

NURSERIES OF HEAVEN WILD FLOWERS OF INDIA

By TORFRIDA

Illustrated by May Dart

"Look for me in the Nurseries of Heaven." FRANCIS THOMPSON (1859-1907)

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INTRODUCTION WILD FLOWERS

FLOWERS welcome us into the world, and are with us on every festive occasion during our lives, and finally shed their mantle of beauty over us when we die.

We give flowers to those we esteem, and we shower them on those we love. Few can live without them, and many a poor soul has preferred to spend his last mite on flowers rather than food. There is a belief that the vibrations from the colours of flowers strengthen the aura around us, and so bring us nearer to our goal of perfection. Whatever it may be, their fleeting beauty entrances us and we are sometimes spellbound at their amazing forms and colour, so that we are almost ready to worship flowers in mystified wonder. And as long as we can wonder about a thing, that thing can never bore us or cease to hold our attention.

The world has existed for millions of years, and yet Man's knowledge is still infinitesimal, and many mysteries of life still remain to be solved. In studying flowers, we are aware of this. We know that King Solomon wrote of flowers, and the Chaldeans, Babylonians and Egyptians studied them.

The Arabs appear to have understood that pollen from a date tree must be transferred to a date tree of another kind in order that the fruit may grow. Peas have been found buried in the houses of the Swiss Lake dwellers who lived in the "Bronze" Period, in the days before men are able to count the centuries.,

In 384 B.C. Aristotle wrote of plants, and in 300 B.C. Theophrates described five hundred plants and their uses for curing diseases; but one of the most interesting men was the old Roman, Pliny the Elder. He was a friend of the Emperors Nero and Titus, and his joy of work seemed indefatigable. His son tells us how his father worked before day-break and continued all day, only stopping when "he was actually in his bath!" No wonder he accomplished among many other books 160 volumes on "Naturalis Historia", and it is interesting to remember that he was drowned in the Bay of Castellaon August 24th A.D. 79 when, as Prefect of the Roman Fleet, he dashed off in a small boat to rescue his friends from the eruption of Vesuvius.

Later, in A.D. 1603, another man of Italy, Andreus Caesalpina, studied plants and began to classify them by their different kinds of fruits, but he probably developed some ideas from William Turner, an Englishman, who died in 1551. He has been called "The Father of English Botany "because of remarkable investigations which he made in plant life.

During those centuries, many European scientists contributed their ideas of classifying plants by modifications of the stem, by their distribution, or by their reproductive processes; but it was left to a Swede, Carl von Linai, to establish the classification of plants by their sexual systems. He lived from 1707 to 1778, and his name, Linnaeus, is connected with many plants and birds.

It was Charles Darwin who, during the nineteenth century, revolutionized the minds of men with his theory of the "origin of Species", and "the survival of the fittest". He examined the fossils of plants, and by taking special notice of their movements through the ages, he was able in this way to show how they have gradually moved from the northern Hemisphere southwards; so that nowadays more than two-thirds of the World's vegetation is to be found in the Tropics.

A pioneer of Indian Flora was Sir Joseph Dalton Hooker, who visited that country from 1847 to 1851. The queer ways of Englishmen were not so well understood in those days, and he, with his friend Dr. Campbell, were imprisoned by the Raja of Sikkim until an assurance could be given that they had no other evil intention than that of picking flowers!

The movement or migration of plants is slow, as the distribution is due to changes of soil, wind, and water. Seeds from the West Indies have been carried to the West Coast of Britain, and others from New Zealand have been picked up in the Channel Islands. Some plants are found all over the world, while others prefer their own environment. The Encyclopaedia Britannica of 1909 tells us that no daisies are found on the lawns in America, no blue-bells in the woods of Germany, and that foxgloves do not grow in Switzerland.

Whether men care to make a scientific study of plants or not, most men in their lives make a garden. We read of the first Botanical Garden in Europe at Padua in 1545, and later,, one was made at Oxford in 1632. The famous garden at Kew was not made till 1730 under the management of Hooker.

