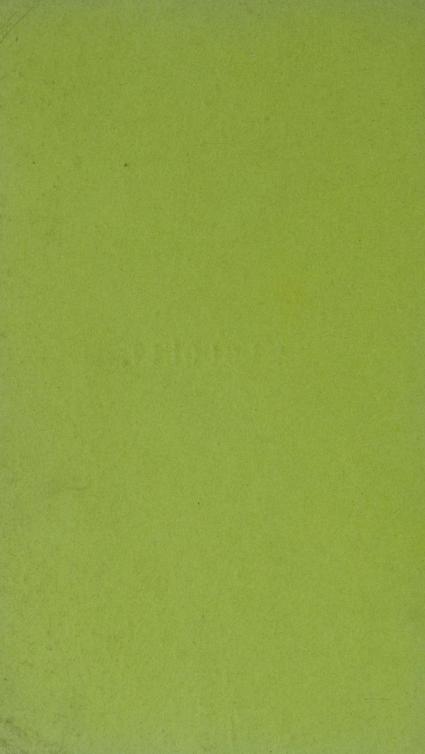
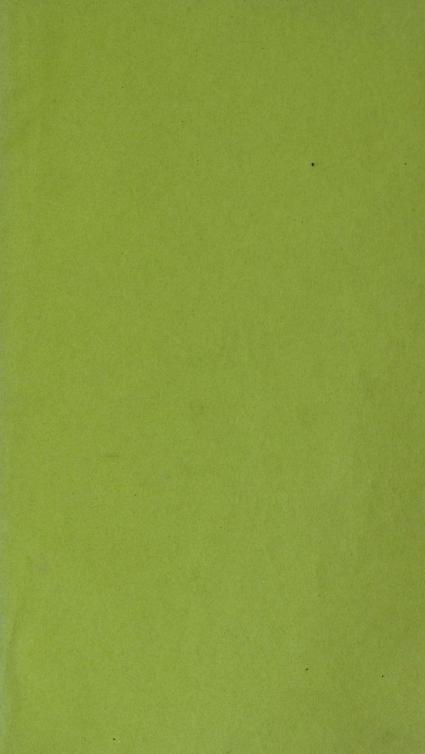
A BOUQUET,









A BOUQUET

FROM

FLORA'S GARDEN,

BOTANICALLY

DESCRIBED FOR LOVERS OF FLOWERS

AMONG

LITTLE FOLKS.

BY EMILY ELIZABETH WILLEMENT.

DEDICATED BY KIND PERMISSION TO THE

MISSES WHITE,

OF BERECHURCH HALL, COLCHESTER, ESSEX.

Norwich:

BACON, KINNEBROOK, AND BACON, MERCURY OFFICE.
1841.

NORWICH:

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TO THE

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IS RESPECTFULLY DEDICATED

BY EMILY ELIZABETH WILLEMENT.

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In endeavouring to improve the acquaintance of my young readers with a few of their garden favorites, it is necessary to observe that Nature is divided into three kingdoms—the animal, the vegetable, and the mineral, of which the vegetable is one of the richest and most beautiful. To become a botanist, it is necessary to understand not merely the names of flowers, but their structure, properties, and the class to which they belong. To be able to tell the name of every flower, and how it is to be cultivated, is to be a florist. A perfect plant is composed of a root, a stem or stalk, and its branches of leaves, flowers, and

fruit; for in botany by fruit (in herbs as well as in trees) is understood the whole 1 fabric of the seed. By the formation of the flower, fruit, and leaves, is determined the class to which the plant belongs. They are all arranged into different classes, which are again divided into orders and species. At the end of this little book, you will find a table with the name of each class and the number of stamens belonging to it. I would advise my little readers to commit it to memory, so that when they are gathering some of the beautiful children of Flora, they may be able to find out to which of the classes they belong. The blossom or flower of a plant consists of that beautifully colored part which attracts the attention of all. It is composed of one or more petals or blossom leaves. If it be in

^{1.} Fabric, the substance of which a thing is composed.

one piece, as the blossom of the polyanthus or auricula, it is said to be a blossom of one petal; but if it has several parts, it is called a blossom of one, two, three, or many parts or petals. The stamens are slender threadlike substances, generally placed within the blossom, and surrounding the pistil or pistils. A stamen is formed of two parts, the filament or thread, and the top or anther, which is a little box containing a fine yellow dust. The pistils are to be found in the 2 centre of the flower; they are composed of three parts, the bottom, called the germen or seed bud, the middle, called the style, which is often wanting, and the top, called the summit or stigma. The use of the blossom is for the production of seed; for this purpose the germen, the stigma or summit, and the anthers are all

that are really required. The fine dust or pollen contained in the anthers is thrown upon the summit of the pistil. The summit is moist, which acting upon the grains of pollen, causes them to burst and throw out a very 3 subtile vapour; this vapour passing through the 4minute 5 tubes of the pistil, arrives at the 6 embryo seeds in the germen. and fertilizes them. The calyx and petals serve as a cover to protect these valuable parts of the plant. The part called the germen in the newly opened flower, when it enlarges and becomes ripe, is called the seed vessel. The part or base to which the whole blossom is fixed, is called the receptacle.

^{3.} Subtile, thin, fine, delicate.

^{4.} Minute, small, slender.

^{5.} Tubes, little pipes or openings.

^{6.} Embryo, the unfinished seed.

^{7.} Fertilize, to render fruitful.





The Snowdrop.

burstes opens sidewoved and becomes a dry

This pretty little flower, which blooms so early in the year, at a time when the more tender plants do not venture to expose their beauties to the inclemency of the winter sky, seldom fails to excite pleasing anticipations in the bosoms of those little boys and girls who are looking forward to the bright days of spring; when they may wander in the green meadows, covered with their rich carpet of daisies and butter-cups. As it may be possible that they do not all understand the peculiar formation of their little favourite, their friend Emily will be happy if she can afford them a little instruction, as well as amusement, in describing it to them. The Snow-DROP belongs to the sixth class* of plants,

^{*} See the table of classes at the end of the book.

called Hexandria. You have I dare say noticed, that when it first shoots from the ground, the blossom appears enclosed in a sort of green sheath; this, as the flower bursts, opens sideways, and becomes a dry skin. The small green top (from which proceeds three 2 oblong, 3 concave, white leaves, called petals) contains the seed, and when the petals have withered, ripens and bursts. Beneath these long white petals are three others, in the form of a cup, beautifully marked on the inside with a bright green. From the centre proceeds a longish slender thread; this is the pistil: it is surrounded by six other threads, much shorter and thicker, of a yellow colour; these are the stamens. Its root is round, something like a marble, with a few whitish threads at the bottom. This species of root is called a bulb. When the plant has done flowering the leaves die, but the bulb remains in the ground till the next year, when it again shoots forth, amidst frost and snow,

Hexandria, having six stamens.
 Oblong, longer than broad.
 Concave, hollow.

to tell us Spring is coming. Its leaves, you will see, are of a pale green, long and narrow.

