plant the bulbs so shallow that nearly half the bulb stands above the soil, place the pots in the open air, and cover them six or eight inches with rotten bark. During spring, take them out as they are wanted to bring into flower, and set them in the window of a warm room, where they will be exposed to the sun. When the leaves begin to decay after flowering, give them no water ; when the leaves are dead, take them out of the soil, and lay them in an airy situation for planting.

“ If grown in water-glasses, they require to be placed in a light airy situation, and the water must be changed every three or four days.”

CHAPTER XI.

FLORA'S REVEALINGS.

A.

- Acacia.* Chaste Love.
Acanthus. The Arts.
Almond. Heedlessness.
Aloe. Acute Sorrow or Affliction.
Althæa Fruter. Persuasion.
Amaranth. Immortality.
Ambrosia. Love returned.
American Cowslip. You are my divinity.
American Elm. Patriotism.
American Linden. Matrimony.
American Star-Wort. Welcome to a Stranger.
Anemone. Sickness.
Apple-Tree Blossom. Fame speaks him great and good.
Ash. Grandeur.
Ash-Leaved Trumpet-Flower. Separation.
Aspen-Tree. Lamentation.

B.

- Bachelor's Button.* I with the morning's love have oft made sport.
Balm. A cure.
Balsam. Impatience.
Barberry. Sourness.
Bay-Berry. Instruction.
Bay-Leaf. I change but in dying.

- Bay-Wreath.* The Reward of Merit.
Beech-Tree. Grandeur.
Bell-Flower. Constancy.
Birch. Gracefulness.
Bird-Cherry. Hope.
Black Poplar. Courage.
Black Thorn. Difficulty.
Blue Bottle Centuary. Delicacy.
Blue Pyramidal Bell Flower. Constancy.
Box. Stoicism.
Bramble. Remorse.
Branch of Currants. You please all.
Branch of Thorns. Severity or Rigor.
Bud of a white Rose. A Heart ignorant of Love.
Butter-Cup. Childishness.
Butterfly Orchis. Gaiety.

C.

- Cabbage.* Profit.
Canterbury Bell. Gratitude.
Cardinal's Flower. Distinction.
Catalpa Tree. Beware of the coquette.
Cedar of Lebanon. Incorruptible.
Cedar Tree. Strength.

Chamomile. Energy in adversity.

Cherry Tree Blossom. Spiritual beauty.

Chesnut Tree. Render me justice.

China Aster or, Chinese Starwort. Variety.

China or Indian Pinks. Aversion.

China Rose. Beauty always new.

Cock's comb, or crested Amaranth. Singularity.

Common Bramble. Envy.

Common Cactus, or Indian Fig. I burn.

Common Laurel in Flower. Perfidy.

Common Reed. Complaisance.

Common Thistle. Importunity.

Coriander. Concealed merit.

Cowslip. Pensiveness.

Cranberry. Hardiness.

Creeper Cereus. Horror.

Crocus. Cheerfulness.

Cross of Jerusalem. Devotion.

Crown Imperial. Majesty and power.

Cypress. Despair.

Cypress Tree. Death and Eternal Sorow.

D.

Dahlia. Instability.

Daisy. Innocence.

Damask Rose. Freshness of complexion.

Dandelion. Oracle.

Dew Plant. A Serenade.

Double Daisy. Participation.

Dragon Plant. Snare.

Dried Flax. Utility.

E.

Elder. Zealousness.

Elm. Dignity.

Endive. Frugality.

Ever-Flowering Candy-Tuft. Indifference.

Evergreen. Poverty.

Everlasting. Never-ceasing Remembrance.

F.

Fennel. Worthy all praise.

Fern. Fascination.

Fig. Argument.

Fig-Tree. Prolific.

Filbert. Reconciliation.

Fir. Time.

Flax. Fate.

Flower of an Hour. Delicate beauty.

Forget me-not. True Love.

Frankincense. The incense of a faithful heart.

French Honeysuckle. Rustic Beauty.

French marygold. Jealousy.

Full Blown Rose. Beauty.

G.

Garden Marygold. Uneasiness.

Garden Ranunculus. You are rich in attraction.

Garden Sage. Esteem.

Glory Flower. Glorious Beauty.

Grape, Wild. Charity.

Grass. Submission.

Great Flowered Evening Primrose. Inconstancy.

H.

Hare-Bell. Delicate and
Lonely as this Flower.
Hawthorn. Hope.
Hazel. Reconciliation.
Heath. Solitude.
Hellebore. Calumny.
Hemlock. You will cause my
Death.
Hickory. Glory.
Hoarhound. Frozen Kind-
ness.
Holly. Foresight.
Hollyhock. Fecundity.
Honesty. Honesty.
Hop. Injustice.
Horse Chesnut. Luxuriancy.
Hundred-Leaved Rose. Grace.
Haycinth. Play or Games.
Hydranger. Boaster.

I.

Iceland moss. Health.
Ice Plant. You freeze me.
Indian Cress. Resignation.
Iris. Message.
Ivy. Fidelity.

J.

Japan Rose. Beauty is your
only attraction.
Juniper. Asylum.

K.

Kennedia. Mental Beauty.
King-Cup. I wish I was rich.

