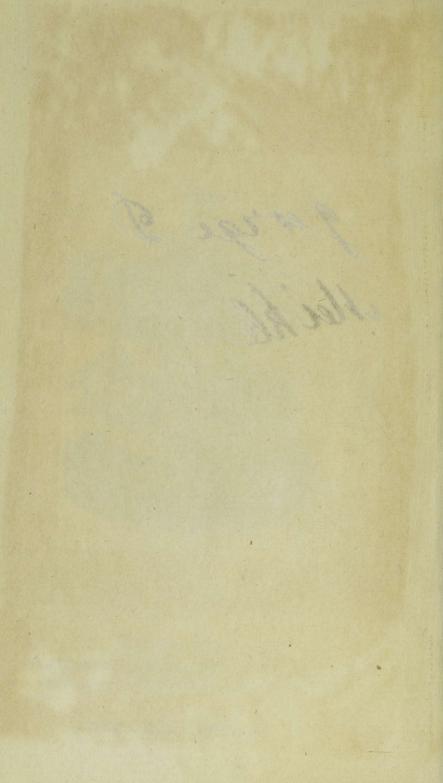


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### FRONTISPIE CE.



Eva in the Highland Cottage.





# EVA & HER PLAYFELLOWS.

A Book of Entertainment.

BY

C. M. SMITH.

LONDON:
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## PREFACE.

Some time ago a little girl exclaimed as she threw down a book on botany which she had been looking at, and trying without much success to understand: "O, I wish the flowers could tell their own story, and that it was more amusing to read about them. There are stories of animals and birds, why not of flowers?" The child's wish suggested this little work, and if it should prove as interesting and amusing to children as a similar one on birds was to the authoress, she will be repaid for her labour.

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## ERRATA.

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# THE BUTTERCUP & CROWFOOT, &c.

### BANUNCULUS TRIBE.

"Then, bright Kingcups, wouldst thou pull Till thy tiny hands were full."—S. R.

Eva (stringing daisies and buttercups on a thread). "There now, I have nearly done; and Rosie will look like a queen when I put this beautiful chain on her neck. It is much prettier than Mamma's gold one, and I can make a new one any day. How bright the Buttercups shine, quite like golden cups."

She sings—

"Buttercups and Daisies—
Oh! the pretty flowers,
Coming ere the spring-time,
To tell of sunny hours.
While the trees are leafless—
While the fields are bare,
Buttercups and Daisies
Spring up here and there.

#### THE BUTTERCUP

"Ere the Snowdrop peepeth—
Ere the Crocus bold—
Ere the early Primrose
Opes its paly gold,
Somewhere on a sunny bank
Buttercups are bright;
Somewhere 'mong the frozen grass
Peeps the Daisy white."

M. HOWITT.

Buttercup. "Yes, we come up as soon as the sky is clear from winter storms, and the sun shines warm; and we do so enjoy looking up into the blue heaven, and drinking down the bright rays into our cups. I assure you we are very happy on a day like this, standing in the fresh green grass, and having the warmth and brightness of the sun poured down on us. He looks at us so lovingly from his throne up in the sky, and we are never tired of looking up at him."

Eva. "But are not you very miserable at night, or when it rains, and the sky is dark?"

But. "We do not like it so well, certainly; but we fold our leaves to-

gether quite close, and bend our heads, and wait patiently till it is bright again. If you come out by and bye, and look at us, you will see we are all asleep, with our golden cups shut, and so we stay till the sun wakes us up again."

Eva. "That is very curious. So you go to sleep at night as I do, only a great deal earlier."

But. "And we wake much earlier, too. While you are still asleep in your little bed, we have opened our leaves, and hold out our cups to bid the sun good morning."

Eva. "I wake very early, too, in summer; and I should like to come out and see how pretty all the flowers look, and hear the birds sing, but nurse bids me be quiet till it is time to get up. But if you shut up your cups in the dark rainy days, you must sleep all day sometimes; do you like that?"

But. "Not much; we are far merrier in the sunshine. But we know the rain

does us a great deal of good, and without it we should not grow, so we are content, and do not mind now and then a dull day. We shall be better, and look finer for it afterwards."

Eva. "How does the rain make you grow?—do you drink it?"

But. "Yes; we suck it up with our roots when it trickles down into the ground. I cannot show my root, for I am growing still, and it is firmly fixed under the earth; but I see one of us which the farmer dug up this morning is lying there, if you will fetch it, I will show you about our roots."

(Eva fetches the dead plant, and looks at the root.)

Bur. "There, you see this root is long, and has many brown fibres, like threads almost, branching out from it. These fibres have a tiny hole at the end of each of them, and through this the water is sucked up into the stalk, and goes to feed the buds, leaves, and flowers.

If you break off the stem, you may see, if your eyes are sharp, a very small hollow tube in the centre, through which the water rises."

Eva. "I see; it is very, very small though; you can't drink much at a time, Mrs. Buttercup."

But. "Nor do we want much; indeed, we are content with very little food, and can live in dry waste places very well. I, myself, like a meadow best, like this, where there is a good soil mixed with the common poor earth, and that is the reason I am called the Meadow Buttercup. And though, in general, we can all live, and do pretty well in barren lands, yet we are finer, and grow more freely in cultivated soil."

Eva. "Are not all Buttercups alike? I thought they were, but I see this dead

flower is not quite like you."

But. "Oh! no; we are rather a large family, and there is a great deal of difference between some of us. Now look closely at me; you see my stalks are rounded, with a few hairs on them, and my leaves have three divisions, which is called being three-cleft; each division is cut again into deep clefts, those of the upper leaves are very slender. I advise you not to put a leaf of mine into your mouth, for you would perhaps blister it. I am spared by the sheep and cows, unless they are very hungry, for I blister even their mouths with my acrid juice."

Eva. "What are these tiny green leaves underneath your golden ones, which stand round in a circle?"

But. "They are my sepals; and when the young bud first comes out, they shut round it, and keep it from the wet and the cold, like a cloak. When the flower is fully grown, they still fold over my petals when I shut up, though they cannot cover them entirely."

Eva. "Your yellow leaves, or petals as you call them, are very beautiful; they are so polished inside, and shine

brighter than gold. I wonder you were

not called Golden Cup."

But. "So I was in old times; and I have had many other names besides. I was called Gold Ball, and Mary-bud once, but those names are nearly forgotten."

Eva. "Mamma sings about Marybuds, I heard her the other day. This is the song—

'And winking Mary-buds begin
To ope their golden eyes;
With everything that pretty bin—
My lady sweet arise.'
SHAKESPEARE.

I did not know that was said of Buttercups. I suppose you are called Buttercups because you are the colour of some butter, for you say that the cows do not eat you, as I always thought they did."

But. "I daresay we were called Buttercups because people thought we made the butter yellow, but that was a mistake, and the dairy-maid is always sorry when the cows eat us, because their milk does not taste nice then. After we have been cut

down, and mixed with the hay, we do not hurt cattle, and they eat our dried leaves and stalks with relish."

Eva. "What are those little threads with tiny knobs on them, which fill up the middle of your cup?"

But. "They are my stamens, and if you pull off the petals round them, you will see how they spring from the receptacle as it is called, in which also the petals are fixed; their use is to help to form the seed from which new plants will spring."

Eva. "I have pulled a flower that was withering to pieces, it is a pity to spoil a pretty one. I see the stamens are fastened to this green little bed, but what is the rough greenish thing in the middle of them?"

But. "That is what contains the seed, and is called the ovary. If you can find a Buttercup which has lost all its petals and stamens, and has only a green knob on the stalk, I can show you the seeds

better." (Eva looks about for some time,

and then brings it.)