THE SNOWDROP.

The Snowdrop is a lowly flower,
It bends beneath the blast;
It does not shun the wintry hour,
Or wait till storms are past.

But up it lifts its modest head
From out its case of green,
When not a child from Flora's bed
Will venture to be seen.

do wer s to berwinds as shows no morseld

The Hepatica.

This brilliant flower is one of the next to enliven the garden with its lovely blue or rose coloured blossoms, making their appearance before the green leaves, which do not unfold till the blossoms have begun to fade. The Hepatica belongs to the class ¹Polyandria, having many stamens springing from the bottom of the corolla. If you observe, the blossom or corolla is composed of a row of small petals of a beautiful blue inside, and a pale blueish white underneath. Now look at the back of the corolla—those three little green leaves are called the calyx. The leaves are entire, that is not divided, into separate pieces, with three points; this kind of leaf is

^{1.} Polyandria, having many stamens.



called three ² lobed entire. The rose coloured Hepatica has a number of small petals placed in rows, the petals of the last being of a much larger size; the stamens are not seen, because it is a double flower. There are however single pink Hepaticas, of the same form as the blue. These flowers bloom about the latter end of February and the month of March.

^{2.} Lobed, divided nearly half-way down, rounded at the edges, and the lobes standing distant from each other.

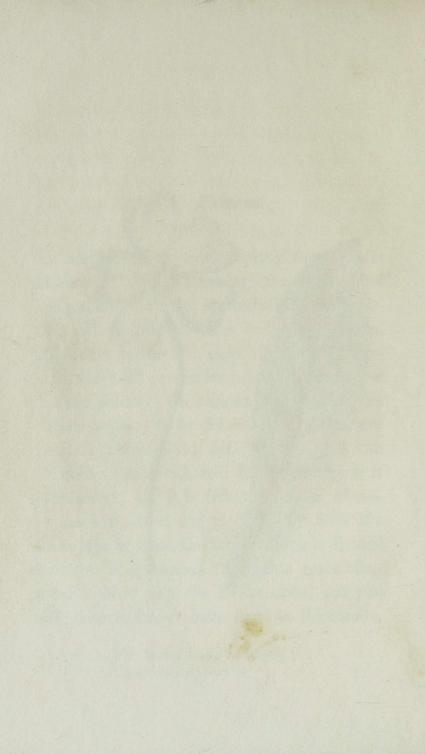
The Primrose

Is another of the early Spring flowers. It blooms in April, adorning the woods and hedges, and even the roadsides with its beautiful pale yellow blossoms and green leaves. It belongs to the fifth class 1 Pentandria, having a calyx of one entire piece, ending in five distinct points. On a slight examination, the corolla appears to be formed of five separate Those of my little readers who can procure a PRIMROSE, will find on stripping it of its calyx, that it is (what is termed Monopetalous or all of one piece) in the form of a little pipe or tube, the top of which is divided into five heart-shaped 2 segments resembling petals. Now tear the flower open, and you will discover five stamens fixed on the corolla.

^{1.} Pentandria, having five stamens.

^{2.} Segment, a piece cut off.





Inside the calyx is a tiny 3 protuberance, this is the capsule or seed vessel, on the top of this is placed the pistil. The Primrose is distinguished from the cowslip, oxlip, polyanthus, &c. (which are varieties of this flower), by its bearing a single flower on a slight naked stalk, the stems or stalks of the others being strong, having several blossoms on one. The oxlip is sometimes a foot high, the cowslip is lower and weaker, and the blossoms of both are smaller than those of the primrose; the cowslip is of a pale yellow and sweet smelling, the oxlip and polyanthus have a great variety of colours. The root leaf is nearly the same in all the species, long, narrow at bottom and widening at top, of a bright green, the surface wrinkled, and the edges 4 indented.

^{3.} Protuberance, something swelling above the rest.

^{4.} Indented, cut at the edges in scollops.

THE PRIMROSE.

Primrose pale, we will hail your birth,

For you tell of the coming Spring;

When your flowers upon their mother earth

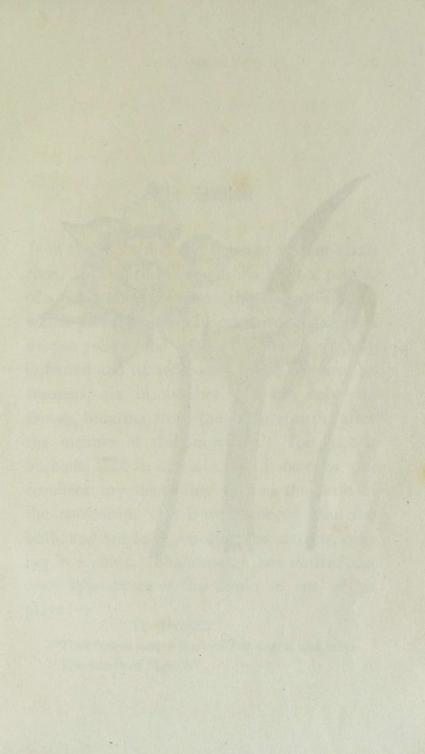
A ⁵ gossamer carpet fling.

You fear not the breath of the storm
When the cold wind sweepeth by;
⁶ Enshrouding your delicate form,
'Mid your leaves of an emerald dye.

We will go to the woodland glade
When the linnet has plum'd her wing,
And pluck your sweet flowers 'ere they fade,
For they tell of the coming spring.

^{5.} Gossamer, the down of plants.

^{6.} Enshrouding, covering over.





The Dastodil

Is of the lily tribe, and belongs to the sixth class, Hexandria. The corolla has six petals, of a pale yellow colour at the stalk end, from which proceeds a cup in one piece, of a much deeper yellow, the edge of which is slightly indented and turned back; inside this are the stamens, six in number. It has only one flower, bursting from the same sheath, after the manner of the snowdrop. The root is bulbous, that is, like a bulb. I dare say you recollect my describing to you the bulb of the snowdrop. Its leaves proceed from the bulb, and are long, smooth, and narrow, ending in a point. Shakespeare has noticed the early appearance of this flower in one of his plays:-

"The Daffodil

[&]quot;That comes before the swallow dares, and takes

[&]quot;The winds of March."