In gardens we see the amazing transformations that have been made from wild flowers. As we discover the needs of each part of the plant and the proper treatment necessary for the roots, leaves and flowers to enable them to do their work well, we shall agree with Kipling that:

"A garden is not made By singing 'Oh how beautiful' And sitting in the shade."

Instead we will realise what magic wonders are still left for exploration, and how flowers might become even more glorious, were they cherished aright.

The flowers in this book are just a few of the common ones growing in the Nilgiris, and may be seen also in other parts of India.

I hope that you will find many others as beautiful, and like Blake:

"See a world in a grain of sand.

And Heaven in a Wild Flower."

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HYPERICUM MYSORENSE

Saint John's Wort or Word.

"How duly every morning she displays

Her open breast when Titan spreads his rays."

GEORGE WITHER.



FAMILY HYPERICACAE.

Roots: Fibrous.

Leaves: Opposite containing visible glands or pores.

Flowers: Regular, Petals five.

Stamens: Numerous in three or five bundles.

Ovary: Superior. Fruit: A Capsule.

Many Legends have grown around this flower of pure dazzling sunshine which takes its name from the great Titan God Hyperion, who was the Father of the Greek God of the Sun Apollo.

Are you insane? Then drink the red sap from the leaves and stalks of the St. John's Wort.

Will your wounds not heal? Take the juice again and put it on the wound and if the bleeding will not stop take more juice.

Are you bald? Then rise early on St. John's Morning and bathe your head with the dew and the hair will grow.

Do you live in the Isle of Man?

Then beware! Tread not on the St. John's Wort after sunset lest a fairy horseman arise and carry you to and fro, hither and thither till the sun rises. He will land you—anywhere.

Perhaps you live in Ireland? Then you will know that there the St. John's Wort is called The Rose of Sharon.

This lovely flower of the sun is believed to drive away all evil with its halos of gold which bloom on June 24th. It is a day preserved for the memory of Saint John the Baptist who brought the message of Christ's coming.

So will all evil be driven away by the words of the disciple St. John:

"Love one another."

OXALYS

Variabilis: Red
Pres Caprea: Yellow
Latifolia: Mauve.

"Held up their chalices of gold
To catch the sunshine and the dew"

JULIA C. R. DORR.



FAMILY OXALIDACEAE. (Wood sorrel family.)

Roots: Fibrous.

Leaves: Compound, trifoliate.

Flowers: Regular. Petals 5 twisted in bud.

Stamens: Ten.

Ovary: Superior. Fruit: A capsule.

These three species of Oxalys are the most common ones found in India. The mauve is seen as a weed all over the tea estates in the Nilgiris. The red species may not be noticed at all except in bright sunlight for at other times it shuts its twisted petals in the shade. The yellow variety, Cape Capre, takes its name from the Cape of Good Hope whence all the family came. They are akin to the dainty shy white wood sorrel hiding in the woods of England. The Oxalic acid derived from the roots is the oldest known in chemistry and it is the same acid which is found in garden rhubarb and beet leaves and some kinds of lichen and fungi.

The potassium salts are used in various ways in paper-making, ammonia, calico printing and dyeing, bleaching flax and straw. It may be a substitute for cream of tartar, or used to whiten leather, or remove ink.

It cleans brasses and is used in photography, and can reduce gold and silver to their pure state. Moreover when someone has taken the poisonous seeds of the Datura the fresh leaves of the oxalys is known to relieve the intoxication.

You may notice that the stamens and styles of the flowers are of different lengths. These were observed by Charles Darwin who made many experiments with these plants in cross fertilization.

No wonder the leaves close down at evening, like those of the Legumenoses family, glad that their work is done.

CUPHEA PINETORIUM

"For all were full of ancient dreams and dark designs on me."

MARY WEBB.



FAMILY LYTHRACAE.

Roots: Fibrous.

Leaves: Opposite, simple.