But. "You see that in this little head are many small divisions, in these the seed lies, and when it is ripe it will fall into the ground, and produce fresh plants. Each of these little divisions is called a carpel."

Eva. "You said that you were of a large family, and that there was a good deal of difference between you and some other Buttercups: I should like to see some of your relations, and find out for myself."

But. "You can easily find some branches of our family in this meadow, for I see two or three not far off. And first, you must let me introduce you to a very near cousin of mine, Ranunculus Bulbosus."

EVA. "What a long name, I am sure I shall not often talk of that flower."

But. "It has another, easier for you to remember, little English girl; the Bulbous-rooted Crowfoot. I showed you a root like mine just now, but this Butter-

cup has a different one, it is round and thick like a small turnip. The taste is like mine, acrid, and though I have heard that it has been eaten by men, I think they must have been very hungry to make them like it. Perhaps they boiled the roots, and so took away their unpleasant taste. But I wish the farmers would not send those greedy animals, the pigs, in amongst us, for they disturb us sadly, and my cousin has unfortunately great attractions for them."

Eva. "I see the stalk is not like yours, smooth round."

But. "No, it is channelled, and the leaves are cut into three-stalked leaflets. You will see, too, that the sepals are turned back over the stalk, while mine support the petals, and by this you may easily know the Ranunculus Bulbosus. Now if you look beside that pool below there, you will find another near relative of mine."

Eva. "Is this it? How much smaller

its flowers are, it is not nearly so like you as the Bulbous Crowfoot."

But. "We are considered very unlike, but yet it has the same kind of leaf, only smooth and not hairy, and the stalk is of the same growth, but very juicy and hollow. Of course, as it prefers pools, you may suppose it is of a thirsty nature, and that hollow stalk serves it to drink much more water than I am contented with. The flowers are like us, too, though small, and the carpels, instead of being set in a round shape, are oblong, and large in comparison with the flower: it is called the Celery-leaved Crowfoot."

EVA. "I suppose it does not taste nicer

than your family in general."

But. "It is even worse, being so acrid that it will raise blisters, and cause wounds. I am sorry to say any harm of my relative, but he is sometimes, though unintentionally, rather mischievous, and people must not trust him too far. A short time ago, a little girl was playing with a good many

of us, and making wreaths and garlands for herself. At last she grew tired, and lay down to sleep, with a wreath, in which she had put some of the Celery-leaved Crowfoot, wound round her head and neck. When she woke, she was in a good deal of pain, from the inflammation and stinging caused by this plant, and her cheeks and neck looked very red. I wanted to tell her to take off her garlands, but her sister came to fetch her just then, and I saw the wreaths thrown away. Poor little thing, she was crying with the pain, for she had rubbed her face and neck till they were tender, to get rid of the stinging feel."

Eva. "I shall take care how I wear garlands of the Crowfoot then."

But. "Yet the leaves of this very plant, when boiled, are eaten by the shepherds in Morlachia."

Eva. "When I went down to the water just now to fetch this flower, I saw what looked like a white Crowfoot float-

ing on the little stream below. Can that be one of your family? It is exceedingly pretty. I would try to get one, but they are too far from the bank, and my little dog is not so clever as Cowper's 'Beau,' that Mamma told me about; I don't think he would understand fetching me one."

Bur. "Yes; I know what you mean for it so happened that I made acquaintance with that flower only yesterday. Two gentlemen had gathered some out of the river, and were sitting near me, looking at them, and talking about them, and I listened, for I wanted to hear what they had to say about that variety of our species. I expected that, as Ranunculus Aquatilis grows in the water, it would be of a more sharp and acrid temper than even Ranunculus Sceleratus, as that is usually the case with such plants; but, I was surprised to learn that, on the contrary, it is very mild, and can be eaten freely by cattle, who are very fond of it.

One of the gentlemen said he was delighted to see its white blossoms again, they reminded him of the beautiful Avon, in which this elegant plant grows abundantly. I hope you admire its soft green leaves, each segment so delicately rounded, and its pure petals, with the golden stamens resting on them."

Eva. "I do indeed; and I am very glad it grows in our little river, as well as in the Avon. Now I want to ask you, are you any relation to a flower, which comes out earlier than you, and is almost gayer, looking like a bright star in the grass? I think it is called the Celandine."

But. "Oh! yes, we are of the same family, though not so nearly related as the Crowfoots I have been talking about, as you may discover by observing the difference of leaf, and of the shape of the petals. The Lesser Celandine has its leaves heart or kidney-shaped, and smooth; its sepals are only three instead of five, and its petals pointed and nine in

number. Only one flower comes on each stalk; but the plants grow often so thick on a sunny bank, that they dazzle one's eyes to look at them. Yes, I am quite willing to allow that Ranunculus Ficaria is more brilliant than myself, and it ought to be more welcome, since it is the first flower (sometimes even before the Daisy) which tells that spring is coming. Have you heard that a great poet chose it specially as his flower, and wrote on it some pretty lines? Listen, these are some of them.

'There's a flower that shall be mine, 'Tis the Lesser Celandine.

Ere a leaf is on a bush,
In the time before the thrush
Has a thought about her nest,
Thou wilt come with half a call,
Spreading out thy glossy breast
Like a careless prodigal;
Telling tales about the Sun,
When we've little warmth or none.

Soon as gentle breezes bring News of Winter's vanishing, And the children build their bowers,

Sticking kerchief-plots of mould All about with full blown flowers, Thick as sheep in shepherd's fold, With the proudest thou art there, Mantling in the tiny square.'"

WORDSWORTH.

Eva. "Those are very pretty indeed; I shall try to remember them. But can you tell me any more of your kin, they all seem very bright and gay?"

But. "I can perhaps another time, for there are many more of us. Perhaps however, now I have made you acquainted with a few, you may find out others for yourself. I will just tell you that another branch of our family are called Spearworts. You may distinguish them by their pointed leaves without stalks, growing up like spears from the main stem. There are two kinds of them, the Great and the Lesser, and both love bogs, and grow in marshy places. Like most of us, they have yellow flowers. If you should ever travel in foreign countries, you will find some of us there, too. On the Alps, high up in the mountain air, there is the white ivy-leaved Crowfoot, and by a frozen bay in the Arctic regions, Sir John Franklin found the Frigid Ranunculus."

Eva. "How glad he must have been to see one of your bright faces peeping at him in that cold dreary place! I think everybody must like you, you look so cheerful, though I cannot say you are of much use."

Bur. "I do not boast when I say, that our use was no doubt to look cheerful, and make people glad when they see us. If we do that, and bring happy thankful thoughts to any one, our work is done; and I think from what I have heard, that many have been cheered by us: many little children have spent happy and innocent hours with our gay blossoms. Little girl, if you always wear as bright a face, and have as contented and cheerful a look as we, you, too, will do your work well, and, like us, be loved. But remember, we look always up to the sky; we

gain our brightness from the sun; do you learn that lesson, too, or you will not be able to be bright and happy like us. And now I really must say good night, for I am getting very sleepy, and the sun is low."

Eva. "Good-night, dear Buttercup; I shall love you more than ever."

She takes up her flowers, and goes home softly singing—

"Welcome, yellow Buttercups,
Welcome, Daisies bright;
Ye are in my Spirit
Visioned, a delight!
Coming ere the spring-time
Of sunny hours to tell—
Speaking to our hearts of Him
Who doeth all things well."

M. HOWITT.

# THE POPPY.

Within the sunny harvest-fields
We'll gather flowers enow;
The Poppy red, the Marygold,
The Bugloss brightly blue.