L.

Laburnum. Pensive Beauty.
Lady's Slipper. Capricious
Beauty.
Larkspur. Levity.
Laurel. Glory.

Laurel-Leaved magnolia. Dig-
nity.

Lavender. Assiduity.

Lemon. Zest.

Lettuce. Cold-Hearted.

Lichen. Solitude.

Lilac. Forsaken.

Lily of the Valley. Return of
Happiness.

Lime or Linden Tree. Conju-
gal Fidelity.

Live Oak. Liberty.

Lobelia. Arrogance.

Locust. Vicissitude.

London-Pride. Frivolity.

Lotus-Flower. Silence.

Love lies a-Bleeding. Hope-
less not Heartless.

Lucerne. Life.

Lupine. Voraciousness.

Lythrum. Pretension.

M.

Madder. Calumny.

Maize. Plenty.

Mallow. Sweet Disposition.

Mandrake. Rarity.

Maple. Reserve.

Majoram. Blushes.

Marsh mallow. Humanity.

Marygold. Despair.

May Rose. Precocity.

Meadow Saffron. My best
days are past.

Mignonette. Your qualities
surpass your charms.

Miscotoe. Obstacles to be
overcome or surmounted.

Mock Orange. Counterfeit.

Moss. Recluse.

Moss Rose. Voluptuous
Love.

Motherwort. Concealed
Love.

Mountain Ash. Prudence.
Mulberry Tree. Wisdom.
Mushroom. Suspicion.
Musk Rose. Capricious
 Beauty.
Myrtle. Love.

N.

Narcissus. Egotism.
Nasturtium. Patriotism.
Nettle. Slander.
Night Blooming Cereus. Trans-
 sient Beauty.

O.

Oak. Hospitality.
Oats. The witching soul of
 music, hers.
Oleander. Beware.
Olive. Peace.
Orange Flowers. Chastity.
Orange Tree. Generosity.
Osier. Frankness.

P.

Palm. Victory.
Paince or Heart's Ease. You
 occupy my thoughts.
Parsley. Feast or Banquet.
Passion Flower. Religious
 Superstition.
Pea. An appointed meeting.
Peach Blossom. I am your
 captive.
Penny Royal. Flee away.
Peony. Bashful shame.
Persimon. Bury me amid
 Nature's Beauties.
Pine. Pity.
Pine Apple. You are per-
 fect.
Plum Tree. Independence.
Pomegranate. Foolishness.

Poppy. Consolation to the
 sick.

Prickly Pear. Satire.
Pride of China. Dissension.
Primrose. Early Youth.
Pyrus Japonica. Fairies'
 Fire.

R.

Ragged Robbin. Wit.
Red Mulberry. Wisdom.
Red Pink. Lively and pure
 love.
Rose. Genteel, Pretty.
Rose, Acacia. Elegance.
Rose Campion. You are
 without pretension.
Rosemary. Fidelity.
Rudbeckia. Justice.
Rue. Grace, or Purification.
Rush. Docility.

S.

Saffron Flower. Do not
 abuse.
Saffron Crocus. Mirth.
Scarlet Floccred Ipomea. At-
 tachment.
Scarlet Fuchsia. Taste.
Scarlet Geranium. Prefer-
 ence.
Scarlet Nasturtium. Splen-
 dor.
Scotch Fir. Elevation.
Small White Violet. Candor
 and Innocence.
Snap Dragon. Presump-
 tion.
Snow Ball. Thoughts of
 Heaven.
Snow Drop. Consolation.
Sorrel. Wit ill-timed.
Southern Wood. Jest or Ban-
 tering.

Spanish Jasmine. Sensuality.

Stinging Nettle. Cruelty.

Strawberry. Perfect Goodness.

Sun Flower. False Riches.

Sweet Briar. Poetry.

Sweet Pea. Delicate Pleasure.

Sweet Violet. Modesty.

Sweet William. Craftiness.

Sycamore. Woodland Beauty.

T.

Tansy. Resistance.

Thorn Apple. Deceitful Charms.

Thyme. Activity.

Tiger-Flower. For once may Pride befriend me.

Tulip. Declaration of Love.

Turnip. Charity.

V.

Verbena. Sensibility.

Vernal Grass. Poor but Happy.

Vine. Drunkenness.

Virginian Spiderwort. Momentary Happiness.

W.

Wall Flower. Fidelity in Misfortune.

Walnut. Intellect.

Water Melon. Bulkiness.

Weeping Willow. Melancholy.

Wheat. Riches.

White Jasmine. Amiability.

White Lily. Purity and Modesty.

White Mullin. Good Nature.

White Oak. Independence.

White Pink. Talent.

White Poplar. Time.

White Poppy. Sleep of the Heart.

White Rose, Dried. Death preferable to loss of Innocence.

White Violet. Purity of Sentiment.

Willow. Forsaken.

Willow Herb. Pretension.

Winter Cherry. Deception.

Witch Hazel. A Spell.

Wood Sorrel. Maternal Tenderness.

Wormwood. Absence.

Y.

Yellow Carnation. Disdain.

Yellow Day Lily. Coquetry.

Yellow Gentian. Ingratitude.

Yellow Iris. Flame of Love.