Flowers: Regular, solitary, petals crumpled in the bud.

Stamens: Twice as many as the petals.

Ovary: Superior. Fruit: A capsule.

It is an outcast from our gardens. It is an outcast among flowers, for its family name meaning blood tells of a wicked past.

The story is not difficult to imagine for the sticky nectar offered at a feast still exudes from the plant. Look at the leaves. The red splashes on them must be either wine or blood, spilt as the revellers rose hurriedly to escape, when they realised they had been betrayed. In their haste they left behind their lovely black velvet cloaks as they sailed away in the little boats awaiting them. Were they cold and what fate was in store for them?

The rest of the tale has vanished, only the Cuphea Pinetorium, growing near the gate, remains to remind us of those far-off days.

Then were men dressed in gorgeous apparel, drank goblets of rich red wine and joyously killed their enemies under cover of feast and song,

CENOTHERA TETRAPTERA

The Evening Primrose

"Fair flower that shunnest the glare of day
Yet lov'st to open meek and bold
To evening's hues of sober grey."
BERNARD BARTON.



FAMILY ONAGRACAE.

Roots: Fibrous.

Leaves: Opposite or Alternate.

Flowers: Regular petals.

Ovary: Inferior.

Fruit: A capsule containing many seeds.

The evening primrose was known to Theophastes who gave it a name 'onagra' meaning a wild animal. It is not easy to see his connection, but some there must be for Linnaeus changed it to 'cenothera' meaning 'a wild ass'.

'Tetraptera' alludes to the four lovely white petals, which hang drab and forlorn in the day time and scarcely noticed, as they grow on any poor soil in the Nilgiris, beside our path.

But when the evening comes, when the shadows of the gum trees grow long and clouds display their glorious colours in the west, then the primrose opens and the dull clothes of the day become the beautiful soft white robes of the evening.

So regularly does it spread its petals that it is known to the 'Todas' as the 6 o'clock flower! They are an old Indian tribe of the Nilgiris and. when their newly wed go down to the forest to plight their troth beside the sacred Kiaz tree, they know as they linger to love, that when they see the four winged primrose open, it is time to go home.

On seeing it in the hushed silence of the evening it is easy to believe that angels are near.

BIDENS PILOSA-The Bur-Marigold BIDENS HUMILIS-The Humble Marigold

"An intermingling of Heaven's pomp is spread On ground which British Shepherds tread."

WORDSWORTH.



FAMILY COMPOSITE. (Daisy Family)

Roots: Fibrous.

Leaves: Alternate, or opposite usually simple.

Flowers: Clustered in dense heads, regular or irregular with five 'ray' petals or toothed 'strap' petals.

Stamens: Five.

Ovary: Inferior.

Fruit: One-seeded 'Achene,' often with fluffy hairs to sail on the wind.

There are two kinds of Bidens found in the Nilgiris. The yellow one known as the bur-marigold is found mostly round about Ootacamund while the white one grows on the other side of the hills near Kotagiri.

The name 'Bidens' describes the two tiny prongs or teeth on the fruit and means a 'fork for breaking clods'. Bidens is also an old name given to sheep which have two even rows of teeth top and bottom in comparison to the cow who chews her cud with teeth only on the lower jaw.

In olden times 'Bidenalis' was a spot where sheep were sacrificed to appease the angry god who had struck the earth with his lightning flashes. The spot was held sacred and railed off.

Afterwards the hoes of the bidens smoothed the charred earth and these flowers grew over the ugly scar.

ANTENNARIA DIOICA Everlasting

"And the cherubic host in thousand quires
Touch their immortal harps of golden wires
Singing everlastingly,"

MILTON.



FAMILY COMPOSITE. (Daisy family)

Roots: Fibrous.

Leaves: Alternate or opposite, usually simple.

Flowers: Clustered in dense head regular or irregular with 5 'ray' petals or numerous toothed 'strap' petals.

Stamens: Five.

Ovary: Inferior.