Poppy. "Well, I really am glad that the sun has at last got behind that great oak, and cannot scorch us up any more. I thought, when first I came out some weeks ago, that I never could have enough of his rays to open my flowers, and warm me; but to-day I have had to stand in such a burning heat that I am quite faint, and cannot hold up my head any longer. Well, never mind, the dews will be falling soon, and when I have bathed in them a little, and sucked up a few drops to refresh myself, I shall

be well again, and able to open fresh buds to-morrow. What a good thing the sun is not always shining; I don't know what I should do if he did not go away at night, and leave us to fold our petals, and sleep! Ah! little girl, you look very hot, too. I am sure you must want to rest; do come and sit under this great oak tree in the shade. I have watched you gathering up the ears of corn for little Jessie Dove and her grandmother all this afternoon."

Eva. "Yes, I am very tired indeed; and, after all, I am afraid I have not added much to their bundle, it did not look so large as I expected."

Poppy. "Never mind, it did help them a little, and they were glad you came; it made them merrier, and they liked your wish to help them. But pray take care how you sit down, you are just going to crush a sister of mine."

EVA. "Oh! I did not see that. I must sit here on the root of the oak.

Nurse will be angry if I get my frock dirty, and she says you stain terribly. I don't think she likes you much, for she will not let me make a nosegay of your flowers."

Poppy. "I have heard many people speak against us, and I know we have many enemies, especially the farmers. They are always bent on rooting us up from their cornfields; and, indeed, I wonder that any of us managed to grow here, for, in the spring, a number of women and boys were set to root us all up, with many other plants, so as to leave the wheat alone in the field. However, a few, as you see, have managed to escape; and here, near the bank, as I do no one any harm, I have been allowed to grow. But in the field over the hedge, as I peeped one day through a little hole, I saw the farmer had been much kinder, and had let us, and many of our friends grow as we liked. The field was so gay with all manner of flowers, and so many

of our scarlet heads among them! If the wind does but blow this way soon, the seeds will come over here, and we shall have plenty of our family about us."

Eva. "Oh! Mr. Poppy, how can you be so mischievous! Those plants are all weeds, and hurt the corn, and I am sure I hope their seeds will not come over, and spoil this nice field. Papa says, the farmer who has that field is very lazy, and does all his neighbours mischief, by letting weeds grow, and send their seeds all over the land."

Poppy. "So you do not like to see our bright heads among the corn. I think they look very well, and I know some clever men who admire us very much, and say we are an ornament to the wheat. I heard a gentleman say so the other day, who was sitting under this very tree, and painting that view, as he called it: he painted some of us, too, in the corner of his picture."

Eva. "I think you very gay, and I like to see a few of you, and the blue corn flowers, but when you grow all over the field, I think you look very untidy; besides, your smell is nasty."

Poppy. "Well, we are not much thought of in this country, but in another part of the world whole fields of us are grown, and we are esteemed very valuable. Even in England one kind of us is grown, but I never saw it; and our rich colour, and graceful shape, is what wins admiration for us here."

Eva. "I have been rather hard on you, certainly; so, to make up, I will tell you what a lady wrote of you, and some other pretty flowers, which the farmers call weeds :-

POPPY. "Very good. You see some

<sup>&#</sup>x27;And we'll pause and gather a glorious wreath From the flowers that are sheltered the corn beneath: There are velvet Campions, both white and red, And Poppies, like morning glories spread, That flash and glance with their scarlet sheen, The bending ears of the wheat between. . . . "

people have taste enough to admire us. But I will whisper a secret to you, little maid; I don't think we are loved as many other flowers are, and perhaps it is because we are thought too flaunting and proud. We cannot help being gay, and holding up our heads a little, it is as we were made, and I don't believe we feel a bit prouder for it; but I must confess it is very ugly to see pride, and when a child comes along thinking himself very important, and vain of some smart dress, I wish he could feel how ridiculous he is, and learn to be like the flowers, which though far gayer than he, are simple and contented. We do not mind being thought ill of, but enjoy ourselves in any bit of waste land, and open our bright coloured flowers thankfully to the sun, whether men care for us or not."

Eva. "I want to see a little more about you, and learn your shape, and how you grow. Ah! your root is long and slender, with those little fibres com-

ing out from it which suck up the rain; and what a slender stalk you have, all thickly covered with fine hairs. I like the shape of your leaves, they are so

prettily cut out."

Poppy. "That is called being pinnatifid. You see they have one leaflet at the top, then two elegantly cut next to it, and two more below, all forming one leaf. But you must examine my flower if you wish to know our chief peculiarities."

EVA. "What is this greenish thing with dark rays on it, which stands in the

middle of your flower?"

POPPY. "That is my stigma standing as you see in the midst of a great number of black stamens. When my four scarlet petals fall off you will see more plainly the ovary containing the seeds, which is immediately beneath the stigma. There, look, on that stem is one from which the wind has just blown away the petals."

Eva. "I see the stamens also are

withered, and falling off, and here is the ovary left on the stalk. It looks like a funny little box with divisions up it, and a lid. I will open it. Oh! here are numbers of little tiny seeds fastened to the divisions, but it is all one cell, these partitions do not reach to the middle. How curious!"

Poppy. "When my seeds are ripe, this ovary becomes a brownish colour, and the seeds dark, and then it opens of itself, and the seeds scatter all round. Perhaps you never thought that the chief use of my gay petals is to protect this ovary, and guard the stigma and stamens while the seeds are forming?"

Eva. "Indeed! and do you shut up like the Buttercup, when it rains or is night?"

Poppy. "Yes; but I have only my petals to fold about me, when once I have fully opened, for my sepals, which guard me while a bud extremely well, fall off very soon. You may see them on

that young Poppy, which is just opening. There are two of them; and they keep the flower very snug and warm."

Eva. "I think they are just like the mantle which nurse folds about baby when he goes out. I wonder why you are called Poppy, it is a droll name, I think."

Poppy. "I believe it was because the seeds of our family were given in pap, to make people sleep: so the plant was called papa, and so perhaps came to be Poppy. But I have other names among country people, and am called Corn Rose, Redweed, and Cheese Bowl. I like the name of Corn Rose best; but I am generally known as the Poppy in English, and Papaver Rhæas in Latin."

Eva. "Have you any relations like the Buttercup?"

POPPY. "Yes, many; and you may find some not far off. If you are rested enough to go to that chalky bank, you will find Papaver Hybridum, the Round Rough-headed Poppy, which loves a chalky soil, and is rather particular where it grows, so that it is not so common as I am. And there in the corn is the P. Argemone, very nearly related to it."

Eva. "See, I have found them, and another besides, which I thought was one of your kind, but its capsules are longer.'

Poppy. "They are all three so much like me, that you might easily mistake them if you did not look closely. I can boast of having the richest colour, however, and my size is larger than either the Round Rough-headed, or the Long Rough Poppy. Their stamens, also, are less dark than mine. The third you have brought is the Long Smooth-headed Poppy."

EVA. "Did you not say that the seeds of some of your tribe were mixed in pap to make people sleep?"

Poppy. "Yes, P. Argemone is used for this purpose sometimes, and has the power of making people sleep, who eat its capsules, or even its leaves, as I have heard; but the real plant which is used in medicine, and called the Opium Poppy, is one, I confess, more beautiful than any of us, and grows in warm countries. I have heard it is of a white colour, the bottom of each petal marked with rich purple, the stigma and stamens green. Some few days ago two young ladies were sitting here, to rest under this oak, just after I had opened a little, and one of them took out a letter from her papa, who was in Egypt, and read it to her cousin. I could not help hearing it, but I did not understand anything, till she began to read about the Poppies there, and then I listened as much as I could. The letter said that there were whole fields (only think of that) planted with Poppies, and looking beautiful with all the white blossoms waving in the wind. The young lady said that she had seen such fields in Kent, and other parts of England, but I was quite astonished to think of Poppies being cultivated as carefully as the corn is

here, which we are hardly allowed to approach."