Yellow Rose. Infidelity.

Yew. Sorrow.

Z.

Zinnia. Absence.

CHAPTER XII.

We add this chapter, which we have selected from Mrs. Laudon's *Ladies' Companion to the Flower Garden*, that our readers may have the benefit of her very excellent remarks on *Planting*, and on the *Gathering and Preservation of Seeds*.

PLANTING.

Planting is the operation of inserting plants in the soil, either in the free ground or in pots. The simplest kind of planting is that which consists in removing small seedling plants, or such as have been struck from cuttings or layers; and this is commonly performed by making a round hole with a dibber, and putting in the root of the plant to the same depth as it had been covered with earth before, and making it fast by thrusting the dibber into the firm earth beside the hole, and pressing it to the root. In this operation, the great art is to make the root fast at the lower extremity. Thus, in planting common seedlings of annuals, or even cabbage-plants, if the earth be pressed close to the root at the upper part, and not at the extreme points, the success will hardly be complete; and in tender plants, or in a dry season, a failure will be the result. In planting plants of a larger size, a small pit should be opened by the spade or trowel, the bottom of the pit having been formed into a cone or small hill, the plant should be placed in the centre, and the roots spread out equally over it on ev-

ery side. The roots are then to be covered with soil gently pressed over them; and the operation must be finished by watering, so as to consolidate the soil equally, without making it firmer on one part of the roots than another. If the soil should have been previously dug, trenched, or loosened to the depth of a foot, or probably two feet or three feet, the pit should not be made so deep as to throw the neck or collar of the plant below, or even on a level with the surface, when the soil is consolidated by watering. On the contrary, it must be left of such a height above it, as that when the soil is finally consolidated by its own gravity, influenced by the weather, the neck shall still be above the general surface of the ground, and the plant stand on a small hillock. This condition of planting cannot be too carefully attended to; for nothing can be more injurious to transplanted plants than having the neck buried more than it was in a natural state. Nothing is more common than too deep planting; and the temptation to it is the greater, because deep planted plants, from having the roots more accessible to moisture, are more certain of growing the first year, and are less in want of mulching to exclude the heat and drought, and of staking to prevent them from being moved by the wind. Hence, in planting trees or shrubs, it is of the greatest importance, not only with a view to their future growth, but also to their natural appearance above the surface, to have them planted on little hillocks, greater or less in height, according as the soil may have been moved to a greater or less depth, either in the operation of digging the pit in firm soil, or in planting in soil which has been moved by digging, or trenching, or otherwise. In

small gardens it is generally desirable, for the sake of producing immediate effect, to plant plants of considerable size; and in this case, in addition to the precautions which have been already mentioned, it is desirable to plant by what is called fixing with water. This operation is performed in the following manner: the hole being properly prepared, the plant placed in it, and the roots spread out on every side, and extended as far as they will go, one person holds the plant upright, a second sprinkles earth over the roots, and a third supplies water from a watering-pot, with a rose on, if the plant be small, and without a rose, if it be a tree of six feet or eight feet in height, holding the pot as high above his head as his arms will reach. The weight of the water coming down from such a height, consolidates the soil about the roots, and fixes them in such a manner, as to render the plant, if it has been carefully taken up, almost in the same state as it was in before removing. Large trees or shrubs, if planted in this manner in the autumn, and staked, where there is danger from high winds, will grow, and even flower and fruit, the following year, as well as if they had not been removed. In this kind of planting, with large plants, the hillock, left after the operation is finished, should not be less than a foot or eighteen inches above the surrounding surface; and to lessen evaporation during the ensuing summer, the hillock should, if possible, be covered with short litter, moss, turf turned upside down, or even small stones, for the first year. In staking large plants of this kind, the stakes should be placed close to the stem of the plant, in which position they are much less likely to injure the fibrous

roots, than when placed at a distance from the tree; and the stakes should be made fast to the stem of the plant, by a piece of straw or hay rope, or by a piece of twisted matting, or any kind of cord; the part of the stem to which the stake is tied, having previously had a small handful of straw, or moss, or mat, bound round it, to prevent the tie from galling the bark of the stem, and preventing its increase during summer. These stakes should remain for a year, or sometimes two years, according to the size of the plant and its facility of making roots. In general, the sooner the stakes are taken away the better; because the motion of the stem by the wind, is essential to its increasing in thickness. In this matter much must be left to the discretion of the planter, who must always bear in mind that a staked plant is in a most unnatural position; and also that if the tree should lean somewhat to one side for some years after planting, it will ultimately become more or less erect; and that a strong, vigorous-looking plant leaning a little to one side, affords a greater evidence of its being secure and in sound health, than a straight, erect plant, kept in that position by a stake. In the case of planting trees with stems three or four inches in diameter, in exposed situations, two or three stakes may be used, placed at a short distance from the base of the stem and leaning towards it; and where they are made fast, they should be joined by matting, hay-ropes, or some other soft material, so as not to injure or confine the bark. Before transplanting trees of a timber size, the main roots are frequently cut at the distance of five feet or six feet from the stem, a year previously to transplanting; in consequence of

