

ed it, and the *specific* name signifying blue, being the Latin term for that colour.

I should like to tell you more about the flowers of this class, but as you proceed in your analysis of plants, you will find many pretty wild-flowers which belong here, as well as some splendid green-house plants.

CHAPTER XXII.

Class 5th—Class 6th.

CLASS V. PENTANDRIA, five stamens.

Order 1. *Monogynia*, one pistil.

546. The fifth class is said to include about a tenth part of all known species of plants. The flowers of this class have *five separate* stamens, while those of the class Syngenesia have five stamens whose anthers are *united*.

Fig. 76.



547. Fig. 76, shows you, at *a*, a flower called Loose-strife; this in Botany is known by the generic name *Lysimachia*, which is derived from *Lysimachus*, the discoverer of the medical virtues of an ancient plant so named. You may find several different species of this plant in June and July by the sides of brooks and in low meadow-grounds. The flowers are wheel-form, and generally yellow.

At *b*, (Fig. 76,) is a picture of the blossom of the trumpet honeysuckle, called *Lonicera*, from *Lonicer*, a botanist of the 16th century. This flower has a very small *five-cleft* calyx, which is *superior* or above the germ; the corolla is *monopetalous*, and *tubular*; the tube is *oblong*, the *limb* of the corolla is deeply divided into five *revolute* parts or segments, one of which is separated from the others; the filaments are *exserted*, the anthers *oblong*.

545. In what class and order did the lady find the flower of Innocence, and what is its botanical name?

546. What is said of the plants of the fifth class?

547. What does Fig. 76 represent?

548. In the fifth class are to be found some large natural families of plants; of these I shall mention the *Asperifoliæ*, from the Latin words *asper*, rough, and *folium*, a leaf, signifying rough-leaved plants. In this family are many different genera, all of which have hairy or rough leaves; the *Cynoglossum* is so called from the Greek *kuon*, a dog, and *glossa*, tongue, the broad oval leaves being thought to resemble a dog's tongue. The common name of the plant is Hound's-tongue. Although this is considered as belonging to the family of rough leaved plants, the hairs of its leaves are soft and downy, like the surface of velvet; it is about two feet high, having *panicles* of reddish purple flowers. You must not fail to collect specimens of this plant to analyze; it is in blossom about the middle of summer, growing by the sides of fences or near roads, and about old buildings.

549. There is a large family of plants in this class, called the *Luridæ*, from *lurid*, signifying pale or livid, as this is the general appearance of the plant. In this natural assemblage is the Potato, the blossoms of which you will do well to examine; the little green balls which grow from the flowers are the pericarps and contain the seed; but the plant is generally produced from the root.

550. The botanical name of the genus in which the potato is found is *Solanum*, from *solor*, to comfort; because some species in the same genus possess narcotic qualities. You would not expect to find in the same genus with the potato, plants which are highly poisonous, and yet here is the night-shade (*Solanum dulcamara*) whose berries are so injurious to life, that thirty of them once given to a dog, first drove him mad, and then caused his death, in less than three hours. Children should be very careful not to touch these berries, which are red, and might easily be mistaken for currants, especially as they grow by hedges, where such fruit is often found. It is always unsafe to eat any vegetable production, which is not well known and familiar.

551. In the genus *Solanum*, are the Tomata, or love apple, and the Egg-plant, which in southern countries are much used in soups and sauces. In our climate, although they may be easily cultivated, they do not appear to attain that richness and perfection which is common in southern latitudes.

552. But the most valuable plant in the genus *Solanum* is

548. What is said of the family called *Asperifoliæ*, and of the genus *Cynoglossum*?

549. What is said of the family called *Luridæ*?

550. What is said of the genus which contains the potato?

551. What is said of the Tomata and Egg-plant?

552. What is the most valuable species in the genus *Solanum*?

the *tuberosum*, so called from its *tuberos* root; this is our common Potato; it was at first obtained from Peru, where it was called *batatas*. Of the important use now made of the root of this vegetable, it is unnecessary to remark; as an article of food it is scarcely less valuable than bread itself, and indeed is often used by poor people as a substitute for this article.