Eva. "That sounds very strange. But what can people want so much Poppy juice for? Surely they will go to sleep quite well without it. I am asleep in ten minutes after nurse takes away the candle, and sometimes I cannot keep awake if I want to do it."

Poppy. "You are a strong little girl, and ought to be thankful that you can go to sleep as we do at night, without any pain to keep you awake; but when people are ill, I have heard they cannot sleep, and then, as this gentleman who wrote the letter said, they are very glad to take our juice to make them do so."

Eva. "Do they eat the seeds, or the capsules? That would be a nasty medicine, I am sure."

Poppy. "No, the letter said that when the capsules are about half ripe incisions are made in them, and the juice thickens in the night, to a firm substance of a grey colour. This is scraped off, and made up into lozenges, with syrup from different fruits, and so it is sold as a sweetmeat in shops. The young lady who was reading the letter told her friend that she was very glad to know how the opium was made, for she had been ordered by the doctor to give some to her mother, who was ill, and restless at night. She spoke a good deal of the comfort the poor lady had received from the use of it, and how she could only sleep after taking it, because she was in so much pain always; and when I heard how patient and good she was under all her sufferings, I felt quite glad that one of us had power to soothe her."

Eva. "Yes, it is very good of God to make the plants give us so many useful things. We get bread, and vegetables, and nice fruit, which I like so much, and medicine, too, which is very good for sick people. That gentleman who wrote the letter must have liked to look at the fields

of Poppies, when he remembered the use they were to be to his poor wife."

Poppy. "We are all of us rather of a sleepy nature, and I myself am often drowsy, so that I confess I did not hear all that was written about these Poppies, being sleepy that afternoon. But though I have forgotten a good deal, I remember some verses that the young lady afterwards repeated to her friend, about the Opium Poppy, and you may like to hear them.

'But thou, whene'er we suffer
Ills we deserve too well,
O'er present woes and past,
With kindly zeal dost cast
Thy mild oblivious spell.

'To thee a power is given
That puts the Rose to shame;
For who her wreath hath worn,
Nor felt how sharp the thorn,
That guards her graceful stem?

'While e'en to him who wounds thee,
With much forgiveness thou
Dost yield a precious balm,
His weary frame to calm
In sickness or in woe.'"

Eva. "I shall like you all better, Mr. Poppy, now I know more about you; but

I think your foreign relations are more useful, and prettier than you."

POPPY. "Perhaps they are. I do not suppose people in this country would like to wear a wreath of our red flowers, but in India the natives adorn their heads sometimes with Poppy blossoms, when they amuse themselves with singing in their boats of an evening. Very likely, therefore, the flowers are larger and handsomer than ours here. I am not quite sure, however, that any of our family can claim to be real natives of England, we all may have come from foreign lands. However, we have now been long settled in this country, and like our home very much. Do you know that there is a cousin of mine, which loves the sea-shore, and grows on the sands very plentifully?\* He is as gay almost as I am

c 33

<sup>\*</sup> Not a Papaver but a Glaucium. There are three kinds of the Glaucium; the yellow horned, the scarlet horned, and the violet horned Poppy. The two latter are rare, and doubtful natives of England. All are distinguished by the sickle shape of their pods.

but of a different colour, being bright yellow."

Eva. "Oh yes, I remember such a Poppy quite well. When I was at Exmouth I was surprised to find flowers so near to the sea, and I gathered some and put them in my shell basket. Mamma told me they were called the Yellow Horned Poppy. The leaves were pale sea-green, folding stem, and very rough at the edge, but not slender or cut like yours, and the pod was like a sickle in shape. I liked to see it so much, and it did not seem to mind the rough dashing of the waves, or the spray falling on it, but always looked green, and as if it liked the roaring of the sea, and the salt water to its roots. I learned some lines about it, which I will tell you, though you do seem getting drowsy.

> 'The wild sea cliff, though rude it be, Is wreathed with many a flower, That blossoms there unscathed and free, Through storm and shower.

## TEACHING A USEFUL LESSON.

'There, bright as gems of fairy lore, Or Eastern poets' dream, The Horned Poppies gild the shore, With sunny gleam.'"

Poppy. "Thank you, little girl. And now it is really bed-time, the sun has quite gone down, and I feel the cool dews bathing my leaves, I must shut up close till the night is past. Goodbye, and think of us as contented flowers, who do not mind eing little cared for, and are glad io be able to comfort, or soothe anyone in pain. If you can learn to do the same, quietly and lovingly, not wishing for admiration, and content to be sometimes thought less of than you might like to be, but glad to be made a comfort to anyone, we shall not have talked in vain."

## THE WALL-FLOWER, CRESS, &c.

THE CRUCIFORM TRIBE.

Sweet wall-flower, sweet wall-flower!
Thou conjurest up to me
Full many a soft and sunny hour
Of boyhood's thoughtless glee,
When joy from out the daisies grew
In woodland pastures green,
And summer skies were far more blue
Than since they e'er have been.

Eva. "What a delightful old place! I think I shall never be tired of scrambling about these old walls, and finding out all the funny holes, and hiding places in these towers. If only my cousins were here, what a beautiful game of hide-and-seek we could have. I have seen many corners where I could hide so nicely, and nobody

would find me for ever so long. But what a grand place this castle must have been! I wish I could have seen it in the days of those old barons who once lived here. I suppose they often came in through that gateway, all in armour with their followers, and then, perhaps, their ladies came out from that long room with the window arches to meet them. And their children. Oh! I wonder if little girls ever ran about these great rooms, and looked out of those curious arched windows. It is so grand, it seems as if only those great knights and ladies I read about could live here. And then up on that tower, which is all crumbling away, they set their banner. How much there is over the walls, and flowers too, the Snap-dragon and the Wallflower. I suppose they have only grown here since the castle became a ruin, and cannot tell me much about it. I will climb up these rough steps, and get some Wall-flower. Oh! here is a famous place to sit down, and I can look over the old

garden and the other side of the castle. There is not much of a garden now, it looks as if only wild or stray flowers were in it."

Wall-flower. "Yes, no one cares to cultivate the garden now, and all the delicate flowers which wanted attention have died away. Only some hardy things remain straggling here and there."

EVA. "But how did you get here? I should not have wondered to find you down below, among the rubbish, or in the garden, but here you are waving about nearly at the top of the tower."

Wall-fl. "I really do not know, but I suppose the birds or the wind may have carried my seeds up, and dropped them among these old crumbling stones, and as I like such a place, I have grown into a large plant. I always prefer, when I can have quite my own way, growing on cliffs, or rough soft stone, and an old wall is my delight. I have quite an affection for ancient churches, and old castles, and you

may generally find me growing about them."

Eva. "You are an ornament to them, I think, and you look so bright and cheerful on these grey broken walls; I am glad you like such a place, for you are prettier than the ivy, which covers so much of them."

Wall-fl. "If you are careful to observe flowers, you will find that, even the most desolate spot, has some which love to grow about it, and adorn it; and more than that, tell everywhere of their great Creator's presence and love. He built the mighty rocks, and stretched the vast deserts and plains, and He also made the small delicate flower, which grows on them, and gave its beauty, and provided it with the nourishment necessary for it. On this dry wall, where few plants would be able to live, I find all I want, and enjoy myself as much, as other flowers could do in the richest soil; I grow with a root clinging loosely to the mouldering mass

around me, but the rain freshens me, and the sunshine draws out my branches, and opens my flowers. Little girl, the loving Hand which gives me my nourishment, and painted my flower, guards and feeds you, and will always provide for you, who are of more value than a poor Wallflower."