which, they send out fibres which in the course of the summer become small roots, so that when transplanted, the tree, instead of drawing its principal nourishment from spongioles at the distance of twenty feet or perhaps thirty feet from the stem, is enabled to draw it from the distance of six or eight feet, and thus to continue growing, though not with the same degree of vigor as if it had not been transplanted. Some kinds of trees, when of a large size, such as the Sycamore, the Lime, the Horse-chesnut, and a few others, may be transplanted without this precaution; but in this case, the operation must be performed in autumn, as soon as the leaves have dropped, in order to give the roots time to form some fibres during the winter; and the greater the distance from the stem at which the roots are cut, the greater will be the success. Large trees with wide-spreading roots when transplanted, seldom require to be staked, because the roots form a broad base, which prevents the stem from being blown to one side. Where there is danger anticipated from high winds, the tree may be secured by three guy-ropes tied to the upper part of the stem, and made fast to stakes driven into the ground at such a distance from the tree as that the ropes may form an angle with the ground of 45° ; or the stronger roots may be kept in their position by stakes driven into the ground with their heads beneath the surface of the soil, the main roots being made fast to them by cords.

In all cases of transplanting deciduous trees, with the exception of the Beech and the Hornbeam, some pruning should be given to the top, so as to lessen the number of branches and leaves which are to be supplied by the root. The quantity of

branches that are required to be removed, will depend partly on the kind of tree, and partly on the intention of the planter, but mainly on the climate and soil. Beech trees, as already mentioned, are injured when transplanted, by having many branches removed, and often die in consequence. Sycamores, and all the Acer tribe, having numerous fibres near the main stem, require but little pruning of the head. The same may be said of the Yew and the Holly, the Lime and the Elm. When the object of the planter is to produce immediate effect by a bulky head, all the branches may be left on, whatever may be the kind of tree; but in that case the tree will produce only leaves for a number of years, or if it produce shoots they will not exceed a few lines in length. Ultimately, if the soil be poor and dry, the tree will probably perish; but if the soil should be good and moist, and the climate also moist, the tree will, in time, become vigorous, and produce shoots. Where the climate is moist, and the soil good, and also moist, any tree may be transplanted without pruning the branches; because the fibres it will produce in such a soil and climate, will be sufficient to supply the moisture transpired by the leaves. But where the climate is dry and the soil also dry, no large tree can be safely transplanted with all its branches; because the transpiration by the leaves will be much greater than the moisture which can possibly be absorbed by the roots. Hence, in the dry climate of the Continent, all trees with stems above an inch or two in diameter, have their branches entirely cut off, always excepting the Beech and Hornbeam the Yew, and all the Pine and Fir, and Cypres tribes. Even in this country, in Evelyn's time

this was the practice; and the late Sir Joseph Banks, when he planted groups of trees with stems five inches or six inches in diameter, on a portion of Hounslow Heath, which was allotted to his residence there, planted only stumps ten feet or twelve feet high, which stumps are now finely-headed trees, conspicuous from the road in passing Spring Grove. Much has of late been written on the subject of transplanting large trees, by Sir Henry Steuart and others; and the practice has been recommended of leaving on the whole of the head. Experience, however, has proved that this can only be done with advantage, under certain circumstances.

Planting in pots, when the plants are of the very smallest size, may be effected by a small dibber, as in planting in the common soil; but it is more frequently done on the principle of planting in pits; that is, the pot being properly drained by a few potsherds being placed over the hole in the bottom of the pot, and an inch or two of soil placed over them, according to the size of the pot, the young seedling or newly-struck cutting is held with one hand, and soil sprinkled over the roots by a trowel with the other. When the pot is filled, the soil is consolidated by lifting the pot with both hands a few inches high, and setting it down once or twice with a slight jar; afterwards supplying water so as to moisten the whole of the soil in the pot. The thumb, or a potting-stick, should previously be passed round the inner edge of the pot, so as to firm the soil round the rim; otherwise the water is liable to run down round the edge of the pot, without moistening the soil in the middle. Immediately after planting, the pot should be set in a position

where it can be shaded during sunshine ; but on no account should tender plants be shaded during cloudy weather, or covered with an opaque covering during night, unless for the purpose of protecting them from cold. Of course the after treatment of every plant in a pot must depend on its nature ; all that it is necessary at present to treat of, is the manner of planting.

Transplanting plants which have already been grown in pots, is either effected by removing the ball or mass of earth containing the roots entire, or by gently breaking the ball in pieces, and stretching the roots out on every side. When the ball is not broken, the operation is called shifting. Plants are often reared in pots, on account of their tender nature when young, or for the convenience of transporting them to a distance, though they are intended ultimately to be planted in the open ground. In almost all cases of this kind, the ball should be broken, and the pit having been prepared with the greatest care, as in common planting, the fibrous roots should be stretched out in it as far as they will go on every side. Hence, a plant which has been grown in a very small pot, when it is to be transplanted into the open garden, may often require a pit three feet or four feet in diameter. There is not, perhaps, an operation in the whole circle of gardening, that affords a higher gratification to the planter, than transplanting plants from pots when the pits and soil are properly prepared, and the roots carefully stretched out without being bruised or broken. In consequence of the extraordinary sources of nutriment which are thus afforded to the plant, and of the greatly increased power given to the roots, the shoots which it