Fruit: One-seeded 'Achene' often with fluffy hairs to sail on the wind.

Halos of gold and silver stare at us from the dusty high way. Stars of gold and silver gleam at us through the misty rain.

They are just the 'Everlastings' and because they are always there we heed them but little and hardly even wonder how it is that they can last for so long. So long, that if we bring them into the house we are forced to throw them away, only because they are dusty, not because they are faded.

No evaporation can take place on the stiff petals which look as if they had been painted with cellulose.

Their name antennaria describes the fluffy hairs of the seeds to be as fine as a butterfly's antennae. Watch them float silently to earth like fairy parachutes.

The homely everlasting has earned many childlike happy nicknames such as—' Cats-ears, pussy-toes, and Ladies Tobacco.'

What fun is to be had with the everlastings! Do not scorn them, or let familiarity breed contempt!

EXACUM BICOLORBlue and White Exacum

"Like the passing light upon the sea"

MARY WEBB.



FAMILY GENIANACEAE

Roots: Fibrous.

Leaves: Opposite, simple.

Flowers: Regular petals usually twisted in the bud.

Stamens: Four—Five.

Ovary: Superior.

Fruit: A capsule.

It is easy to understand the meaning of the name of this flower by looking at its four-sided stalk; its upright carriage and its 'Exact' proportions. 'Bi' describes the 'two' colours of the petals.

The Exacum belongs to the same family as the Giant Blue Gentian, which is very like it, but has deep violet blue flowers. The tiny blue gentian found on the open down lands less than an inch high is akin to these. Gentians are found up to 16,000 ft. in the Himalayas and grow profusely in Switzerland and the Tyrol. All are blue except one red species found only in the Andes.

The family was given its name by Pliny in memory of Gentius, a King of Illyria in 180-167 B.C. who discovered the medical value of the plant.

During the middle ages it was used to cure diseases and counteract poisons, and in 1552 Trajus mentions that the porous roots of the gentians were useful in surgery.

The roots also contain colouring matter, found in alcoholic drinks in Germany and Switzerland.

So the gentian mends our sick bodies, cheers us when sad, while the beauty of the flowers wafts our minds to peaceful days full of sunshine when we can watch the deep blue sea with its white topped waves surge for ever up the shore.

CYNOGLOSSUM FURCATUM Hounds Tongue

"From the heart of this fountain of delight wells up some bitter taste to choke them even among the flowers.

LECRATIUS.



FAMILY BORAGINACAE.

Roots: Fibrous.

Leaves: Simple with rough hairs.

Flowers: Regular. Stamens: Five.

Ovary: Superior.

Fruit: One seeded nutlets with hooked spines.

Most of us know the story of the "Forget-Me-Not", of a youth who when drowning, plucked at a weed, growing on the bank, and casting it to his beloved dithering on the shore, cried as he sank "Forget-Me-Not".

The Cynoglossum reminds us of a forget-me-not at first sight, but few grow wild outside Europe. This species has the ugly English name of Hounds-Tongue, which is supposed to describe the shape and rough texture of the leaves.

As a member of the Borage Family it can proudly boast to have been known by Theophates who noticed the way the flowers and leaves turned to face the sun.

Pliny also was interested and discovered that the plants contained potassium and calcium and that the juice of its leaves could remove warts.

The bitter juice of the Cynoglossum keeps harmful insects at bay.

In France this bitterness of the Borage added to the flavour of their "Claret Cup".

So let us drink "when the Hounds of spring are on winter's traces".

SATYIUM NEILGHERRENSIS

Twin Spur Orchid

'In the marsh pink orchid faces With their coy and dainty graces Lure us to their hiding places.'

SARAH F. DAVIES.

FAMILY ORCHIDACAE.

Roots: Tuberous.

Leaves: Simple sheathing. Parallel veins. Flowers: Irregular, generally in spikes.

Ovary: Inferior. Fruit: A capsule.