553. In the large family Luridæ, or *lurid* plants, is the genus *Nicotiana*, so called from Nicot, who carried it from America to Europe; one species of this, *Tabaccum*, is the Tobacco plant. Here also is found the *Datura Stramonium*, sometimes called thorn apple, a large, nauseous-scented weed, with angular, dentate leaves. The corolla is funnel-form and five-cleft; the pericarp is ovate and spinose; at the base is a portion of the calyx which remains permanent, while the other parts are deciduous. In the spring of 1835, a young lady of Vernon, in Vermont, while amusing herself with a walk in the fields, saw some of the last year's pericarps of the Stramonium, and carelessly ate a small quantity of the seeds. She was soon seized with spasms, and died after a few hours of excruciating agony. Had she understood Botany, she might have known, from the general appearance of the plant, that it was of a poisonous nature.

554. Among the many plants of the fifth class and first order, you will find the mullein, which every child knows by its large woolly leaf, and its high stalk, bearing yellow blossoms in that form which is called a *spike*. Violets you will find from the earliest days of spring to the verge of winter. In the fields are white, blue, and yellow violets, and in gardens is the heart's ease, or tri-coloured violet. The grape belongs to this class and order; the fruit of the plant is probably more familiar to you than the flower, which is small and inconspicuous.

555. In some species of the grape, the stamens and pistils are on different flowers; and for this reason this plant has sometimes been placed in the class *Diœcia*; but as other species have five stamens and one pistil in the same flower it is generally thought best to class the whole under *Pentandria*.

553. What other genus is mentioned as belonging to the family called Luridæ?

554. What other plants are mentioned as belonging to this class and order?

555. Why is the grape sometimes placed in the class *Diœcia*?

556. ORDER 2, *DIGYNIA*, *two pistils*. In this order of the fifth class is a very large natural family of plants, called *Umbelliferous*, or *umbellate*, from the manner of their inflorescence, which is in the form of an *umbel*, or umbrella, as you can see in Dill, Fennel, or Carroway.

557. Plants with umbels are to be found every where in summer; such as are poisonous grow in low, wet ground, as the Poison-hemlock, Cowbane, &c. Some useful table vegetables belong to this family, as Celery, Parsnips, &c. Some of these plants produce seeds useful in medicine and confectionary, as Anise and Coriander.

558. ORDER 3, *TRIGYNIA*, *three pistils*. You will find here the Elder, a shrub with delicate, white flowers, growing in clusters called *cymes*; children very early learn to know this plant, not only by its flowers, but by its dark red berries, with which they sometimes mischievously stain their clothes and faces. The Snow-ball is a very showy, handsome, and ornamental shrub; there is a wild plant which is common in the woods, that is not less beautiful than this; it is a species of the same genus *Viburnum*, and is well worth being transplanted to cultivated grounds.

559. ORDER 5, *PENTAGYNIA*, *five pistils*. The flax is found here. Its botanical name is *linum*, so called from a Celtic word, *lin*, a thread. The blossom of the flax is very pretty; its colour is pale blue, and it stands upon a straight, erect stalk. This is one of the most valuable of the vegetable productions.

There are other orders in the fifth class, but we cannot now stop to consider them; when you have learned what this book contains, your kind parents will be willing to furnish you with the larger volume to which this is an introduction:* in that you will find a great many interesting facts with respect to plants, that could not be mentioned in so small a book as this

CLASS VI.—*HEXANDRIA*, *six stamens*.

560. ORDER 1, *MONOGYNIA*, *one pistil*. In this class are a great many beautiful exotics; most of which are distinguish

* Familiar Lectures on Botany.

556. What large family of plants do we meet with in the second order of the sixth class?

557. Are these plants common?

558. What plants are mentioned in the 3d order of the class *Pentandria*?

559. Describe the Flax.

560. What is said of some of the plants of the 6th class?

ed by having *bulbous* roots, seeds with but *one cotyledon*, and stems which grow from the centre outwardly, and are therefore called *endogenous*.

Fig. 77.



561. Fig. 77, represents a flower of the sixth class and first order, called by the ancients *Asphodel*; it was considered by them as sacred to the dead, and made to grow around the tombs.

562. We find in this class and order the family of liliaceous plants, including the various kinds of lilies, tulips, crown-imperial, &c. You have already been made acquainted with the characteristics of these plants.

563. The Lily is in Botany called *Lilium*; this genus consists of many species. The white Lily (*Lilium candidum*) is perhaps more admired than any other species; its fragrance is very agreeable, and its corolla of a pure and brilliant whiteness. There are several besides the garden lilies which are much valued by florists. You may find in July and August, growing in meadows, two or three wild lilies; one has large orange flowers spotted with yellow and brown, and another with yellow flowers.