makes the first year are extraordinary, and evince a degree of vigor, which none but a gardener of experience, could believe possible. On the other hand, when a plant in a pot is turned out into a pit, however well the soil may be prepared, if the roots are not stretched out, it may remain for many years without growing much faster than it previously did in the pot. This is often the case with the more rare species of the Pine and Fir tribe, and with Magnolias and other plants kept in pots by nurserymen; and it is further attended by this evil, that the plants are easily blown to one side by the wind. In the case of surface-rooted plants, such as Pines, if they have been some years in the pot, they never send out roots sufficient to keep them upright; and hence the Pinaster and stone Pine, which are almost always kept in pots in British nurseries, are generally found leaning to one side, in plantations in this country. It is necessary, however, to make the distinction between plants newly planted in pots, and those which have been in pots for two or three years; for the former may perhaps have few roots which have reached the sides of the pot, as in the case of China Roses struck and potted early in the season, and planted out the same summer, and which, of course, may be planted out without breaking the ball. The same observation will apply to all other plants in pots, that have not their fibrous roots somewhat woody; and also to all hair-rooted plants, such as Heaths, Rhododendrons, Azaleas, Arbutus, and in general to all the Ericaceæ, which having at no age large woody roots, may always be transplanted from pots with the balls entire.

It may here be observed, that large shrubs of

almost all the Ericaceæ may be transplanted at almost any age, with less danger than most other plants, as from the slender and fibrous nature of the great mass of their roots, they are less liable to injury than woody-rooted plants. All that is required is, that they should be taken up with a large ball of earth, and that when replanted, they should be abundantly supplied with water.

Hitherto nothing has been said especially applicable to evergreens, whether in the open ground or in pots. These being at every season of the year more or less in a growing state, it is always desirable to transplant them with balls; and it is only young plants of evergreens, such as seedling Hollies, Portugal Laurels, and young cuttings or layers of the common Laurel, Laurustinus, Sweet Bay, Phillyrea, Alaternus, Junipers, &c., which can be sent to any distance with a certainty of growing without balls. The common Holly, when it is above three or four feet in height, requires to be taken up with a ball, and that ball carefully preserved by being tied up in a mat—or, according to the Dutch practice, put into a basket of wickerwork. The same remark will apply to Arborvitæ, Junipers, Arbutus, Rhododendrons, Box, Phillyreas, and even the common Laurel.

The best season for transplanting all deciduous trees and shrubs, is the autumn; because the plant has time to produce some fibres, and accommodate itself to its new soil and situation during the winter, so as to be prepared to grow freely the following spring. Evergreens may also be transplanted in autumn, or at any time in open, moist weather, during autumn, winter, or early spring. In dry or frosty weather, it is always dangerous to remove

them; because the sap in an evergreen is more or less in motion at every season of the year, and the plant is never so completely dormant as in the case of deciduous trees. Formerly it was thought that the best season for removing evergreens, was in the latter part of summer, shortly after they had completed their year's growth; but this doctrine was only acted upon in the time of Miller and before, when there were comparatively few species of evergreens in British gardens, and it has been recently found by Mr. McNab, (see his *Treatise on Transplanting Evergreens.*) that evergreens may be transplanted with much greater safety in mild weather in autumn or winter, than at any other period of the year. Herbaceous plants may, in general, be transplanted at any season, when they are not in flower or coming into flower; but the safest time for perennials is in autumn, after they have ripened their seeds and are going into a dormant state. Biennial and annual plants are best transplanted when quite young, or after they have obtained their second or third pair of leaves; and seedlings in general may be treated in a similar manner. In all cases of planting, (excepting with Cacti and other succulents,) the plants should be watered as soon as they are fixed in their new situations; and when practicable, they should be shaded a few days from the heat of the sun.

GATHERING AND PRESERVATION OF SEEDS.

The gathering and preservation of seeds is an occupation peculiarly agreeable to persons fond of gardening; partly, no doubt, because it contains so much of future promise, and on the same principle

that sowing is universally considered a more exciting operation than reaping. The greater number of seeds of ornamental herbaceous plants are contained in long narrow pods, called siliques, or silicles, such as those of the cruciferous plants; or in leguminous pods, such as those of the Sweet Pea; or of capsules, such as those of *Campanula*; but a number of plants produce their seeds naked in tubes, such as the *Scrophularinæ*; or receptacles, such as the *Composita*; and some in fruits more or less fleshy, such as the *Fuchsia*. All seeds may be known to be ripe, or nearly so, by the firmness of their texture, and by their changing from a white or greenish color, to a color more or less brown. There are, indeed, some seeds which are whitish when ripe, such as the White Lupine, and of several of the sweet peas; and other seeds that are quite black, such as those of some *Ranunculuses*, but in general a brown color is characteristic of ripeness. Seeds should be gathered on a dry day, after the sun has had sufficient time to exhale all the moisture which dews or rains may have left on the seed-vessels. In general, the pods, or capsules, should be cut off with a small portion of the stalks attached, and the whole should be spread out, each kind by itself, on papers, in an airy room or shed, from which rain and the direct influence of the sun, are both excluded. When the seed-vessels are thoroughly dried, they may be put up in papers without separating the seeds from them; and kept in a dry place, rather airy than close, till wanted for sowing. Seeds preserved in the seed-vessel no doubt make comparatively clumsy packages, to seeds from which every description of husk or covering has been separated; but in this clumsy state they are