He has also very fancifully described them as labsorbing the dew,

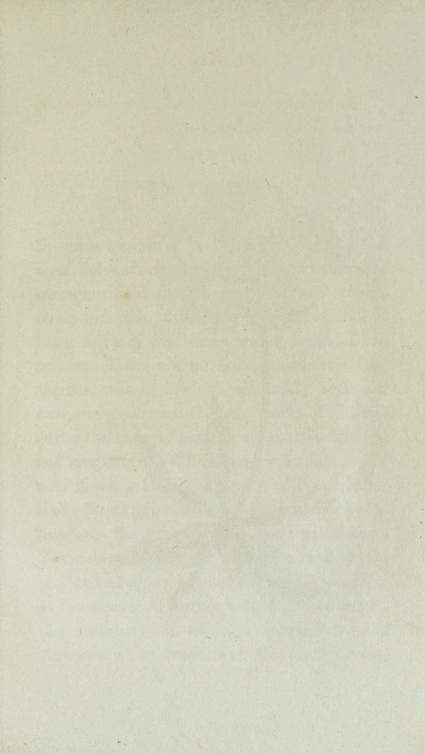
"And Daffodillies fill their cups with tears."

The double Daffodils are generally most admired by those who do not understand botany. Double flowers are produced by accident or culture; they are monsters. It is to the single flowers we look for their botanical characters. Double flowers produce no seed; they are imperfect. Without single flowers therefore the species would be ²extinct. There is also a greater elegance in a single flower.

This plant spreads at the root much oftener than by seed.

^{1.} Absorbing, swallowing up. I to about off

^{2.} Extinct, destroyed.





The Ranunculus

Is quite a tribe of itself, and belongs to the class Polyandria, which means many stamens, springing from the receptacle or seed vessel, along with the pistil, like the Hepatica. It has a calyx of five leaves and a corolla of five petals. There are no fewer than forty-four species, many of which are wild; some are extremely common in many parts of Europe under the name of butter-cups, butter-flowers, and king-cups. When you pick these pretty wild flowers, I dare say you will remember that RANUNCULUS is their botanical distinction, the others being only nicknames. These last, which are generally confounded and looked upon as one, clothe our meadows at the return of Spring with a golden carpet, the monotony of which is relieved by the innocent white corollas of the pretty daisy,

that bares its bosom to catch the bright beams of the morning sun. The bulbous (you recollect what a bulb is) has the calyx bent back to the flower-stalk. Examine that of the butter-cup, I think you will say the little green leaves of the calyx are all bent down from the corolla. The calyx of the creeping Ranunculus is open and spreading. Have you not in your walks through the fields observed a little yellow flower, similar to the strawberry blossom, creeping amongst the grass or on a green bank, with five fingered green leaves veined down the middle, the edges indented or toothed? This is another of them. The meadow is not the only place which is filled with them; the woods, the fields, and the waters have their share of them. Another species, which I have no doubt some of you have found in the hedges and fields very early in the Spring, of a star-like form, is very different from the rest. Its calyx consists of three leaves only; its corolla has more petals than five; its stamens are many, fixed on the receptacle,

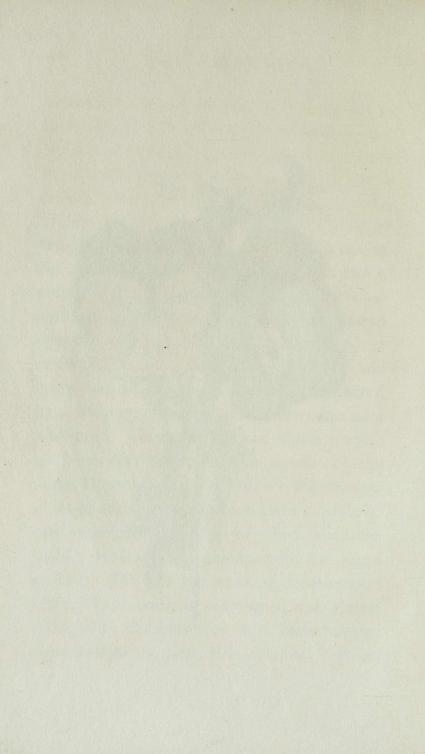
like the others of this class. Its leaves are langular and heart-shaped, one flower on a stalk, and tuberous or knobby roots. There is another kind called crowfoot Ranunculus, much larger, growing in watery damp places and ditches, flowering about May or June, the blossom of which is something like the butter-cup, only much larger; the root leaves are heart-shaped and the stem tall. The Persian Ranunculus, the great rival of the anemone in the flower garden, for the beauty and variety of its double corollas, is so changed by culture, that it is by the leaves alone we can distinguish it.

^{1.} Angular, having angles or corners.

The Peartsease

OR PANSY, is a species of violet, and is one of the nineteenth class, Syngenesia. It has a corolla of five unequal petals; the upper ones are broad, the two side petals are placed opposite one another, the bottom petal is entire. It has five small stamens united and lying close to the pistil, which is terminated by a little round green knob, the size of a pin's head. You have noticed the little yellow cone-like figure in the middle of the flower; open it and you will see the stamens quite plain, all standing round the capsule or seed vessel, from the top of which rises the pistil. Its leaves are oblong, with the edges gashed. The wild HEARTSEASE, which grows amongst the corn, is very small and almost white, with the exception of a little purple; a contrast to the large rich coloured corollas





of the garden Heartsease, which cultivation has rendered so beautiful. The varieties of shade and colour, from pure white or yellow to the darkest purple, the glossy softness of which surpasses the richest velvet, are almost innumerable, and I would advise my young readers to stroll into some garden and examine them for themselves.

THE HEARTSEASE.

This is a flower we all must know, Supposed by some to calm the woe Of troubled breasts, and to impart A soothing balsam to the heart.

The miser, brooding o'er his store Of golden ill, still sighs for more; A thief in every form he sees; Alas! his wealth is not heart's ease.

The sick man turning on his bed, Mourning past joys and pleasures fled; In vain his friends try him to please, And why? because he wants heart's ease.

It dwells but with a mind content,
Whose eye on wisdom's page is bent,
Who loves the Lord of earth and seas—
With him alone can dwell heart's ease.