There is something very exciting about finding an orchid, whether it is a ground orchid or one that belongs to the species that have seeds so light that they are carried by the wind to make a home on the branches of trees.

Orchids are especially interesting to the botanist for every species has a different arrangement of petals, stamens and stigma in order that only the right insect may reach the treasured honey inside the long horn or "sac" at the back of the flower.

There are some orchids that only bloom after years of patient waiting and when they do, the colour, shape and scent is exquisite, so that an atmosphere of worship, almost adoration has grown around them.

Since the last century the rare and beautiful orchid has been used as a token of love, for it can express those words, so difficult to say—a song of love of which poets sing.

So—when our words fail us—let us find an orchid to give to our Beloved.

DESMODIUM SCALPE

"Pale mournful flower that hidest in the shade Mid dewy damps and murky glade."

CATHARINE BEECHER.

FAMILY PAPILIONACAE

Roots: Fibrous.

Leaves: Compound.

Flowers: Irregular petals 5 forming 1 'standard' 2 'wings' and a 'Keel' of 2 petals locked together in a boat shape.

Stamens: Ten.

Ovary: Superior.

Fruit: A pod with seeds attached to one side only.

Long ago, the people of Scandinavia believed that little black imps worked for the fairies in secret workshops in the depths of the forest. I believe that traces of these workshops can be seen in the flame coloured Desmodium flower, who so shyly hangs her solitary head in the shady parts of the wood.

Do not the long silvery hairs on the leaves make a pattern of a lovely carpet?

Even the name 'Desmodium' means that the pod is like a 'chain' and if you peep inside the 'standard' petal there is the mark of a tiny crimson horse shoe.

Did the Black imps make them for Tikkity Boo? Listen!

You may hear him galloping through the forest on his white horse clad with these crimson shoes.

I believe he is bringing you 'good luck'.

CYANOTIS PILOSA

"Fairies black grey green and white
You moonshine revellers and shades of night"
SHAKESPEARE.

FAMILY COMMELINACEAE

Roots: Fibrous.

Leaves: Alternate simple sheathing. Parallel veins.

Flowers: Irregular, mostly petals 3. Stamens: Six (2-3 Sterile) Blue

Ovary: Superior. Fruit: A capsule.

On the paths and on the grassland, Fluffy balls of fairy light. Flowers gleam like fallen star-dust, Making torches for the night.

When the world is quietly sleeping Then the fairies come and dance Tripping gaily in the moonlight Leave their footprints on the grass.

When the clouds are dark and heavy When no moon is in the sky Fairies take their star-flower torches Homeward happily to fly.

Swishing past you in the darkness Hear the fairies on the wing Watch the magic Cyanotis Waiting by the fairy ring.



L.T.R.

ARGYREIA HIRSUTA The silvery haired Convolvulus

"Nor war, nor battle sound Was heard the bailie round,

The idle spear and shield were high uphung."

MILTON.



FAMILY CONVOLVULACEAE.

Roots: Fibrous.

Leaves: Alternate simple.

Flowers: Regular often twisted in the bud.

Stamens: Pour to five.

Ovary: Superior. Fruit: A capsule.

The rain is casting gloom everywhere; dark clouds ride the heavens and cast their despondent shadows on the Earth. Splash—splash—drip—d—r—i—p—Will it ever end?

Listen—Look—Cheer up for the trumpet flowers of the convolvulus herald the good news that the sun will shine.

They can be seen clambering over the dark shrubs of the roadside. Their leaves, glistening underneath with long 'down', are like the silver shields carried by the picked warriors of Alexander the Great. These 'Argyraspides' of Macedonia bring their spears to guard the hidden treasure in the heart of the flower.

All Hail! The warriors of the convolvulus will soon disperse the gloom and win a victory for the Sun.

SOLANUM SISYMBRIIFOLIUM The Prickly Tomato

"Where is that wight
For whose sake Troye town
Withstood the Greeks till ten years fight
Had razed their walls adown?"

ANON.