found to keep better than when cleaned. Nevertheless, when they are to be sown the following year, or sent any where in a letter, it is better to take them out of the covering, and render them as clean as possible, by passing them through sieves, with holes sufficiently large to admit the escape of dust, but not of the seeds. Such sieves, on a small scale, every lady may make for herself by turning up the edges of a piece of thin pasteboard cut in a circular form, and piercing the bottom with holes with a large pin or darning needle. When it is determined to separate the seeds from the seed-vessels, instead of putting up the whole together, the vessels after gathering may be dried in the sun; when many of the seeds will come out by the expansion of the seed-vessels in the heat, and the remainder can easily be rubbed out. This is the usual practice of nurserymen. For keeping seeds, a lady ought to have a small cabinet, which she might form herself of pasteboard, with as many drawers as there are letters in the alphabet; and as her seeds are put up in papers, she can tie the packets of each genus by themselves, and put them in the appropriate drawer. Where so much trouble can not be taken, a large brown paper bag, or a canvass bag, for each letter of the alphabet, may be substituted.

The period during which seeds will retain their vegetative powers differs in different families, genera, and even species. Seeds of the Ranunculaceæ and the cruciferæ, will, in general, retain their vitality for several years, in whatever manner they may be kept; provided the situation be not such as will cause them to germinate. On the other hand, seeds of the *Capsicum* will keep for several years if re-

tained in the berry, but will seldom grow the second year when removed from it. As a safe general guide, it may be adopted as a rule, that all seeds will keep three years, and grow, provided they are retained in the unopened seed-vessel; that most seeds, if maturely ripened, and kept in a dry place in close paper packets, will grow the second year; and that all seeds whatever, whether kept in the seed-vessel, or exposed in open drawers like those of the seedmen, will grow the first year after being gathered. Mignonette seed will keep seven years; but that of stocks and wall-flowers will not remain good more than two years, unless kept in the pod. Sweet peas and lupines will, with difficulty, keep two years, while the seeds of Prince's feather and of poppies will keep several years. Larkspur seed will seldom grow after the second or third year. Notwithstanding the length of time which some seeds will keep, it is generally advisable to sow them as soon after they are ripe as practicable, as fresh seeds always vegetate much sooner than old ones.

CHAPTER XIII.

THE WEATHER.

The Weather is an important item, and we will add a few general rules to assist our readers in judging of its changes ; premising, however, that our rules are not always infallible. The weather is proverbially fickle in all her predictions and changes, and we can only seize upon such general prognostics as experience has shown to be correct in ordinary cases.

Rule 1st.—If the sun rise red and fiery, you may expect wind and rain ; if cloudy, and the clouds soon decrease, certain fair weather ; if in the morning some parts of the sky appear *green* between the clouds, while the sky is *blue* above, stormy weather is not far off.

2nd.—CLOUDS small, strewed with dapple gray, with a *North wind*, bring fair weather for two or three days ; clouds that look like large rocks, portend large showers ; on the other hand, if large clouds decrease, it is a proof of fair weather in summer or harvest time ; if clouds rise with great white tops, and joined together with black on the lowest side, especially if two such clouds arise, make haste for shelter.

3d. If MIST rises in low grounds and soon vanishes, it is a token of fair weather ; and if it rises high, or to the tops of hills, you may expect rain in a day or two ; a general mist before the sun

rises, near the full of the moon, brings fair weather; if this happens in the new moon, it brings rain in the end; and on the contrary, if before the sun rises, in the old moon, rain at the new moon.

4th. **SUDDEN RAINS** do not last long; but when the air grows thick by degrees, and the sun and moon and stars, shine dimmer and dimmer, it is likely to rain for some hours. If it begins to rain an hour or two before sun-rising, it is likely to be fair before noon, but if the rain begins an hour or two after sun-rising, it is likely to rain all that day, except the rainbow be seen before it begins to rain.

5th. **SIGNS OF RAIN.** The air is inclined to rain when, at night, you hear the sound of bells, the noise of water, or of beasts of any kind, or any other noises, unassisted by the direction of the wind, more plainly than at other times. The sinking of rivers, more than usual, at some seasons, is a certain presage of much rain to follow, and the reverse after the fall of much rain, indicating dry weather. If the earth or other moist places emit any extraordinary smell, rain follows. *Dews* lying long in the morning, signify fair weather; small dews, and they soon vanishing, rain. If the *colors of the rainbow* tend more to red than any other color, wind follows; if green or blue, then rain.

6th. **THE WIND.** It has been observed in England, that in eight years together, there was as much north-west wind as there was north-east, and consequently as many wet years as there was dry: whether the same holds good in our country, has not been correctly ascertained, but with some care it could easily be proved.