Eva. "That is like what the Moss said to Mungo Park when he was fainting in the sand, and he took courage and managed to get on to where a poor African woman lived, who took him in and gave him food. O! I do not wonder that people love flowers."

Wall-fl. "A young man was here the other day who was fond of climbing about these ruins, and searching into every nook, and he scrambled up the broken steps you have mounted, and sat here for some time. While he was resting, he wrote some lines in pencil, and hid them in a hole somewhere close to me. They are rather fanciful, but you

may like to see them; perhaps you can find them."

Eva. "I will look. Yes, here is a bit of folded paper with something written. What does he say?

- 'Flower of the cliff and ruin,
  Waving thy branches free
  Over the mouldering castle wall,
  Welcome art thou to me.
- 'Like a flag of victory set
  By Time on these old towers,
  Thou wavest over council halls,
  And scenes of festal hours.
- 'Like to a gentle sportive child In Fancy's eye thou art, Cheering, with simple mirthful ways, An aged pilgrim's heart.
- 'And is it Fancy's eye alone
  Can in thy flowret trace
  The figure of the Cross of Him
  Who saved our blighted race?
- 'It may be; yet I love that form, And wheresoe'er 'tis set, In humble herb, or blossom gay, No poison will be met.'—C. M.

There are some more lines, but they are not plainly written, and I cannot make

them out. What does the last verse mean?"

Wall-fl. "If you look at my shape you will see that my petals are placed crosswise, opposite each other. I belong to a very large class of plants, having that arrangement of petals, and called from it Cruciform or Cruciferous. None are poisonous, and by far the greater number are valuable as food or medicine, though some are bitter or acrid. You are no doubt well acquainted with many of our tribe, for the Turnip and the Cresses belong to it, as well as the Cabbage and several other plants."

Eva. "I never thought of you and the Turnip or the Cabbage as related. Are their flowers like yours, really?"

Wall-fl. "They are exactly the same peculiar shape, suggesting the idea of a cross. We all have four petals inserted in a rather long green calyx, and six stamens, of which four are longer than the two others. Our seeds are contained

either in a short pod or pouch, or in a long narrow pod, with generally a division down the centre. Our roots are long and taper, with fibres springing from them, and our leaves are of different shapes, though generally slender and pointed. But you can hardly mistake the flowers of our race, they are all of the same type; and whether large and gay-looking like my family and the Stocks, or small and delicate like some of the Cresses, the form and number of the petals and stamens is the same."

Eva. "I have seen the bees very busy in your flowers, and among the Stocks also; so I suppose you give them honey?"

Wall-fl. "Yes, we have two little receptacles for honey at the base of the stamens, and as both myself and the Common Stock are hardy flowers, and bloom when others are scarce, in early spring and late autumn the bees are very glad of our supplies."

Eva. "Your flower is a very simple

one. I can count the stamens easily, and here is the pistil in the middle. Let me look at your seed."

Wall-fl. "You see it is contained in a long pod, called a silique, which has two valves, with a central division between them, and to this the seeds are attached. The Stock has the same seed vessel, and so have the Cress, Cabbage, and Mustard plants; but some of our order have short pouches or silides."

Eva. "I need not ask you much about your colours, for I have seen you so often, and I think you are always of a yellow or brownish colour, or quite dark. I have often found you growing wild, also; but I never saw the Stock you speak of, except in gardens. Does it grow wild anywhere?"

Wall-fl. "Yes, in some places. The Matthiola Ericana, or Hoary Shrubby Stock, grows in the Isle of Wight, near Niton, and the Great Sea Stock, Matthiola Sinuata, loves the sands of Wales and Cornwall. It is a very unpretending flower, and, by day, you might think it hardly worth noticing, but, by night, it gives out a strong scent: its colour is a purplish drab."

Eva. "You said that none of your race were poisonous; are you useful for any thing? I know we eat Cabbages and Turnips, and Cress, but are there any others that can be used?"

Wall-fl. "I really live so out of the world up here, that I must confess my ignorance of the virtues of most of my order. I have watched the farmer planting the fields below with Turnips and Cabbages, and I have seen the sheep eating them very often; so that I learned that they were good for food; and I sometimes see little Annie Wag go to that brook and gather Cresses to sell; but I cannot tell you about any others. In old times I was thought useful in curing apoplexy and palsy, by a conserve made of my flowers; but now this is no longer

done, and the bees only extract anything from me. Perhaps if you were to go down to the brook, or into the garden, you might hear the tale of some of my relations living there."

Eva. "I will run down there and look for them; I cannot mistake their flowers."

Wall-Fl. "Take care you do not slip over the broken stones, or get a fall down the steps. Good-bye, little girl, I shall be glad to see you here again."

Eva. "O! what a quantity of flowers all cruciform are growing here! White and yellow, with leaves so different. I shall never know them all. Which shall I speak to? Here is one I know, the Shepherd's Purse, perhaps it can tell me about some of the rest."

Shepherd's Purse. "You wonder to see so many of us, but think of there being 800 different species of us in the world, and 200 in Great Britain. I suppose we are so useful for cattle, or for men that

we grow plentifully, and are found commonly."

Eva. "That is a wonderful number, indeed; I suppose you get your name from the shape of your pouch, which is like a little flat purse?"

SHEP. PURSE. "I believe so, it holds my seeds in two divisions or cells, and if you look round you will see that many of my companions here have pouches of the same sort, called silides, though not all exactly alike."

EVA. "Here is a curious looking seed, very large, with two flat green wings on either side of the pouch, and such a tiny white flower."

Shep. Purse. "That is the Penny Cress, so called because its seed vessels are of the size of silver pennies. That Cress and myself have leaves much alike; but, as you see, our order differ much in the shape of their leaves, some being long and smooth, others notched, others very much divided into leaflets. Both

## THE SHEPHERD'S PURSE.

myself and the Penny Cress were used in salads, and cooked as vegetables, as well as esteemed for medicine in old times: but now I think men have found out so many better herbs and plants, that they leave us to the sheep, who still like us very much. The names of many of our tribe show that for sauces and seasoning we were once valued. Do you see those plants growing down on that sandy slope near the sea? They are Pepper Worts, and are worth looking at; many years ago they were used a good deal to flavour dishes, and Poor Man's Pepper, as they were called, supplied those who were not rich enough to afford the foreign pepper. We all have a pungent, acrid, or biting flavour, which no doubt gained for our different species the names of Pepper Worts, Hedge and Treacle Mustard, and some others."\*

<sup>\*</sup>There are five kinds of Sinapis or Mustard; the Arvensis or Wild Mustard, often called Charlack, the Alba, the Nigra, white and common Mustard, cultivated for salads, and also for their seeds which are ground and prepared as a condi-

Eva. "So you are good both for eating and for seasoning food. I like the Mustard and Cress very much; our gardener taught me to sow it in the shape of my name on a piece of flannel, and it came up so quickly."

Shep. Purse. "And I daresay you like the Water Cress (Nasturtium Officinale); there is plenty of it in that little brook, which once filled the castle moat, and I often see a little girl come and gather it to sell; she has a sick mother, and with the pence she earns by her cresses, she buys a little tea or gruel for her, so that I always like to hear her cry in a sort of rhyme

'Oh, you whom peace and plenty bless Come buy my fine spring water-cress.'

ment, and were once much valued as a medicine; the S. Termifolia, Wall Rocket, distinguished by its pleasant smell resembling almonds, and growing about heaps of rubbish and old walls, and the Sinapis Amralis, chiefly found in sandy fields near the sea.