564. I will here tell you the distinction between a florist and botanist—the former cultivates flowers for their beauty, and may know nothing of their scientific arrangement; the latter examines them with reference to their various scientific characters, and is often as much delighted with finding a little, obscure, wild flower, as the florist is when he meets with some splendid exotic. It is very strange that all florists should not wish to be botanists.

565. Tulips are usually great favourites with florists, who delight in producing *varieties* in their colours by different modes of cultivation, and also in obtaining double flowers by a peculiar method of culture. Although the petals of the tulip in its natural state are but six, yet by care in its cultivation, it may, like the rose, be brought to produce many petals.

566. In this class and order are some tropical plants, whose fruits are very valuable in their native regions,—the Genus

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561. What does Fig. 77 represent?
 562. What plants belong to the family of Liliaceous plants?
 563. What is said of the Lily?
 564. What is the difference between a florist and a botanist?
 565. What flower is a great favourite with florists?
 566. What is said of the Plantain tree?

Musa, affords the Plantain and Banana trees, whose leaves and fruit are of great size. The Plantain trees grow to the height of twenty feet, having leaves about six feet long and two broad. Some of these trees in a plantation will not fail to be in bearing at every season of the year, so that the inhabitants of the countries which produce them are in no danger of perishing for want of food. The fruit when used as bread is roasted or boiled; it is also made into pies, or dried and preserved as a sweet meat. Three dozen of plantains are considered as sufficient food for a man during a week, and it is said will support him better than bread.

567. The fruit of the Banana is not unlike the cucumber in form and size; when ripe it is soft and pleasant to the taste. It is introduced at desserts at the tables of the rich in the West Indies; and is much used as an article of food among the poorer classes of people. How kind, my dear children, is Providence, in thus causing the earth to bring forth cooling and nourishing fruits and refreshing shades in those parched and burning countries!

568. The Aloe belongs to the class and order we are considering; there are a great many species of it; some grow but a few inches high, and others to the height of tall trees. The Aloe is a native of hot countries. The Negroes of the Western coast of Africa, make nets of the fibrous parts of the leaves of this plant; the Hottentots use the stem for their arrows. The people of Jamaica obtain materials from the Aloe plant from which they make fishing nets, stockings, and thread. In Mexico, a species of aloe serves for hedges, enclosures, beams for the roofs of houses, and leaves for their covering: its wood and fibres furnish needles and thread, cloth and ropes, while its juices afford sugar and vinegar. The juice of aloes was used among Eastern nations in embalming their dead. This plant is often spoken of in the Bible, particularly in the Old Testament. It is very useful in medicine; for which purpose it is prepared by pressing from its leaves a gummy substance of an extremely bitter taste, from whence comes the very common comparison, "as bitter as aloes." The Island of Socotra was the first place where this gum was prepared; hence it was called *Socotrine aloes*, a name which is still in use. Many plants of this genus produce beautiful flowers; some are said not to blossom until they are 100 years old.

It is necessary to pass over many interesting plants which

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567. What is said of the fruit of the Banana?
 568. Repeat what is said of the Aloe plant.

we might name here, as the Lily of the Valley, Hyacinth, Scotch hare-bell, &c

569. ORDER DIGYNIA, *two pistils*. We find here the genus *Oryza* which contains the Rice; this is a grass-like plant, but, on account of its six stamens and two pistils, is not placed in the same class with most of the grasses. This is a southern production, and one of great importance; giving food to a great portion of the inhabitants of hot countries.

CHAPTER XXIII.

Class 7th—Class 8th—Class 9th—Class 10th—Class 11th—
Class 12th.

CLASS VII. HEPTANDRIA, *seven stamens*.

Order 1. MONOGYNIA, *one pistil*.

Fig. 78.



570. This picture shows a blossom of the Horse-Chestnut, a plant which was introduced from Asia into Europe in the year 1500. It is a small tree, which produces showy panicles of white and red flowers crowded together in the form of a pyramid.—The botanical name of this plant is *Æsculus*, from *esca*, food; probably from a mistaken idea that its nut might prove valuable as such. The species of *Æsculus* most common with us, is the *hippocastanum*, which signifies horse-chestnut, being derived from the Greek words of that signification.