When the wind blows from the north-east, and continues two or three days without rain, and hath

not some south the third day, it is likely to continue north-east for eight or nine days, all fair, and then to come south again; if it turns again out of the south to the north-east, with rain, and neither turns south nor rainy the third day, it is likely to continue north-east a considerable time. Fair weather for a week, with a southerly wind, is likely to produce a great drought, if there has been much rain out of the south before. The wind usually turns from north to south, without rain; but returns to the north with a strong wind and rain; the strongest winds are when it turns from south to north-west; a north-wester generally brings clear weather, and begins by blowing hard. Wind blowing from the sea, is observed to be always most cool in summer, and warm in winter.

When the wind changes with the sun, that is, from East to South, from South to West, it seldom goes back; if it does it is only for a short time; but if it moves in a contrary direction, that is from East to North, from North to West, it generally returns to the former point, at least before it has gone quite round the circle. When winds continue to vary for some hours, as it were to try in what point they were to settle, and afterwards begin to blow constant, they continue for some days. If the South wind begins to blow for two or three days, the North wind will blow suddenly after it; but if the North wind blows for the same number of days, the South will not rise till after the East has blown a while. Whatever wind begins to blow in the morning, it will continue longer than that which rises in the evening.

OTHER PROGNOSTICS. If the last eighteen days of *February* and the first ten days of *March*, be

rainy, then spring and summer quarters are likely to be so. If the latter end of October and beginning of November, be for the most part warm and rainy, then January and February are likely to be frosty and cold, except after a very dry summer. If October and November be frosty, then January and February are likely to be open and mild. Generally, a moist and cool summer portends a hard winter; a hot and dry summer and autumn, especially if the heat and drought extend far into September, portend an open beginning of winter, and cold towards the latter part of it and the beginning of spring. A warm and open winter portends a hot and dry summer, for the vapors disperse in the winter showers, whereas cold and frost keep them in and convey them to spring and summer.

Birds that change countries at certain seasons, show the temper of the weather according to the country whence they came; as in the winter, pigeons, wild ducks and geese, &c., if they come early, they come away from a hard winter, and when swallows come early, it is followed by a hot summer.

CHAPTER XIV.

BOTANICAL EXPLANATIONS.

From Flora's Interpreter.

FLOWERS.

There are seven elementary parts in a flower—or, properly speaking, flower and fruit.

1. Calyx. The outer or lower part of the flower, generally not colored.
2. Corol. The colored blossom of the flower, within or above the calyx.
3. Stamens. The mealy or glutinous knobs, generally on the ends of slender filaments.
4. Pistil. The central organ of a flower; the base of this becomes the pericarp or seed.
5. Pericarp. The covering of the seed, whether pod, shell, bag, or pulpy substance.
6. Seed. The essential part, containing the rudiments of a new plant.
7. Receptacle. The base which sustains the other six parts, being at the end of the stem.

Any accidental appendage is a nectary. The form and positions of these organs, and of no other part, are employed in distinguishing the Classes, Orders, and Genera.

Double flowers are formed by changing the stamens into petals. Botanists term these *vegetable monsters*.

INFLORESCENCE, OR MANNER OF FLOWERING.

1. *Whorl*. An assemblage of flowers surrounding the stem or its branches, constitute a whorl or ring: this is seen in the Mint and many of the labiate plants.

2. *Raceme*, or cluster, consists of numerous flowers each on its own stalk or pedicle, and all arranged on one common peduncle; as a bunch of Currants.

3. *Panicle*, bears the flowers in a kind of loose subdivided bunch or cluster, without any regular order; as in the Oat. A panicle contracted into a compact, somewhat ovate form, as in the Lilac, is called a *Thyrse*, or bunch; a bunch of Grapes is a good example.

4. *Spike*. This is an assemblage of flowers arising from the sides of a common stem: the flowers are sessile, or with very short peduncles; as the Wheat and the Mullein.

5. *Umbel*, several flower-stalks, of nearly equal length, spreading out from a common center, like the rays of an umbrella, bearing flowers on their summits; as Fennel and Carrot.

6. *Cyme* resembles an umbel in having its common stalks all spring from one center, but differs in having those stalks irregularly subdivided; as the Snow-ball and Elder.

7. *Corymb*, or false umbel—when the peduncles rise from different heights above the main stem; but the lower ones being longer, they form nearly a level, or convex top; as, the Yarrow.

8. *Fascicle*, flowers on little stalks variously inserted and subdivided, collected into a close bundle, level at the top; as the Sweet William.

9. *Head*, or tuft, has sessile flowers heaped together in a globular form; as in the Clover.

10. *Ament*, or catkin, is an assemblage of flowers composed of scales and stamens, arranged along a common thread-like receptacle; as in the Chesnut and Willow.

11. *Spadix* is an assemblage of flowers, growing upon a common receptacle, and surrounded by a spatha, or sheath; as in the Egyptian Lily.

CLASSES AND ORDERS.

THE explanations of these must necessarily be very brief; my aim being rather to stimulate curiosity respecting the subject of Floral Botany, than to impart instruction in the science. A few general facts, and a few of the first terms, are all that can be given.

Flowers in the Linnæan system are divided into *twenty-four Classes*. These *Classes* are divided into *Orders*. *Orders* into *Genera*; *Genera* into *Species*; *Species* are frequently changed into *Varieties*.