FAMILY SOLANACEAE (Nightshade Family)

Roots: Fibrous.

Leaves: Alternate.

Flowers: Nearly regular.

Stamens: Five.

Ovary: Superior.

Fruit: A berry or capsule.

Like Helen of Troy, adorned in lovely raiment's of white and blue, the prickly Tomato fruit and flower are fiercely guarded with long yellow thorns on leaves and stalks.

It is a member of the enormous Solanaceae family and has the potato, brinjal and tomato for its brothers as well as the deadly nightshade, and the datura, whose seeds are a deadly poison, but whose leaves are sometimes used to cure hydrophobia.

It is said to be 'Sacred to Venus' so this may have been the golden apple thrown by Eris the goddess of Strife and Discord. She had not been invited to the wedding feast of Peleus and Thetis. As she flung the apple "to the fairest" of the fair did she realise that her jealousy would start the Siege of Troy which lasted ten years?

Paris gave the prize to Venus and quickly sailed with her to Sparta far from the envious eyes of other beautiful women.

But in Sparta Paris fell a victim again. The beautiful wife of King Menelaus, Helen, captivated his heart.

Paris carried her back to Troy, then Menelaus summoned his army to fetch her back, and so began the Trojan War.

Many gallant warriors were killed, many brave women were bereaved and at last, by the cunning strategy of the 'wooden horse' the Greeks won the war, while Helen looked on protected with swords and spears.

CALCEOLARIA MEXICANS Ladies Slipper Flower

"Who'll walk the fields with us to town
—Along the pale green hazel path
—Of lady's smock and lady's slipper."

MARY WEBB.



FAMILY SCROPHULARIACEAE.

Roots: Fibrous.

Leaves: Opposite or alternate simple.

Flowers: Irregular. Petals five united often lipped.

Stamens: 2 or 4 in 2 pairs or 5.

Ovary: Superior. Fruit: A capsule.

The Scrophulariaceae, or fig-wort family, earned its Latin name because it was supposed to be used as a remedy for scurvy which is a name given to a scrophulous condition of persons who suffer from a lack of vegetables.

This disease particularly afflicted sailors in the olden days who for many months endured terrible conditions on their ships. Their foul smelling breath, their bleeding gums and their haggard faces, the sores, swellings and ulcers were quickly remedied when fresh food was obtained on shore. This was so noticeable that lime-juice has been ordered in the Navy since 1795 and the better conditions, insisted upon by the Board of Trade in 1865, have made the men of the Merchant Navy as fit as any in the world.

But where are the lady's slippers you will ask? Open the yellow bag and there you will see a tiny shoe with its pair of laces.

They were brought from Peru by a bold Buccaneer who feared his lady wandering in his absence, and to make sure that she could not venture far, he brought her little lemon shoe-bag with him.

But it looks as though the beautiful women of India captivated his heart and stole his lady's shoes, for the shoe-bags of the Calceolaria are now found in many variegated colours in many lands.

STROBILANTHES KUNTHIANUS

"Once more the heavenly power
Makes all things new
And domes the red ploughed hills
With loving blue."

TENNYSON.



FAMILY ACANTHACEAE.

Roots: Fibrous.

Leaves: Opposite simple,

Flowers: Irregular mostly, petals, three.

Stamens: Six with 2 or 3 sometimes, sterile, blue.

Ovary: Superior. Fruit: A capsule.

Down from the Himalayas came the northern tribes of India to settle in the south and among the food for their cattle, donkeys and goats were the seeds of the Strobilanthes flower. They grow only on the hills where the nights are cold and they seem to love a long-long sleep. They wake up every 5, 8, 9 or 12 years according to the species, but when they do spring to life what a glory they bring. It is as if some magician had waved his wand to wake the sleeping beauty.

The flower is not particularly lovely and has a queer heavy scent. The rather ugly name means a 'twisted cone' which is seen in the formation of the flower head, while the Austrian Botanist, Kunthianus, could not resist adding his name to so mystical a plant.