571. There are three other orders of the seventh class, but none contain plants which you will be likely to meet with, or which are much celebrated. Belonging to this class and order there is a very small plant, called chickweed winter green, or *Trientalis*; you may find it in woods about the roots of trees in May and June; the small white flowers are stellate, and or

569. What plant is mentioned in the 2d order of the class Hexandria?

570. Describe the Horse-chestnut.
571. What is said of the *Trientalis*?

slender peduncles, the leaves are six or seven in a terminal whorl.

CLASS VIII. OCTANDRIA, *eight stamens*.

ORDER 1. MONOGYNIA, *one pistil*.

Fig. 79.



572. This picture shows you a blossom of the Lady's ear-drop, a very beautiful exotic, whose generic name is *Fuchsia*, so called from *Fusch*, a German who discovered it. The part which you would think is the corolla, is the calyx, this is of a beautiful crimson colour; the petals are purple and rolled around the stamens beneath the calyx.

573. As an example of the eighth class, almost every garden will afford you the Nasturtion, which was originally brought from South America. In examining this plant, you will perceive it has not that regularity of parts which is found in many. It has eight stamens, while the number of its petals is neither four nor eight, but five. The fruit consists of three seeds. The leaf is of a *pettate* form

CLASS IX. ENNEANDRIA, *nine stamens*.

ORDER 1. MONOGYNIA, *one pistil*.

Fig. 80.



574. The picture presents at *a*, the *Butomus umbellatus*, or Flowering rush; it has no calyx; its petals are six, and egg-shaped stamens nine; its germs are six, and therefore by some botanists it is placed in the sixth order. This plant blossoms in June, and is usually found near the margins of small lakes and ponds, or in ditches and low wet grounds; it has umbels of pretty rose-coloured flowers. It is spoken of by European botanists as common among them; but it is not known to be a native of the United States.

575. The genus *Laurus* belongs to the first order of the ninth

572. Describe the Lady's ear-drop.

573. What is said of the Nasturtion?

574. What is said of the *Butomus umbellatus*?

575. What is said of the genus *Laurus*? What of the *Laurus Nobilis*?

class; the name may be derived from the ancient Celtic, which signifies green, the leaves of this plant being mostly perennial and evergreen; some suppose it derived from *laus*, praise, as it was used for crowning victors or poets.

One species, the *Laurus nobilis*, or noble laurel, is the Bay of the ancient Romans. They considered it as a peculiar favourite of Jupiter the thunderer, and some wore it as a protection against his thunderbolts. But this, you know, was a ridiculous superstition, like many other notions of the believers in the Grecian mythology, since there is but one living and true God, and to Him all the vegetable creation is equally dear; He has made plants for the support of man and beast, and for the beautifying and refreshing of the earth on which we live—that we should love and cherish these His gifts, is undoubtedly agreeable to him; but if we deserve his frowns, no bough of a plant, nor even the rocks or mountains, can shield us from the effects of His anger—But it was before men had learnt from the Bible to worship one God only, that they thus fell into such foolish errors with respect to the Powers in Heaven; none in Christian countries now adhere to the superstition of the ancients, although there are some who are worse than the heathen, by refusing to believe, although God has revealed himself to men through His Son, who sealed with his own blood the message delivered to them.

576. The *Laurus* is an important plant: for besides the honour and superstitious regard bestowed upon it by the ancients, it now affords us very important medicines, as well as some of our most valuable spices.

577. The *Laurus Camphor* is the camphor tree. Camphor is obtained from its roots, leaves, and wood.

The *Laurus Cinamomum* is the cinamon tree, whose inner bark or *liber* furnishes this valuable spice.

The *Laurus sassafras* is the American sassafras tree.—Children are fond of the bark of this plant, which is sometimes improperly called *saxifax*.

578. The third order of the ninth class contains the genus *Rheum*, or the Rhubarb. Fig. 80, at *b*, represents a flower of this genus. The *Rheum palmatum* furnishes the medicinal rhubarb, which is obtained from its thick, yellow roots. The *Rheum tartaricum*, or sour rhubarb, is much cultivated in gardens, and is a useful plant for tarts, which are made from its large, thick, and juicy petioles.

576. Why is the *Laurus* an important plant?

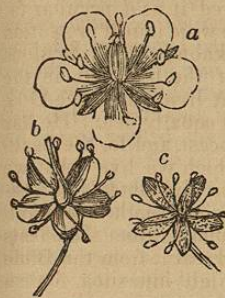
577. Which are some of the species of the genus *Laurus*?