The first ten classes are distinguished by the number of their stamens;—thus,

1. *Monandria*, 1 stamen; Flowering Reed is the only one of this class given.
2. *Diandria*, 2 stamens; Lilac, Sage, Jasmine, etc.
3. *Triandria*, 3 stamens; Crocus, Iris, Oat, etc.
4. *Tetandria*, 4 stamens; Witch-Hazel, Holly, etc.
5. *Pentandria*, 5 stamens; Violet, Flax, Woodbine, etc.
6. *Hexandria*, 6 stamens; Lily, Sorrel, Aloe, etc.
7. *Heptandria*, 7 stamens; Horse-chesnut, etc. None of this class given.
8. *Octandria*, 8 stamens; Nasturion, etc.
9. *Eneandria*, 9 stamens; Laurel, etc.

10. *Decandria*, 10 stamens; Rue, Pink, Hydrangea.
11. *Dodecandria*, 12 to 19 stamens; Mignonette, etc.
12. *Icosandria*, 20 or more, standing on the calyx. Rose, etc.
13. *Polyandria*, always 20 or more, on the receptacle; Butter-cup, Larkspur, Peony, etc.
14. *Didynamia*, 4 stamens, 2 of them uniformly the longest; Fox-glove, Balm, Thyme, etc.
15. *Tetradynamia*, 6 stamens, 4 of them uniformly the longest; Gilly-Flower, Honesty, Queen's Rocket, etc.
16. *Monodelphia*, stamens united by their filaments in one set, anthers being separated; Geraniums, Hibiscus, etc.
17. *Diadelphia*, stamens united by their filaments in two sets; flowers *papilionaceous*, or butterfly-shaped.
18. *Polydelphia*, stamens in two sets, united at the bottom by the filaments; Orange, St. John's Wort, etc.
19. *Syngensia*, stamens 5, united by their anthers in one set, flowers compound; China-aster, Daisy, etc.
20. *Gynandria*, stamens stand on the germ, style or stigma, separate from the base of the calyx or corol; Orchis, etc.
21. *Monœcia*, stamens and pistils in separate flowers on the same plant; Amaranth, Pine, Nettle, etc.
22. *Diœcia*, stamens and pistils on separate plants; Yew, etc.
23. *Polygamia*, stamens variously situated; sometimes on flowers with pistils, sometimes stamens only; Mimosa, etc.
24. *Cryptogamia*, the flowers of this class are invisible to the naked eye; Lichen, Moss, etc.

ORDERS.

The first *thirteen orders* are distinguished entirely by the number of *pistils*, The names of these orders are,

Monogynia—1 pistil.	Heptagynia—7.
Digynia—2.	Octagynia—8.
Trigynia—3.	Enneagynia—9.
Tetradynia—4.	Decagynia—10.
Pentagynia—5.	Dodecagynia—12.
Hexagynia—6.	Polyginia, many pistils.

The 14th Class has { 1 Gymnospermia—seed naked.
2 orders— { 2 Angiospermia—seed in capsules.

15th Class—2 orders— { 1 Siliculosopod—pod short.
 { 2 Siliquosa—pod long.

16, 17, 18th Classes—In these the orders are determined from the *number* of stamens.

19. Class 5, orders 1. *Equalis*.—2. *Superflua*.—3. *Frustanea*.
4. *Necessaria*.—5. *Segergata*.

20, 21st Classes.—Orders have the same *names* as the preceding *classes*.

22d Class has 8 orders; the first seven named from the number of stamens—the 8th, *Monodelphia*, because the stamens are united in one set.

23d Class has 3 orders. *Monuccia*—stamens and pistils in separate flowers on the same plants. *Diacia*—stamens, etc. as different plants. *Triaccia*—on three flowers.

24th Class is divided into 6 *families Felices*, (ferns;) 2. *Musci*, (mosses;) 3. *Heptaica*, (liverworts;) 4. *Algæ*, (sea-weeds;) 5. *Lichenes*, (lichens;) 6. *Fungi*, (mushrooms.)

POISONOUS PLANTS.

1. Plants with five stamens and one pistil, with a dull-colored lurid corol, and of a nauseous sickly smell, always poisonous. As, tobacco, thorn-apple, henbane, nightshade.

2. *Umbelliferous plants* of the aquatic kind, and a nauseous scent, are always poisonous. As, water-hemlock, cow-parsley. But if the smell is pleasant, and they grow on dry land, they are not poisonous. As, fennel, dill, coriander.

3. Plants with *labiate* corols, and seeds in capsules, frequently poisonous. As, snap dragon, fox-glove.

4. Plants from which issue a *milky juice* on being broken, are poisonous, unless they bear compound flowers. As, milk-weed, dogbane.

5. Plants having any appendage to the calyx or corol, and eight or more stamens, generally poisonous. As, columbine, nasturtion.

Plants with few stamens, not poisonous, except the number be five; but if the number be twelve or more, and the smell nauseous, heavy and sickly, the plants are generally poisonous.

 TO PRESERVE FLOWERS AND PLANTS.

Place the specimens in a close, dark room; when the plants are nearly dry, press them, in small quantities enveloped in paper, till the oil appears on the surface, which you will know by its discoloring the paper; then do them up in clean paper bags, and they will retain their fragrance, color, and medicinal properties, for years.

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