The Lily of the Valley:

What a beautiful flower! How elegant and unassuming its drooping white bells, almost hidden from the eye by its broad green leaves. Its scent how fragrant, how delicious! I am sure you will say, pray tell us the history of this beautiful little flower. Well then it is one of the sixth class, Hexandria, like the snowdrop and daffodil. The corolla is monopetalous, that is one entire petal, in the shape of a bell, the top of which has six points, which bend back a little. Look at the back of the corolla, it has no calyx. Its stem is smooth, and of a pale green. The blossoms have each a short drooping stalk, uniting them to the stem, and are placed at a little distance from each other. The seed vessel, which is rarely seen, is not a capsule, but a berry divided into three cells, each of which



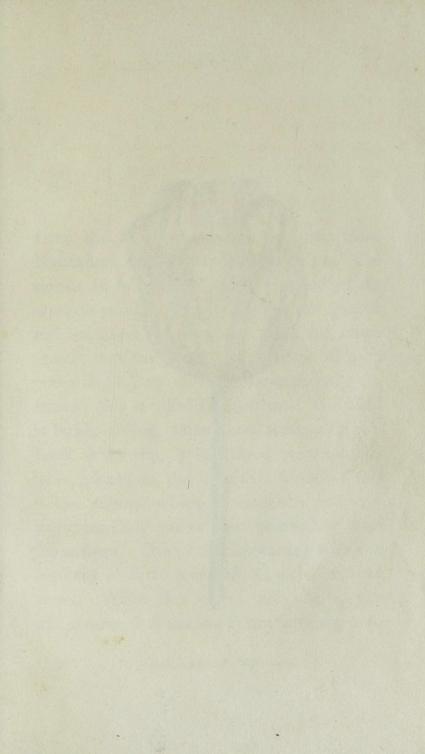
contains a seed. The plant seldom produces this, because the roots spread under ground and shoot up in different places. If the plant is confined in a pot, not being able to spread at the root, it will produce the berry, which is red, and before it ripens becomes spotted. The leaves of the LILY are very broad, two only to each plant, and usually united at bottom. The blossom comes up separately close to the leaves, which form a canopy to protect its delicate flowers from the wind. The stamens are six in number, with one pistil. The Lily of the Valley grows wild in France, but in England it is generally an inhabitant of the garden, in some shady border. It does, however, grow wild in some places.

TO THE LILY OF THE VALLEY.

Deep in some shady glen retired, Wrapped 'mid broad leaves of green, Or by a purling rivulet Thy ivory bell is seen. Or 'neath a tall majestic oak, Fanned by its waving leaves, Thy blossoms fling their sweetness round With every passing breeze.

The plaintive nightingale, To celebrate thy reign, Brings to the forest shade Her most melodious strain.

To her a type thou art
Of returning joy and love;
And a solace to the breast
Of the mourning turtle dove.





The Tulíp,

LIKE the lily, belongs to the sixth class, Hexandria, and is also without a calyx. The corolla is bell-shaped, but composed of six separate petals. Take one from the garden and examine the stamens; they are much shorter than the petals. On the top of each you will find an oblong, four-cornered substance; this is called the Anther. The pistil is large, oblong, taper, and three-cornered. Look at its top, it has three points, called lobes, placed in the form of a triangle; this is the stigma, which receives the pollen, a strong smelling yellow dust proceeding from the anthers. The pistil afterwards swells and becomes a three-cornered capsule or seed vessel. When this ripens and bursts, you will observe that the inside has three separate

^{1.} Triangle, a figure of three angles.

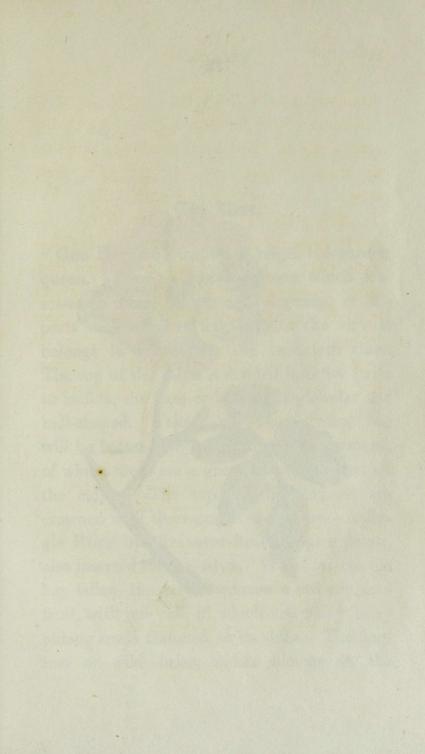
divisions or cells filled with seeds, lying in rows one above another. The stem of the corolla is tall, smooth, and strong, shooting up from between two or three pale green leaves. The root is a perfect bulb. The Tulip is generally reckoned one of the most gaudy children of Flora's kingdom. Its blossoms make a gay and showy appearance, dazzling the eye with the brightness and variety of their colours, but shedding no fragrance to ²captivate the sense. I am sure you all prefer the delicious perfume of the chaste lily of the valley to the scentless charms of the Tulip.

THE TULIP.

The Tulip's gay colours may charm the eye With its petals of amber and scarlet dye; Yet in it is found no rich perfume, Such as you meet in the lily's bloom. But proud and vain its charms displays, Unblushing to the public gaze; Despising humbler flowers that throw

Their fragrance far from whence they blow.

^{2.} Captivate, to charm, to delight, to please.





The Rose,

"OLD England's emblem," reigns the garden queen. There is no other flower which possesses so much beauty and elegance, or imparts such a balmy fragrance to the air; it belongs to Icosandria, the twentieth class. The top of the calyx is divided into five parts or leafets, the base or bottom is globular and bell-shaped. Take a sweet-briar rose, you will be better able to examine the stamens, of which there are a great many, inserted on the calyx. The tops of the stamens are crowned with three-cornered anthers. A single Rose has five oval heart-shaped petals, also inserted on the calyx. When the corolla has fallen, the calyx becomes a red coloured fruit, with one cell, in which are many hairy oblong seeds fastened to its sides. The dogrose or wild briar, which blooms in the

hedges, is one of our native Roses, of which there are but few; the greater number of our garden Roses having been brought from foreign countries. Cultivation has in this flower, as well as in many others, produced numberless varieties. The different species are determined by their fruit; that of the sweet-scented briar rose is round and hairy, that of the dog-rose is egg shaped and smooth. You have all of you observed that the leaves are toothed, and in pairs on a slender stalk. That beautiful inhabitant of the garden, the moss rose, is so called from its calyx being enveloped in a moss-like substance.

THE MOSS ROSE.

A beauteous rose, the garden's pride,In the soft breezes waved and sighed.Around her pressed each floweret bright,Basking beneath the sunbeams' light;

Save a proud tulip—with a frown
She said, "I claim the garden crown,
"The flowers my beauty all admire,
"Not one can boast such rich attire.

- "My blossoms like a diadem,
 - "Richly o'er set with Eastern gem;
- "Then I'm so upright, thin, and tall, "I rise a queen above you all.
- "I'm favourite of the flowers I know, Chosen by all, both high and low;
- "The crown upon my brow they'll place—
 "Elect me queen o'er all the race!"
- "For shame, proud flower," with rage they cried, "Go hence, with all thy gaudy pride
- "And scentless bloom—the Rose is queen,
 "In fragrant charms arrayed—retire and dwell unseen."