The Turritis, Sisymbrium, and Erysimum, Tower, Hedge, and Treacle Mustards are different species from the Sinapis and each other, having each varieties of their own. They are very common in many parts of England, growing by hedge banks or in waste lands, and neither possess much beauty.

look there is some of it in blossom, you see; the flower is white, and like most of our order, the stem rises straight up, with the flower branching out on short stalks on either side of it; the pod is long and divided."

Eva. "There is another flower I have found growing by the brook which I see is also of your family. It is prettier than the Cresses or Mustards, and larger too. I have often gathered it in spring, and it is a pet flower of mine, for it was the first I found when I went into the fields after I had had a bad fever, and was obliged to keep in bed or in the nursery; Nurse called it Lady Smock and Cuckoo-flower."

Shep. Purse. "Its botanical name is Cardimine, and it is justly a favourite, for it is one of the earliest spring-flowers, and exceedingly pretty. It is sometimes lilac and striped with darker veins of the same colour, sometimes nearly white. It comes out when the cuckoo is heard, which is the reason it is called the Cuckoo-flower;

but as you have chosen me to be the speaker for my relations, I must tell you of one of them which was put to a different use from the rest, being used for dyeing a beautiful blue colour."

Eva. "Does it grow near here, can I

find it?"

SHEP. PURSE. "Not now. Once I saw a plant of it growing on the rough ground above me; but it has disappeared, so J must tell you what it is like. It has a long oval shaped leaf, and a pretty delicate shaped yellow flower, whose petals are pointed, not round like most of us, and give it a starry look. Its pouch is short and wedge-shaped. A good deal of it grew near here when I first remember this place, but it was all taken away except one stray plant; and, as I heard, it was gathered by a dyer's man, for the sake of the colour it gives. I believe its name is Isatis, or Woad."

Eva. "O! then that is the plant Mamma told me about one day, when I was read-

ing about the Britons who painted themselves blue. She said they did it with the Woad. Was it not an odd thing to paint themselves all over with figures of animals or flowers, instead of wearing clothes? But tell me some more of your cousins."

SHEP. Purse. "O! there are so many, I really cannot remember all their names, and you would be tired if I tried to tell you all I know. You have seen a good many already; and, besides them, there is the Alypum, which gardeners like to make edgings to their borders with, and the Candy-tuft, and the Sea Rocket, and the Sea Kale."

Eva. "I have seen those, they grow in our garden; and the Sea Kale is very nice to eat. But I wonder how people thought of making it a vegetable first."

SHEP. Purse. "The Crambe, or Sea Kale, is not a near acquaintance of mine; but I have seen the fishermen taking it home from the shore, and I heard them

say it was almost as good as Asparagus. I suppose, as they cannot get much vegetable here, they are glad to eat that."

Eva. "I assure you it is very good; but I daresay the gardener makes it grow better than it does wild, for he takes great care of it, and puts it under boxes in a bed made on purpose. The stalks are quite white when he brings them in to be cooked. But what is that large cluster of white flowers growing down near the sands?"

Scurvy Grass. "Ah, I have been wondering if you would look at us, we are a very important species of the Cruciferous plants. My name is Cochlearia Officinális, or Common Scurvy Grass; and I have near relations in Denmark, Greenland, and other countries northwards. Look at me. You see the leaves at my root are rather heart-shaped, while those up my stem are long, sessile (or without stalks), and slightly tobed, or divided in two unequal parts. My pouch is nearly

round like a globe. My relations are like me, but their leaves are slightly different, and their pouches not so round as mine."

Eva. "You have a very hard Latin name, and an ugly English one. Why are you called Scurvy Grass?"

Sc. Grass. "Have you never read of a disorder the poor men are subject to, who live much on salt food, called the Scurvy? I am thought very useful in curing it, and I generally grow near the sea, to be ready as a medicine against the effects of the salt air and food."

Eva. "O! yes. I remember reading of Capt. James' crew, who suffered very much from the Scurvy when they were in the Arctic Seas; but they found vetches to eat, which cured them."

Sc. Grass. "Any fresh green food is good in such a case; but I possess peculiar properties which make me useful in that disease. I must just mention a cousin of mine to you now, whose acquaintance you

have probably made before, the C. Aunoracia, or Horse Radish."

EVA. "I know him very well, and am very fond of his root, though it bites my tongue. The gardener showed me the plant one day. It has large coarse leaves, and a greenish flower not very pretty."

Sc. Grass. "No, its flower is not so handsome as mine, or as the Greenland Scurvy Grass. But now you have come down here, let me introduce you to one or two of my more distant kin, who are living near me, and have the name of Grass in English as their surname. That pretty plant in the ditch, with a cluster of small white flowers, marked with the yellow tinge of its stamens at the top of each stalk, is the Draba Nicana, or Twisted Whitlow Grass. You may notice its leaves are narrow and toothed, and its pouch twisted. I think it is a stray plant here, for it is rare, and loves the mountain tops. Its leaves are covered with a soft white down, perhaps to keep them warm."

Eva. "Will it cure Whitlows, as it is called the Whitlow Grass?"

Sc. Grass. "I have heard that its acrid juice, mixed with milk, will do so; but I am not sure, for hot milk alone is very good to put to them, and perhaps the Draba does not deserve its praise in curing. You can try next time you have a Whitlow on your finger."

Eva. "Thank you, Mr. Scurvy Grass, I hope I shall not want to try such an experiment. Is that another Draba growing on the bank near?"

Sc. Grass. "Yes, and a very elegant one; it is the Draba Verna, or Vernal Whitlow Grass. Look at its fairy stems rising without leaves from the circle of pointed, hairy, and toothed leaves round the root; and its delicate flowers, two or three at the top, and one or two again lower down."

Eva. "It is indeed a fairy plant, I like those tiny white flowers so much. I always wanted to find the

Draba Verna, for I know some lines about it:—

'Thou simplest among flowers that live,
Thriving where nought but thou couldst thrive;
Dressing the most neglected spot—
How cheering, Draba, is thy lot,
To live in meekest beauty bright,
In gloomiest time a joyous sight.

Full many a year I've noted thee,
In that cold bed of poverty;
Upon the ancient church wall grey,
Catching in winter some mild day,
To spread, e'er frost and snow were gone,
Thy small bold floweret to the sun.' S. R.

I must not stay here much longer; tell me, are there any more kinds of the Whitlow Grass? They are so pretty I want to know them."

Sc. Grass. "Not here; but there is a very pretty kind called the Yellow Alpine Whitlow Grass. Its flowers are yellow, and about as high as those of the Draba Verna, and its leaves are thickly clustered together below. You will find also the Draba Muralis, or Speedwell W. Grass,

if you look about on limestone rocks, but it is rare."

Eva. "Now I must try to remember how many of your race I know, for I have never seen such a large family before, and all good for something. If I were like Robinson Crusoe, cast on a desert island, I think I should be well off, if I found you all growing there, with some eggs or turtles to serve me for meat. I could have Cabbage, and Turnip, and Radish, and Sea Kale for vegetables; and as there are many sorts of Cabbage\* and Turnip, I should have plenty of variety. Then there are Mustards and Cresses of many kinds for salads, and Pepper Worts for seasoning. And if I was ill, besides the Scurvy Grass and Whitlow Grass, there are others of you good for medicine. I should make my garden gay with Wall-

<sup>\*</sup> The Brassica or Naven is the original of the hundreds of varieties of Cabbages which have been introduced into cultivation. It loves chiefly rocks by the sea-coast. This species is most useful as affording a good nourishment for cattle, and a widely cultivated vegetable for man, besides yielding in one of its varieties the oil called colza.

flowers, Stocks, Candy-tuft, and Sea-Rocket; so you see I should get on very well. I should like to make a collection of you all in my dried flower book, now I know so many of you."