578. What plant is mentioned as belonging to the third order of the ninth class?

CLASS X. DECANDRIA, ten stamens

ORDER 1. MONOGYNIA, one pistil.

Fig. 81.



579. This cut represents at *a*, a flower of the genus *Ruta*, (*rut*;) its calyx is *monosepalous*; it has five petals; the germ is large and *superior*.

At *b* is a flower of the *Saxifraga*; one species of this, sometimes called beef-steak geranium, is a very common and hardy green-house plant, with creeping roots and roundish hairy leaves.

At *c* is a flower of the genus *Ledum*; this corresponds with the *Saxifraga* in the number of its petals; it is in some parts of Europe valued as a medicinal plant.

580. In the tenth class, are to be found the wintergreen and the whortleberry; which are well known to children; the former for its pleasant tasted leaves, and fine red berries, and the latter for its fruit. You must seek for these flowers, they are very pretty, and easy to analyze.

581. This class has several orders; the second order contains the pink and some other interesting flowers. The tenth order has the poke-weed, a high plant, which you find so common by the waysides, with long, broad leaves, and purple berries.

579. What does Fig. 81 at *a* represent?

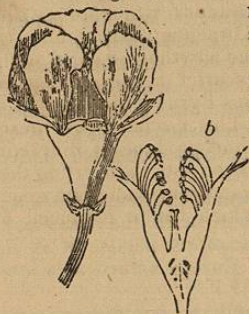
580. What is said of the wintergreen and whortleberry?

581. What is said of the other orders of this class?

CLASS XI. ICOSANDRIA, more than ten stamens inserted on the calyx.

ORDER I. MONOGYNIA, one pistil.

Fig. 82.



582. In this class, the number of stamens is not regarded, so much as their situation. If you remember what was said about the rose in the 4th chapter, you will understand what is the essential character of this class. The rose, however, does not belong to the first order.

583. In this order we find a genus called CACTUS, one of the species of which is the Prickly-pear. This contains many species; a very splendid one is the Night-blooming Cereus, (CACTUS grandiflorus,) having flowers nearly a foot in diameter, with the calyx yellow, and the petals white; the flowers begin to open soon after the setting of the sun, and close before its rising, never again to blossom. Another species, (speciosissimus,) with flowers of the colour of crimson velvet, is said to be still more superb than the grandiflorus. These plants are mostly destitute of leaves, but the stems appear like a series of thick, fleshy leaves, one growing from the top of another.

584. PRUNUS is the genus which contains the various kinds of the Plum, Cherry, and Sloe: this genus, according to ancient writers, was brought from Syria into Greece, and from thence into Italy. The Roman poets often notice its fruit. We have several native species of it.

585. The Pomegranate is a shrubby tree, which is a native of Spain, Italy, and Barbary, and flowers from June till September. The Greek writers were acquainted with it, and we are told by Pliny, that its fruit was sold in the neighbourhood of Carthage. It is cultivated in England and in the United States; not on account of its fruit, which does not come to perfection so far to the north, but for its large and beautiful scarlet flowers, which render it an ornamental plant.

582. What circumstance is more regarded in the class Icosandria than the number of stamens?

583. What is said of the genus Cactus?

584. What is said of the genus Prunus?

585. Of the Pomegranate?

586. The genus AMYGDALUS contains the Peach and the Almond. The latter is a native of warm countries, and seems to have been known in the remotest times of antiquity.

ORDER DI-PENTAGYNIA, from two to five pistils.

587. The four orders in the class Icosandria which follow the first, are included under one, called Di-pentagynia, signifying from two to five pistils. We find here the hawthorn, a shrub with deep green foliage, white flowers, and scarlet berries, and with very large and strong thorns. The genus Pyrus which contains the Apple and Pear, belongs here. The varieties of these fruits are the effect of cultivation, not the produce of different species. By means of grafting, which consists in inserting the sprout of one plant into the body or branches of another, good fruit may be produced upon a tree which before produced a poorer kind.

ORDER POLYGYNIA, many pistils.