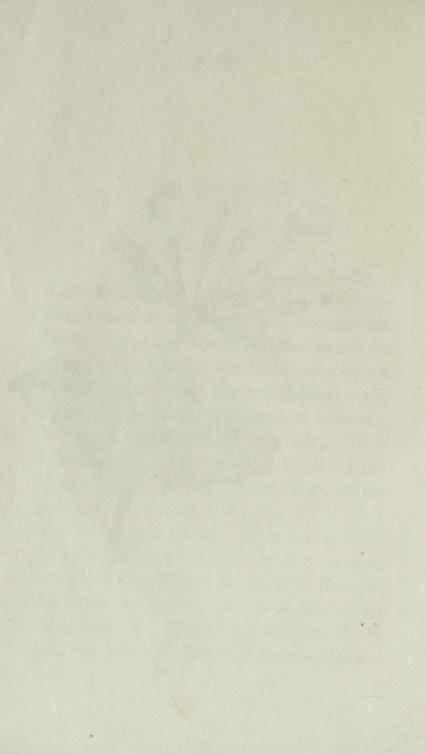
The flowers arose, in haste they wove
With dark green moss a crown of love;
And placed it on the sweetest flower,
That ever graced a garden bower.

The beauteous Rose, in blushes drest,
Waved graceful in her mossy vest;
And throned amid her leaves of green,
Has ever reigned the garden's queen.

The Honeysuckle.

THIS flexible and delicate shrub, which attaches itself upon the trees or amongst the bushes, frequently twining its branches as if for support around the knotted trunk of a majestic oak, and adorning the woods, hedges, and gardens with its light and graceful blossoms, belongs to the fifth class, Pentandria. It is indeed a lovely plant, cradling itself on the objects nearest it, as an infant clings to the bosom of its mother, while the air is filled with its delicious odours. What is so delightful as to walk out in a calm summer evening and pluck a handful of its beautiful flowers? I am sure you are all anxious to hear something about it. Well then gather one if you can, and you will find that the corollas are





composed of one petal, of a long tube-like form, cut at top into five points, which bend back. The stamens are five in number, shaped something like an awl; the pistil is long and The corollas grow in whirls, or slender. heads of many together. The seed vessels are roundish, and situated beneath the corollas; if you pull one of them off you will see it. They afterwards become softish red berries, each containing two cells, with a roundish seed. The corollas are yellow inside, and the outsides marked with a pale red. Honey-SUCKLE is sometimes called woodbine. Shakespeare speaks of it in his "Midsummer Night's Dream" as follows:-

"Quite over 1 canopied with 2 luscious woodbine"—
And again a little further, in the same play,
"So doth the woodbine, the sweet Honeysuckle,
Gently entwist."—

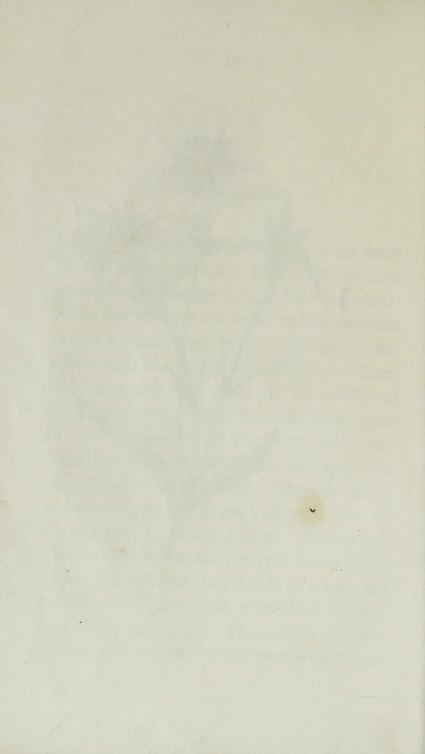
Canopied, covered, sheltered; from canopy, a covering spread over the head.

^{2.} Luscious, sweet, pleasing.

The Carnation

May be placed at the head of one of the finest families of the garden. The single red pink in its primitive simplicity and charming odour, the double corollas and never ending varieties of colour and form, which cultivation has introduced; the pretty delicate sweet william and the native wild pink, are all species of the Carnation. They most of them agree in the construction of the calyx, pistil, stamens, and leaves, by which you determine the class to which they belong. Here, however, as well as in other flowers, you must seek for a single one, to examine them. Take a single clove, or one of the pretty common single pinks, you will find the calyx is of a long and tube-like form, composed of one leaf, the bottom of which is scaly. The corolla has five petals; pull one off. That part which fixes





the petal to the calyx is long and narrow, something like a piece of thread, and reaches to the bottom. The stamens are ten in number. The upper part of the petal is open and spreading. The seed vessel is 1 oval, with one cell, opening at the top in four points, filled with angular seeds. Cloves and pinks have the edges of the petals deeply cut or toothed, those of the Carnation are only slightly notched. Many species of pink grow wild in some parts of England, on walls or dry soils. There is a very pretty sort growing on the Chedder Hills, in Somersetshire. Its flowers are of a pale red, with a circle of deeper coloured dots in the centre. Our common pinks are to be found in almost every cottage garden, 2 diffusing their fragrance to the summer breeze, and their honey to the lips of the longing bee which hovers around them. The leaves of all are narrow, growing at the root end; though some sorts, as the Carnation, clove, &c. are much larger and longer

^{1.} Oval, that which has the shape of an egg.

^{2.} Diffusing, shedding abroad, spreading around.

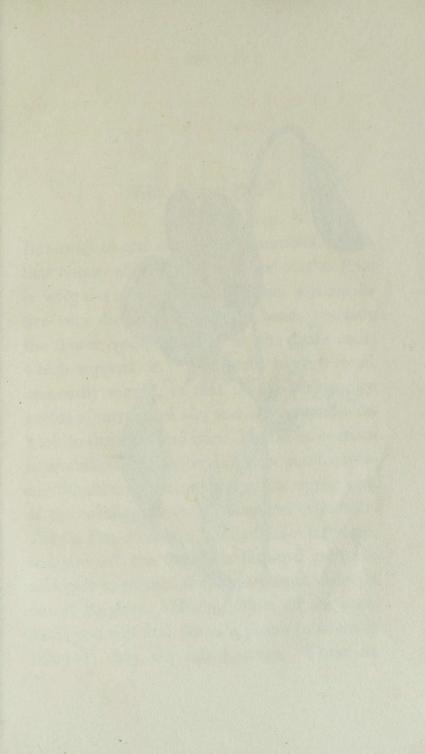
than those of the common garden and wild pinks. They are of a pale whitish green.

TO THE CARNATION.

Beautiful flower! 'tis thy spicy breath
That charms and refreshes the sense;
And sheds o'er the mountain, the plain, and the vale,
The odours thy blossoms dispense.

The rose with its cool fragrant scent, To cheer fainting mortals is given; But thine, pure and sweet, seems to me Nature's tribute of ³ incense to heaven.

^{3.} Incense, perfume.