Sc. Grass. "Then you must arrange us according to the shape of our seed vessels, not quite according to our uses. You will find we have three chief varieties of pouch, and the plants which bear the same English name do not always have the same pod. There is the silide, or short pod, with two valves, and a centre partition like some of the Cresses, the Draba, the Pepperwort (Lepidum), and myself. Then there is a pouch, with only one cell and one seed, like the Sea Kale, the Sea Rocket, and the Isatis, or Woad. And the Silique, long pod, with two valves which belongs to the Cardimine, the Hedge, Treacle, and Tower Mustards, the Wall-flower, the Stock, and the Cabbage. The Radish stands alone, having a long pod without valves."

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Eva (sighing). "That is a good deal to remember, but when I arrange all the plants, I shall know them better. Well, I like you all very much, for you are so useful."

Sc. Grass. "Yet you may remember that though it is right to be thankful for all the good plants are to you in food and medicine, you may be glad also of their simple beauty. Many, too, which are not directly useful to man, have their own value in some way, though unknown to you, and you may admire them, and love them just the same."

Eva. "Yes, I remember—

'God might have bade the earth bring forth Enough for great and small, The Oak tree and the Cedar tree Without a flower at all.

'Then wherefore, wherefore, were they made All beautiful and bright? To minister delight to man, To beautify the earth.'

M. HOWITT.

"Goodbye to you all."

# THE PINK.

## THE CARYOPHYLLEÆ ORDER.

"Tiny dweller of the sod,
Maiden Pink, the flower of God!
Trustingly thy form ariseth
From thy low and grassy bed,
And the heart the lesson prizeth
On thy modest petals read;
Cheeringly thou seem'st to say
Do thy best though late thy day!"

Eva. "There now, I have lost all this beautiful afternoon, and had nothing to do that I liked; and all because that tiresome gardener would not let me have some of his Carnations when I asked him. I don't see why he should have minded letting me gather them, I think he might as well have been kind. And then he said that wild flowers were best for children,

and that I could gather Pinks and Carnations here. I am sure I see none."

CLOVE PINK (bending from the cliff beneath which Eva is sitting).\* "You must use your eyes then, little girl; and you will see many pretty things you do not yet know of. I can show you some about here; and perhaps you will think, by and by, that the gardener is right about wild flowers being the best for children. But what makes you look so unhappy on this lovely August afternoon?"

Eva. "I only wanted to have some beautiful Pinks and Carnations, that were in our garden, to make a nosegay for Rosie, as she is coming here to-morrow, and the gardener would not let me gather them; and I was very sorry, and did not know what to do, so I wasted all the time I ought to have been at work, and was not ready to go out with mamma. Was it not

<sup>\*</sup> The Clove Pink grows near Sandown Castle, in Kent; also near Norwich, and on Rochester Castle.

tiresome? But how could the gardener say that I might find Pinks and Carnations wild? Was he not laughing at me?"

C. Pink. "Oh, no, he was quite right; though, perhaps, till you have learnt to know us well, you may not think us worth comparing with the flowers in your garden."

Eva. "Are you the same plant, then? But you are single, and not nearly so

handsome as our Pinks."

C. Pink. "Yet we are of the same stock; and, indeed, I claim to be the most ancient by far. Your garden Carnations are offshoots, transplanted from my old family; and (as I allow) improved, in some respects, by education and good nurture. In the eye of a botanist, however, and in the opinion of those learned in such matters, I and my wild cousins are more perfect flowers than your favourites of the garden."

Eva. "How can that be? Our Pinks and Carnations are larger and handsomer

than you; they are quite double. I should have thought they were more perfect flowers than the wild ones, which only have one set of petals."

C. PINK. "If you will be patient enough to examine me, I think you will see how it is that I am called the most perfect flower of the two; you may observe that I have my five petals set round as a defence to the stigmas, and stamens in the centre of my calyx; these two latter, as being the means of forming my seeds, are considered the really important parts of the flower; and the petals, though the more ornamental, are chiefly intended for a guard to them. So it is in every perfect flower; the petals only surround the pistils and stamens, and when their office of protecting them is done, they fall off; but if you remember the Garden Carnation clearly, you will know that the petals make up the chief part of the flower, and that though you see the stigmas, the stamens are lost.

They have been, by cultivation and the art of the gardener, turned into petals; adding to the beauty of the flower, but rendering it a sort of imperfect monster, in respect of its real character."

Eva. "How very curious! but I like these monsters, as you call them; and I should like to turn your single flowers into double ones. Could I do it by transplanting them into my little garden?"

C. Pink. "I do not think you would succeed in soon making much change; though, perhaps, if your soil is better than what we get here, and such as we like, you might have a double row of petals in a year or two; still it takes a good deal of care, and skill, and management, to render us the flowers which are considered the beauty of a greenhouse or border; and, for my own part, I had rather you left me to wave wildly here in the seabreezes, and be a pleasure to children, and the bees and birds who wander here; yes, and even clever men love to find such as

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we, blooming on waste walls and cliffs. It is not long ago that a good and wise man wrote of a sister of mine, who dwells on Rochester Castle, these lines:—

'The Castle Pink, the Castle Pink,
How wildly free it waves,
Exposed to every blast that blows,
To every storm that raves.

'It heedeth not the pelting rain,
Nor whistling gales that sweep,
Around the time-worn battlement,
Around the massy keep;
But smileth still, and flourisheth,
The various seasons through;
For God he nourisheth the plant
With sunshine and with dew.

'The swallow loves the Castle Pink;
And now and then a bee,
Borne upwards by a sudden gust,
Clings to it lovingly;
Like one who journeyeth afar,
Where unknown realms extend,
Whose heart is gladdened by the sight
Of some familiar friend.'"

H. G. ADAMS.

Eva. "I did not know that wild flowers could be changed into garden flowers, I thought they were very different."

C. PINK. "Why, little maid, all the flowers you have in your garden are only made to grow from plants and seeds, which, in this country, or some other, were natives of the woods, or rocks, or fields. They may be much changed, for gardeners can do a great deal by mixing different soils for them, and also by rearing new kinds from seed; but they all were wild once. Your beautiful Roses are relations of the pretty Rosa Canina, which I see clinging round that old stump over there; and your Pansies are only cousins of the little modest Heartsease, which every shepherd-boy knows"

Eva. "I ought to have thought of that; and Papa told me that though we have to take such care of our Geraniums, and keep them in the greenhouse all the winter, they grow wild in Spain and Africa."

C. Pink. "It would be an amusing task for you to find out where all the

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plants you admire in your garden grew in their native state, and to trace the changes they have undergone, and the new varieties they have gained. Many of them are strangers, and come from different countries, and other climates than ours; but you may find several have relations of their old family stock in our own meadows and waste lands."

Eva. "I shall do that, perhaps, by and by; but now I like talking to you best, and as you have begun telling me something about yourself, I want to hear a little more. I do think you very pretty and very sweet, too, and if I had not been so vexed about the Carnations, I should have felt more surprised to see you here. I never found any Pinks wild near our own home."

C. Pink. "That is likely, for our family do not grow everywhere. We like dry gravelly soils, and I never grow except in such places as this. Indeed, some people have doubted whether I was

a truly wild flower; but I have lived so many years free, and sprung up just like a native here, that I quite forget whether I ever was brought from other parts. I must tell you that I am the original of the Carnation, not of the Pink in your garden; and, though of the same order and tribe, the two plants are quite distinct; and the seed of one will never produce the other, much alike as they seem."

Eva. "Then is there a wild Pink from which the garden ones come?"