588. We here find the Rose; this, in its natural state, contains but five petals; it is remarkable for its stamens and pistils changing to petals by cultivation. Several species of the Rose are indigenous to North America; as the small wild rose, the sweet briar, and swamp rose. Red and white roses are remarkable in English history as emblems of the houses of York and Lancaster; for when those families contended for the crown, in the reign of Henry the Sixth, the white rose distinguished the partizans of the house of York, and the red those of Lancaster.—The Moss rose, Rosa muscosa, has its name from the moss-like substance with which the flower, stem, and calyx, are covered; it is in fact a collection of glands, containing a resinous and fragrant fluid. Roses are favourite plants in all countries where they are found; but it is remarkable that none have ever been met with growing wild in the southern hemisphere.—Among the ancients, particularly the Egyptians, roses were considered as symbols of silence, for which reason the goddess Isis, and her son Harpocrates, who was the god of silence, were crowned with chaplets of those flowers. The eastern nations, especially the Persian, boast of the beauty and splendour of their roses.

589. The Blackberry, (Rubus,) has a flower resembling the

586. Of the genus Amygdalus?

587. What is said of the order Di-pentagynia, and of some of the plants contained in it?

588. What is said of the Rose genus?

589. Of the different species of the Rubus?

rose in its general aspect: there are several species of the Rubus, one of which produces the common Blackberry, another the Red-raspberry, another the Black-raspberry, and another the Dew-berry. One species of the Rubus, the *odoratus*, produces large and beautiful deep red flowers; the fruit is dry, and not eatable.

590. The strawberry belongs to the same natural and artificial order as the Rose; these genera, with several others, form a natural family, sometimes called, from the appearance of the flower, Rosaceous plants, and sometimes from the fruit, which is a pome, Pomaceæ.

The gathering of strawberries in the fields, is among those rural enjoyments of childhood, which in after life are recollected with pleasure, not unfrequently mingled with melancholy reflections, upon the contrast of that happy season, with the sorrows with which maturer years are often shaded. Such reflections produced the following beautiful lines from a late female poet.*

"The Strawberry blooms upon its lowly bed,
Plant of n v native soil! The Lime may fling,
More potent fragrance on the zephyr's wing:
The milky Cocoa richer juices shed,
And white Guava lovelier blossoms spread;
But not, like thee, to fond remembrance bring,
The vanish'd hours of life's enchanting spring.
Short calendar of joys forever fled!
Thou bid'st the scenes of childhood rise to view
The wild wood path which fancy loves to trace,
Where, veiled in leaves, thy fruit of rosy hue,
Lurked on its pliant stem with modest grace,
But, ah! when thought would later years renew
Alas! successive sorrows crowd the space."

* Helen Maria Williams.

590. What is said of the Strawberry?

CLASS XII. POLYANDRIA, more than ten stamens inserted on the receptacle.

Fig. 83.



591. In this class we find the stamens separate from the calyx, and attached to the receptacle or top of the flower stem. The number of stamens in this class varies from ten to some hundreds. This class does not, like the one we have last examined, contain many delicious fruits, but abounds in poisonous and active vegetables. The mode of the insertion of the stamens is to be regarded in considering the wholesome qualities of plants; it is asserted that no plant with the stamens on the calyx is poisonous; we know that many with the stamens upon the receptacle are so.

592. Fig. 83 represents, at *a*, a flower of the Clematis with many stamens growing on the receptacle; *b* shows the receptacle with numerous short styles attached to it, *c* and *d* represent a stamen and petal which were inserted on the receptacle below the styles. On account of its many styles, the clematis is placed in the 13th order.

ORDER 1. MONOGYNIA, one pistil.

593. We find here some flowers of a curious appearance, as the Mandrake, or May-apple. This plant is common in moist, shady places, where you may often see several growing together; each stem supports a large white flower and two large peltate palmate leaves; the fruit is yellow, and eaten by many as a delicacy; the root is used in medicine.

594. The Side-saddle flower (*Sarracenia*) is a very curious and elegant plant; it has large leaves proceeding directly from the root. These leaves form a kind of cup, capable of containing a gill or more of water, with which liquid they are usually filled. The stem is of that kind called a scape, growing to the height of one or two feet, bearing a single large purple flower. This plant is found in swamps; its common name, Side-saddle flower, is given on account of the form of its leaf. It is sometimes call-

591. What remarks are made respecting Class Polyandria?

592. Describe Fig. 83.

593. What is said of the Mandrake or May-apple?

594. Describe the side-saddle flower.

ed Adam's cup, in reference to the cup of the leaf. The name of the genus *Sarracenia*, is derived from Mons. Sarrasin, a French physician, who wrote about the natural history of Canada. No foreign plant, as an object of curiosity, can exceed this native of our own swamps; it is well worth the trouble of cultivation by those who are fond of collecting rare plants.