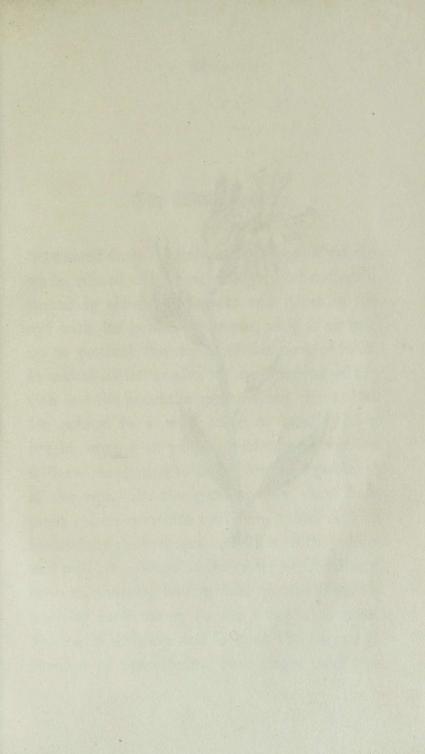




The Sweet Pea

Belongs to one of the most curious orders that botany affords. The flower of the PEA is irregular; the calyx is entire, ending in five very distinct pieces. It bends towards the lower part, as well as the little stalk which supports it. This stalk is very small and easily moved, so that the flower readily avoids a current of air, and always turns its back to the wind and rain. Its corolla consists of several pieces, the first is a large petal, covering the others, and occupying the upper part of the corolla; this is the standard or banner. Take a Pea blossom; pull off the standard, and you will see that it is fastened into the side pieces, so that the wind cannot drive it out of its place. Having taken off the standard, you will find the side pieces to which it adhered; they are called wings. These are

still more firmly fixed into the remaining parts, so that you will have a little difficulty in separating them. They are no less useful in protecting the sides of the flower than the standard in covering it. The last piece, called the keel or boat, covers and defends the centre, wrapping it up, especially underneath, as carefully as the other petals envelope the upper parts and the sides. When you have carefully examined this petal, draw it gently down (taking care not to tear away what it contains), and you will discover the young fruit surrounded by ten distinct threads, each terminated by a yellow anther. The Pea belongs to Decandria, the tenth class. When the blossom falls, the young fruit swells into a large pod, filled with round seeds. The sweet scented garden Pea has a dark purple banner, the keel and wings of a lightish blue, but there are different varieties. It is a twining plant, throwing out tendrils like the vine.





The Wallflower:

So named from its delighting to grow on old walls, ruined churches, abbeys, and cottages, spreading abroad its sweets and pleasing the eye with its golden blossoms, as if it sprung up to conceal the decay of the work of man. It makes its home also in the gardens of the rich and the poor, the peasant and the noble. Its colour in a wild state is usually of a bright orange or yellow, sometimes marked with red, according to the richness or poorness of the soil. In the garden they vary from plain yellow or white to a deep blood red, or beautifully dashed and speckled with yellow and red. It belongs to the order of Cruciform flowers, that is, having four petals standing wide of each other, in the form of a cross. Take a Wallflower and look at the calyx; it consists of four leaves, two larger and two

smaller. On this you will find a corolla of four petals; each petal is fastened to the bottom of the calyx by a narrow pale part called the claw, the upper part spreads out over the top of the calyx, and is large, flat, and coloured. If you examine the corolla carefully, you will find that each petal, instead of corresponding exactly with each leaf of the calyx, is placed between two, so as to answer to the opening which separates them. The Wallflower belongs to the fifteenth class, Tetradynamia; it has six stamens, situated in pairs, two of which are much shorter than the rest, and placed opposite each other. The seed vessel is a kind of flat pod, composed of two 1 valves, filled with flat seeds. The leaves are 2 acute and smooth, lance shaped and entire; the stems are shrubby and the branches ³angular.

^{1.} Valve, anything opening over the mouth of a vessel.

^{2.} Acute, sharp, pointed.

^{3.} Angular, three-sided.





The Convolbulus.

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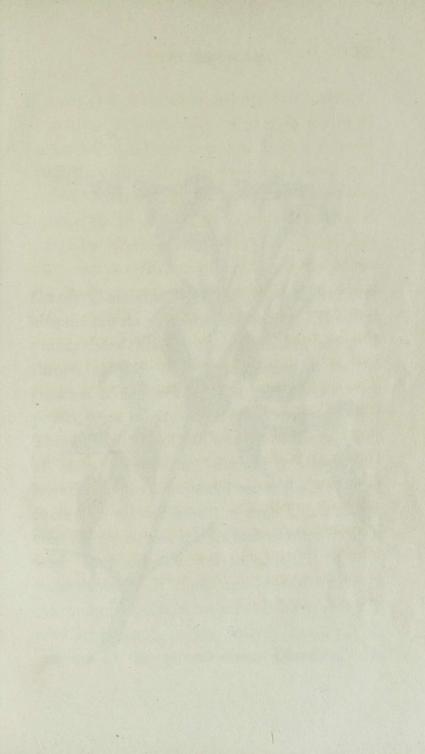
This flower is pretty but scentless. It does not possess the attraction of the rose, the honeysuckle, the lily, the carnation, or even of the sweet pea, yet it is by no means without its share of beauty. The spreading bellshaped corollas of the 1 major Convolvulus, its creeping graceful stem, and the changing hues of colour, from rich dark purple to pink, or even pure white, often on the same plant, charm the eye with their elegance and variety. You must all of you be acquainted with the large white bindweed or bellbine, that twines wild amongst the plants and hedges in summer; it is of the same species, only that of the garden is coloured and striped. The Convolvulus belongs to the fifth class, Pen-

^{1.} Major, larger than another.

tandria. Its corolla consists of one petal, in the form of a bell; the stamens are five in number; the calyx is divided into five parts; the leaves are heart-shaped and undivided; and the blossoms spring up on short 2 peduncles from the end of each leaf. This plant, if supported, will climb to the height of ten or twelve feet. The 3minor Convolvulus has lance-shaped smooth leaves, and a weak falling stalk that never climbs. The corolla is smaller than that of the major Convolvulus, and of a beautiful blue with a white eye. The seed vessels of both are wrapped up in the calyx, and contain two roundish seeds. The lesser wild bindweed, so frequent among corn, and indeed everywhere in the fields, is also one of the same family. The corolla is either white, red, or variegated. Some of them are very beautiful, but they are troublesome in the garden, as they creep intolerably at the root, and where it once takes hold, it is difficult to get rid of.

^{2.} Peduncle, the little stalk that supports the flower.

^{3.} Minor, smaller than another.





The Jasmine or Jessamine.

within it you will tind on short kinners.