The family name of Acanthus means 'thorn or bear's breech' in Greek. In their architecture too the leaves of the Acanthus were used by Callimachus about 540 B.C., to decorate the capitals of Corinthian Columns, and by that name they are described to this day.

If you are lucky enough to see the Strobilanthes transforming the hills for miles and miles with a blue mist, turning the world into a fairyland of joy, it is a sight you will never forget.

What long thoughts these flowers arouse!

Where will you be? What will you be? Five, seven, nine, twelve years hence?

And what will be the thoughts of the Sleeping Beauty when she awakes to see the world 'next time?'

NILGIRI LILY

The lilies say "Behold how we preach
Without words of Purity."

CHRISTINA J. ROSETTI.



.FAMILY LILIACEAE

Roots: Rhizomes or bulbs.

Leaves: Grow from the ground long parallel veins.

Flowers: Regular 6 parts.

Stamens: Six.

Ovary: Superior.

Fruit: Three chambered capsule or berry.

Who would believe that the beautiful white lilies which nod to us from the damp banks of the Nilgiris are sisters to the homely onion and the nasty smelling garlic!

They seem familiar for since our childhood we have seen lilies like these in the pictures of the Madonna by the old Master Painters. They were used as a symbol of purity all down the ages. The Greeks believed that lilies sprang from the milk of Juno who was the wife of Jupiter and Queen of the goddesses. Iris, the Rainbow, was her messenger.

The hills in Syria are covered in Spring with lovely red anemones and some think that it was to these Christ pointed when He said—

"Consider the lilies of the field."

But of course He meant all beautiful flowers which appear not to toil or spin or worry about 'tomorrow', yet are 'arrayed in all their glory.'

The law wisely protects the Nilgiri lily and anyone can be fined for stealing their roots.

So let us leave the lilies to bring their message of purity in the centuries to come.

GLORIOSA SUPERBA

"Shone like a meteor streaming to the Wind."

MILTON.



FAMILY LILIACEAE

Roots: Rhizomes or bulbs.

Leaves: rown from the ground long parallel veins.

Flowers: Regular—6 parts.

Stamens: Six.

Ovary: Superior.

Fruit: Three chambered capsule, or berry.

A legend tells of an old miser who lived in India and refused to part with his riches and precious gems that he had collected.

King Solomon begged for them to decorate the Temple he was building at Jerusalem, but the miser declined.

Eventually, when he was a very old man, his beloved daughter fell sick, and when she was near to death, he realised that he would gladly part with some of his riches, and offered a reward to anyone who could cure her.

As he stole out at dead of night to collect the treasures where they lay buried he fell and broke his leg. He was unable to reach the spot, and died before his daughter was cured.

The gems lay buried and forgotten underground, but years after there sprang up the most beautiful plant with petals and leaves the colours of the most priceless gems.

On the plant lived a praying mantis who was verily the re-incarnated spirit of the old miser.

He had learnt his lesson.

From his buried treasures grew a wealth of eternal beauty.

COMMELINA CLAVATA

"Continuous as the stars that shine And twinkle on the Milky Way."

WORDSWORTH.



FAMILY COMMELINACEAE

Roots: Fibrous.

Leaves: Alternate simple sheathing with parallel veins,

Flowers: Irregular mostly petals 3,

Stamens: Six (2-3 sometimes sterile) Blue.

Ovary: Superior. Fruit: A capsule.

The commelina will always be noticed for its flowers are such a wonderful colour!

It seems as if they have dropped from the sky on a perfect day; a day when one can look deeper and deeper and further and yet further into the eternal vast blue of Heaven.

A story tells us that the stars of the Milky Way are flowers strewn on the path for children, on their way to Heaven.

If so, we may guess how this flower of the sky came to earth.

It was cast from the path of the Milky Way by a child who heard his mother crying on earth.

"Mother don't cry for Me", he pleaded as he threw the lovely flower down to her.