595. The White Pond Lily, is a splendid American plant, very fragrant and with a larger leaf than almost any other northern plant. The Yellow Pond Lily, though less showy, is equally curious in its structure.

The Poppy is a plant which may be found in almost every garden; it is a good example of this class. It affords a juice, which on being dried becomes opium.

596. In the same class and order is the Tea plant, (THEA;) of this there are two species, the bohea tea (*bohea*) and the green tea (*viridis*.) It is a small evergreen tree or shrub, much branched, and covered with a rough, dark coloured bark. The flowers are white, the leaves are lanceolate and veined, the capsule or seed vessel is three celled, it has three seeds, oblong and brown. This shrub is a native of China and Japan. Some suppose, that in reality, all the teas are taken from the same botanical species, and that the different flavour and appearance of them depend upon the nature of the soil, the culture, and the method of preparing the leaves.

597. Having mentioned under the first twelve classes some of the most important plants which belong to them, I shall not attempt to go farther at present; if you collect flowers, and prepare herbariums according to the directions given in the former part of this book, you will soon have some specimens of the 21 classes;—if you love Botany, you will not wait for your parents, and instructors to ask you to collect and study plants, but will seek every suitable opportunity for so doing. How delightful is the sight of a class of young pupils, engaged in examining flowers, each anxious to be the first to discover to what class and order they belong; and yet glad to have others succeed, where they find difficulties;—For true it is that a real and sincere love of knowledge, serves to render the disposition more amiable;—and it is for this purpose, and for the sake of leading your hearts to commune with your Maker by rendering you familiar with His works, that the friend who has laboured to prepare this book, is so anxious that you may learn to read and admire the great volume of nature, of which God is the Author.

595. What is said of the Pond Lilies?

596. Give an account of the Tea plant.

597. Why is the person who wrote this book, anxious that young persons should study the works of God?

EXERCISES IN PRACTICAL BOTANY

The following descriptions of Genera and Species have been selected from "Familiar Lectures on Botany," for the purpose of furnishing to the Beginner a series of Practical Exercises. Care has been taken to introduce such plants as Teachers can easily procure from the gardens and fields for their classes and which are the most simple for analysis.

DIRECTIONS FOR PRONOUNCING THE NAMES OF PLANTS.

BOTANICAL names of plants are formed according to the analogies of the ancient languages, chiefly the Latin. Some of the most common terminations of names of Genera and Species are *a*, *um*, *us*, and *is*; for example, the generic names, GERARDIA, TRIFOLIUM, PRUNUS, and IRIS; and the specific names *virginica*, *candidum*, *blandus*, and *officinalis*. A great proportion of Botanical names terminate in *a*, in which case it has the sound of *a* in father, as *Rosa*, *Viola*, &c.

The letter *e* at the end of a word is always to be sounded for example, *Anemone*, pronounced *anem'-o-ne*.

The *e* is long before *s* when it ends a word, as *Bicorn' nes* pronounced *Bicorn' nes*.

In words that end in *ides*, the *i* is long, as in *Hesper' ides*.

The vowels *ae* and *oe*, are often used as diphthongs, and then have the sound of *e*, as *Hepatica*, pronounced *Hepat'-i-ce*, and *Di-acia*, pronounced *Di-e-cia*.

C and *g*, as in English, are soft before *e*, *i*, and *y*, and hard before *a*, *o*, and *u*. The soft sound of *c*, is like *s*, the hard sound like *k*. The soft sound of *g*, is like *j*, the hard sound like *g*, in the word *gave*; thus *Algae* is pronounced *Alje*. *Musci* is pronounced *Mussi*.

The letters *ch*, are hard like *k*, as in *Orchis*; pronounced *Or-kis*.

Explanation of Letters and Characters.

The letter *o*, when affixed to the specific description, stands for the Latin *omnibus locis*, in all places, meaning that the plant is common; *r* denotes that the colour of the flower is red. *p*. purple—*y*. yellow—*w*. white—*b*. blue—*g*. green—*Ap*. denotes that the flower blossoms in April—*M*. May—*J*. June—*Ju*. July—*Au*. August—*S*. September—*Oc*. October—*Var*. stands for *Variety*.