CHASTE, amiable flower! How light, how elegant are its star-like blossoms! The fragrant, the delicious, the refreshing odour it throws around; how invigorating! In the contrast of its dark slender leaves and snowy petals, what purity, what grace are combined! Though a native of Malabar and several parts of India, it does not disdain to display its beauties to the less genial sun of the Northern shores, or shrink from the rude kisses of our cold winds, but flourishes and flowers as if it were born on the soil to which it is only transplanted. If then the Jessamine is so charming in exile, what must it be growing in wild luxuriance in its native country. It belongs to the second class, Diandria. Its

corolla consists of one petal, cut at the top into five segments or points. The calyx is 1 permanent, of a tube-like form, divided at top, like the corolla, into five equal parts. Should a Jessamine be in flower when you read this, take a blossom and slit in two; enclosed within it you will find two short stamens. It is a slender and 2 flexible growing shrub. The leaves of a dark smooth and shining green, consisting of several 3 leafets, set on pairs on a slim stalk, as you see in the engraving. The blossom is 4 deciduous, falling off while in full beauty, the calyx remaining on the stalk. You have seen beneath a Jessamine shrub in blossom, numbers of the corollas scattered on the ground, apparently as fresh as when on the plant; this is the meaning of deciduous. The rose is not deciduous; because after lasting awhile the colour fades, and the petals fall at the first breath of wind that sweeps over

^{1.} Permanent, lasting, not falling off.

^{2.} Flexible, easily moved.

^{3.} Leafets, small leaves, a number on one stalk forming a leaf.

^{4.} Deciduous, falling off.

them; while the bloom of the Jessamine drops fresh and unfaded from the branch, on which a moment before it hung in bright and unclouded beauty. Its flowers grow several in one bunch. The yellow Jessamine has rounder leaves; the flowers are not so slender and pointed; the stem is more bushy; and it is devoid of perfume.

THE JESSAMINE.

There is a flower, in virgin white array,
Opening its starry gems to greet the solar ray;
Its soft green leaves amongst the flowers entwine—
It is the bright and lovely Jessamine.

A thousand sweets its beauteous flowers conceal, Which passing zephyrs labour to reveal; To its retreat fly all the honey-bees, Drawn by its perfume, wafting on the breeze.

Perched on the nearest tree, loud sings the thrush, And plaintive linnets pipe on every bush; Warbling the graces and the charms divine Of this sweet flower—the lovely Jessamine.

The Passion Flower.

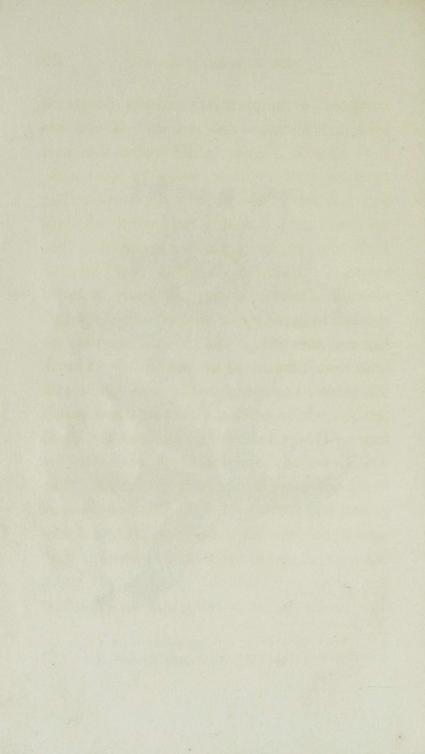
control of the state of the spore bushive

FLOWER. It is very beautiful, but has nothing else to recommend it; it is both scentless and short lived. There are several different species of this flower, though none of them are European, but mostly natives of New Spain, the Brazils, and the West Indies. It belongs to Pentandria, the fifth class. It has a calyx of five leaves and a corolla of five petals; five stamens fastened to the bottom of the pistils, which are three in number. In the 1 centre of the flower are two 2 radiated crowns, the inner one bending towards the pistil, the outer one spreading flat over the petals, and

^{1.} Centre, the middle.

^{2.} Radiated, pointed like the rays of a star.





composed of innumerable threads, purple at bottom but blue on the outside. This is the blue Passion Flower, which being the most common, you are more likely to meet with. It is a native of the Brazils, yet it flourishes very well, and is seldom injured by the cold here, except in very severe winters. leaves of the blue Passion Flower are palmated (so called from their resembling the palm of the hand), having five smooth entire 3 obtuse 4 lobes; the middle one is the longest, the outer one the shortest, and often divided. The flower comes out at the same point with the leaf, on a 5 peduncle of near three inches long. The stems are slender, and the plant is a creeper, throwing out 6 tendrils, by which the branches support themselves. The flowers last only one day, but there is a constant succession of them from July till the frosts of Autumn stop their growth. The

^{3.} Obtuse, not pointed.

^{4.} Lobes, divisions of a leaf, round at the edges, and standing at a distance from one another.

^{5.} Peduncle, a little stalk.

^{6.} Tendrils, the clasp of a vine.

other sorts are too tender to grow in the open air, and require the protection of the conservatory or even the hot-house.

THE PASSION FLOWER.

The Passion Flower blooms
'Mid summer skies.
At morn it buds,
At eve it dies;
Its 7 transient beauties born
But for the beam
Of sunshine; telling
That life flies like a dream,
Just as its blossoms frail
That fear the frown of night,
The cold of winter's gale,
And live but in the light.

^{7.} Transient, soon past, quickly at end.



cles called 2 anthers. The seed wessel ends in

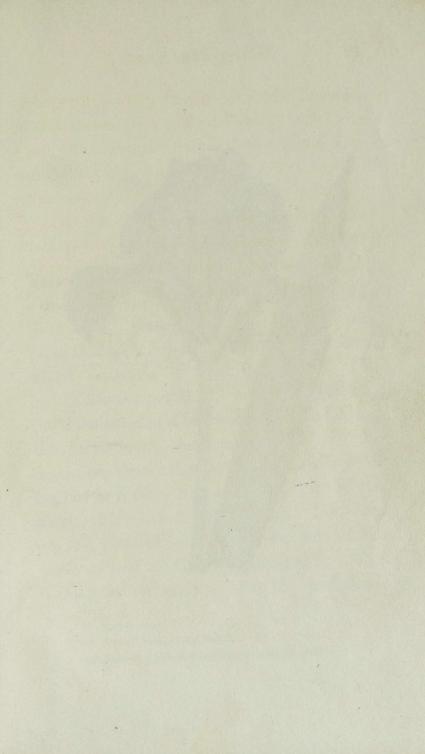
The Geranium.

smaller then those of some of the other sorts;

There are few little boys or girls who are not acquainted with this pretty plant. It possesses many beautiful specimens, some of them having very brilliant colours, and their green leaves possessing a pleasant 'aromatic perfume. These are the African species, of which so many have been brought from the Cape of Good Hope. Their general features consist in a calyx of five leaves united at bottom, five unequal petals, and ten stamens. The flowers grow many in a bunch, on small peduncles, forming an elegant head of blossoms. The Geranium belongs to Decandria, the tenth class. The pistil is crowned with five small threads, and is longer than the

stamens, which are terminated by little particles called ²anthers. The seed vessel ends in a long beak, from which they take the name of cranesbill. The brilliant scarlet Geraniums are very common. Their petals are much smaller than those of some of the other sorts; the leaves roundish, hairy, and notched at the edges. Art has greatly varied the colours of the Geranium, and even altered the shape of its petals, so that it is by the leaves only we are able to distinguish the different kinds. In England there are several wild species to be met with, especially in light sandy soils. Some of you may be acquainted with the pretty flower common on hedges in the summer months, called cranesbill. Its petals are five, in the form of a star, of a bright and delicately veined pink; this is one of them. There are many other sorts, some larger some smaller, some growing amongst corn or grass, others on hedges, walls, in ditches, and woods.