She heard his voice and the echo of her tears, and she understood the message of the Flower of Heavenly Blue.

Treasuring it she determined that she would weep no longer. She must let no sorrow darken the sunlit path of those happy children scampering to Heaven.

SIMPLE BOTANY

Plants have been divided into many large classes, but among the flowering ones are 2 main divisions.

Dicotyledons and Monocotyledons.

The chief difference lies in the leaves and seeds.

In DICOTYLEDONS the leaves have a midrib from which veins spread out in all directions becoming finer and finer.

The seeds split into 2 parts, when the outer skin is removed, and on sprouting 2 simple leaves grow prior to the 'real' leaves of the plant.

In MONOCOTYLEDONS the leaves are simple with no midrib. Instead parallel veins run up a slender leaf which usually grows direct from the ground. Their seeds are in one piece, like a grain of wheat, and the real leaf sprouts straightaway.

After these two big divisions are the large ORDERS or FAMILIES which are again split up into GENERA and SPECIES.

Each family is alike in the main parts of the plant, while the members of each genera are slightly different. The species differ according to the climate and position of the plant.

It has been considered more helpful in this book, where so few flowers can be described, to point out the distinctions of the family, to which the flower belongs, so that those interested may be able to classify for themselves others of the same family.

ROOTS BULBS or RHIZOMES are not true roots, but underground buds or stems, their real roots being the thread-like hairs growing at the bottom.

FIBROUS ROOTS are a collection of fine threads, capable of spreading far through the soil to drink water.

Sometimes all the threads are massed together like the potato and are then called 'TUBEROUS.'

LEAVES are either SIMPLE or COMPOUND.

A SIMPLE leaf may be any shape, but it has one main rib with fine veins spreading out from it, while a COM-POUND leaf has many smaller ribs springing from the main one; and they may grow again lesser ribs. When there are many leaflets a leaf is called 'Pinnate' but if it has only 3 leaflets it is known as 'Trifoliate.'

The EDGE OF A LEAF may be either smooth, or have a saw-like or tooth edge, or be deeply cut into lobes, so that it almost appears 'compound.'

The STALKS of leaves, *(petioles)* also vary considerably, and BRACTS which sometimes grow like leaves on these stalks, must not be confused with real leaves.

FLOWERS are composed of five main parts:-

- (1) The CALYX consists of a green covering for the flower when it is in bud. Sometimes this covering forms a cup, or more often it is divided into separate lobes or SEPALS. They may occasionally assume the appearance of petals.
- (2) The COROLLA is the brightly coloured decorative part of the flower. It encloses the sexual organs, and in order to promote reproduction attracts and guides insects with colour, lines and marks.

The petals may be joined together forming a bell, or be trumpet shaped, divided into 4 or 5 "REGULAR" or more lobes.

When these parts are so formed as to appear 'two lipped' or as in the pea flowers, have a 'standard petal', 2 wings 'a keel', it is called "IRREGULAR."

(3) STAMENS are the male part of a flower and consist of a filament and ANTHA containing pollen which fertilizes the pistil when it is ready.

- (4) The PISTIL being the female counterpart consists of an OVARY, STYLE and STIGMA. The last is often a sticky knob the size of a pin's head.
- (5) When fertilized the pollen travels down to the "Ovary" which contains small unripe ovules. These then ripen into Seeds. The position of the ovary on a plant is one method of classification. Those that grow above the calyx belong to the 'SUPERIOR' group while those growing below are described as 'INFERIOR.'

THE SEED BOX takes many forms. The dry 'box' divided into compartments is a 'capsule', or the seeds may be in a pod or fruit. These in turn have various methods of spreading their seeds. The capsule usually explodes while the fruit is carted away inside animals. The pod will burst—or seeds grow a wing to carry them away with the wind, while others display a parachute of fluff, the prey to every passing puff.

The Daisy or Compositae family differs from most flowers for they like to herd together in one head. We follow their example when we live in flats inside one block of buildings.

THE END