^{2.} Anther, a little box which contains the fine yellow dust, called pollen.





The Kris or Flag.

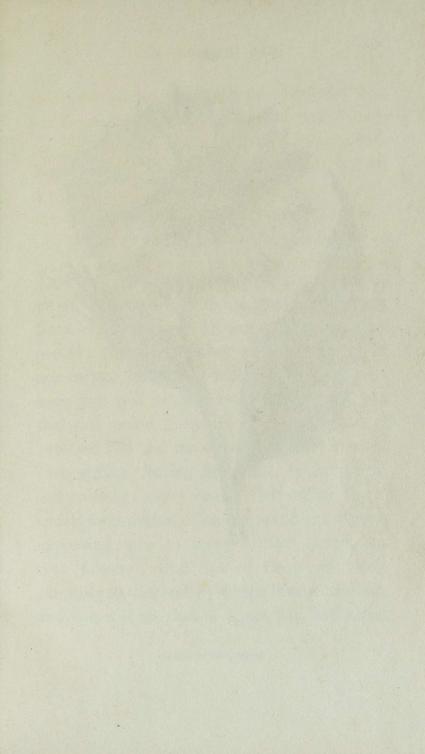
This flower, with its tall waving blossoms of a deep rich purple, belongs to Triandria, the third class. Gather one; first you will perceive that each flower has a pale green sheath, which separates it from the others. The corolla has six petals, all united at bottom; the three outermost of these petals bend down, the three inner ones stand 'erect. In the centre are three other petals, as they seem to be, but in reality they are the points of the pistil, which has three divisions. Lift them up, and you will detect a single stamen underneath each of the three, terminated by a large 'oblong flatted 'anther. For the seed vessel

^{1.} Erect, upright.

^{2.} Oblong, longer than broad.

^{3.} Anther, the little box that contains the pollen.

you must search under the corolla; you will find it a green oblong body. The leaves are long, plain, smooth, and narrow, something like a broadsword in shape. The flowers of the Iris are sometimes white; they possess a faintish kind of scent. There are several different sorts, some of them very small. The large yellow Flag or Iris, which grows wild in damp places, deep water ditches, and the banks of rivers, is extremely pretty and elegant. Snails are very fond of the Iris, and harbour in great quantites on the leaves close to the roots.





The Sunflower.

This majestic flower, with its immense corolla, which seems to vie with the glorious luminary from which it takes its name, is called compound; that is, a number of little flowers in one calyx. Look at it well, for by its appearance you will be surprised when I tell you that this noble flower is really composed of between two and three hundred other flowers, each of them having its corolla, ¹germ, pistil, and stamens; every one of the yellow leaves which form a kind of crown round the flower, appearing to be so many distinct petals, are true flowers. Pull one of them off; look carefully at the end by which it was fastened, and you will see that it is not flat, but round

^{1.} Germ, seed vessel.

and hollow, in the form of a tube; the little thread that issues from it is the pistil. The disk or middle of the flower you will say is filled with stamens. No such thing. Look closer; they are all distinct flowers, each having a 2 monopetalous corolla, with pistil and stamens. The yellow ³ florets nearer the centre are commonly round and closed; they are like the others, but not yet open, for they ⁴expand successively from the edge inwards. The calvx consists of several 5 leafets, placed in two or more rows, within which all these various flowers are pressed and enclosed. The stem is tall and straight, and the flower nodding or bent down; the leaves heartshaped, marked with three large veins. Every species of this ⁶genus was originally a native of America, though they are now so common with us as to be almost disregarded. The Sunflower possesses great magnifi-

^{2.} Monopetalous, consisting of one petal.

^{3.} Floret, a little flower,

^{4.} Expand, to open.

^{5.} Leafets, small leaves.

^{6.} Genus, a class, order, species.

floret, yet how perfect! How tall and majestic it looks, as it turns to face the bright sun! But so quickly does it spread, both by root and by seed (requiring no care in its cultivation), that this noble and majestic flower is almost depised by the fickle gardener, who frequently pulls it up to make room for some insignificant, though more rare favourite. It belongs to Syngenesia, the nineteenth class.

There are Twenty-four Classes of Plants, which are distinguished as follows:—

Monandria, the first, one stamen.
Diandria, the second, two stamens.
Triandria, the third, three stamens.
Tetrandria, the fourth, four equal stamens.
Pentandria, the fifth, five stamens.
Hexandria, the sixth, six equal stamens.
Heptandria, the seventh, seven stamens.
Octandria, the eighth, eight stamens.
Enneandria, the ninth, nine stamens.
Decandria, the tenth, ten stamens.
Dodecandria, the eleventh, from twelve to nineteen.
Icosandria, the twelfth, twenty—placed on the calyx or corolla

Polyandria, the thirteenth, many—from twenty to a thousand, on the seed vessel.

Didynamia, the fourteenth, four stamens, two longer and two shorter.

Tetradynamia, the fifteenth, six stamens, four long and two short.

Monadelphia, the sixteenth, one brotherhood, or stamens all united.

Diadelphia, the seventeenth, two brotherhoods, or stamens united in two bodies.

Polyadelphia, the eighteenth, many brotherhoods, or stamens in three or more parcels.

Syngenesia, the nineteenth, anthers united.

Gynandria, the twentieth, stamens growing on the pistil.

Monœcia, the twenty-first, one house, or ¹ imperfect flowers separate on the same plant.

Diœcia, the twenty-second, two houses, or imperfect flowers on different plants.

Polygamia, the twenty-third, perfect flowers, accompanied by imperfect of one or both sorts.

Cryptogamia, the twenty-fourth, flowers and fruit, invisible to the naked eye.

 Those flowers are called imperfect, which have stamens without pistils, or pistils and no stamens, in one flower, growing on the same or on separate plants. 56774 Ocher Rugal Botani Gordens, Kein

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