C. Pink. "Yes, there are the Deptford Pink, the Proliferous Pink, the Mountain Pink, and the Maiden Pink. The two first are common in Kent, and some other parts of England; but the two latter are very rare—the Mountain, or Cheddar Pink, only grows on the Cheddar Cliffs in Somersetshire; and the Maiden Pink loves a gravelly soil, but is shy and uncommon. We are nearly related also to the Sweet William, which, in its wild

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state, is a sister of mine; or rather, I ought to say, it is a variety of my plant cultivated."

Eva. "You are all very pretty indeed, and quite fit to make nosegays of. I will make one for Rosie, only I wish there were more of you, and that the Mountain and the Maiden Pink grew here too."

C. Pink. "Though they do not, you may find many very elegant and beautiful flowers, not far off, belonging to our tribe; for, both in colour and in form, we boast much loveliness. But before you go to gather any, let me tell you our chief marks and peculiarities."

Eva. "I see one thing that I think belongs to you especially, for I have not noticed it in other plants. You have a curious jointed stem, like a reed."

C. Pink. Yes, our stems are slight and hollow, of the same construction as the grasses; and these joints are to strengthen them. All the plants of our

order have such stems, hollow tubes, with joints at intervals, from which spring generally a pair of leaves; or, if not perfect leaves, there are the rudiments of them. My leaves, and those of the Pink tribe, are long and grass like; and, as you see, some spring from the root; and others grow in pairs up my stem. Then my calyx is scaly, there are two small scaly leaves fitting round its base, and the calyx itself is a tube toothed at the top. I have two styles or pistils, and the number of my stamens is the same as my petals generally. My capsule, or seed-vessel, opens at the top with four valves, and the seeds are flattened. In these points, all my nearest relations, whom I have already named to you, agree: our differences are only slight—such as variety of size, colour, the exact shape of the petals or of the leaves, and the texture of the stalk. These you will easily learn to discover, if you are observing and careful."

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Eva. "But how do people know which are your nearest relations, and which are only of the same tribe, and not really belonging to you?"

C. PINK. "All plants which have a calyx and corolla are classed together, that makes a distinction between them and those that have not these two. Then, again, each class (for there are two besides) has many orders in it, distinguished from one another by the number of their stamens, petals, ovaries, and other marks. You would, for instance, easily know any of my order, by the four or five petals collected into a tube, the single ovary, the position of the stigmas, and the capsule opening by twice as many teeth as there are styles. Most of this order are grasslooking, or shrubby plants, with bright coloured petals. I have gone into this explanation, that you might better understand the answer to your question. Now all plants in a tribe have the same general look, and are much alike in their form and

way of growth; but yet there are different species which can be easily told from one another. You know me, and your garden Pinks, and Sweet Williams, we are all one species; and if you look a little way off, you will see one or two other species of our tribe, the Catchfly and the Corn Cockle. They are like me in their way of growth, the parts of their flower and their formation of seed; but you can see at once that they are not very closely related. You would not mistake them for one of us, I am sure."

Eva. "No, I can quite see that; and I might easily mistake one Pink for another; they are only different in their size and colour."

C. Pink. "Or in other trifling alterations of the original; so that there may be many varieties, yet all nearly related, and in the same species. Now run up to that field and gather all the flowers you can find, and I may be able to introduce you to some of my cousins."

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# (Eva runs away singing):-

"Oh fair and gay are the sweet wild flowers,
Decking the lonely woodland bowers;
Peeping out from the hedges in beauty shy,
Hiding deep in the dells from the curious eye.

"They cheer each waste and uncultured place,
They twine the old wall with a fairy grace;
Round the fallen tree-boughs they fling their wreath,
And carpet richly the soft turf beneath."

C. M.

EVA. "What a number of flowers, and so many pretty ones! Now I will find out for myself the cousins of my new acquaintance, the Pink. Let me see; I think you are one, for you have certainly a jointed stem with a pair of leaves growing from the joints, and your leaves are slender and long, though less like grass than those of the Pink."

CORN COCKLE. "You are right, I am of the same tribe; but you must not trust to the shape of the leaves, as they often vary. Look at my calyx, and you will see it is of the same form as that of the Pink, though not scaly, but rough and hairy; and

if you examine my flower, you will see it has five petals, undivided at the base. If you had come a week earlier, I should have been in greater beauty, for July is my favourite month. Gather this branch, and you will see my seed. The calyx is tube-shaped, but ends in long fine leaves, as I must call them; which both guard the bud and protect the seed while ripening."

Eva. "What pretty, shining black seeds you have! But though you are such a lovely flower, I suppose the farmer does not much like you to grow among his corn?"

C. Cockle. "No; I am treated as a weed, and pulled up without mercy. I confess, however, that there is good reason for this. My seeds, like those of many of my relations, contain a juice which hurts the corn, and would make the flour full of black spots. This very juice, however, is useful in its way, it is called Saponine, or Soapy; and though I have not enough of it to be employed, there is a plant, the

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Soap Wort, nearly related to me, which is much used for cleansing cloths and wool in Italy. You may, perhaps, see it some day; but it does not grow commonly wild. It has a large cluster of pale pink blossoms growing on a stem."

Eva. "I did not know that soap could be got from plants."

C. Cockle. "Not such soap as you use; but a juice which cleanses and answers the same purpose is found in many plants."

Eva. "Ah, there are the flowers I used to play with in our fields at home, the Campions and the Ragged Robins. I will look if they are of the sort I want. Oh, yes! they have the same stem, only rather thicker and hairy, and the leaves rougher and wider; that does not much signify, the calyx is right, and the petals are five. But the stamens are very different, some short, some long and thick; but that will not matter, I suppose. I am rather puzzled about the Ragged Robin, it is such a funny flower, cut into ribbons. But it has

only five real petals, I see; so it must be of the same tribe."

RAGGED ROBIN. "Yes, I am, indeed; and my graceful stem and light flowers are thought very pretty. I like the river banks better than such a dry place as this. I rather think I must have come here by accident."

Eva. "I am very fond of you. I often have gathered you by our own little river at home, among the reeds and rushes."

R. Robin. "As you have put me among the Bladder Campions and Sea Campions, I may as well tell you that their species is not the same as mine. I am a Lychnis, and they are Silene. I and my species have five styles, they have three. My stalks are woolly, or hairy; and theirs are often sticky from the juice in them."

Eva. "Is that why I see some little insects clinging to this one? They must have got on the stem, and then been held by the sticky hairs."

LYCHNIS. "Very likely; and so some of the Silene are called Catchfly."

Eva. "It is very difficult to know you all, one from another. You are alike in your shape, and yet there are so many little things which divide you from each other."

LYCHNIS. "You must pull a good many of us to pieces, and observe very carefully all our differences, and then you will learn by degrees to know us. It is by the number of our styles, the divisions of our capsules, or some particular quality in us, that our species are known."

Eva. "What a pretty little edging, like a crown, the Red Campion has round its petals where they meet."

Lychnis Diurna. "That is called being crowned; and many of our tribe have the same."

Eva. "Now I really cannot leave that dear flower, the Stitch Wort, though I see only a few fading blossoms now. I

do not think it can be a relation of those I have gathered already; but it is such a darling flower. What a beautiful day that was in May, when Mamma took me into the woods, and we walked through those pretty lanes, and gathered baskets full of flowers. I shall always love the Stitch Wort, it looked so lovely on the bank among the Nettles, and I was so happy. Let me see if I can remember the lines I learnt about it.

- 'Thou spotless and lovely star of the earth, Though 'mid weeds thou hast thy birth, Thy snowy cup is free from stain, Unsullied by dust, uninjured by rain.
- 'Though in beauty a mate for the fairest flowers, Content thou dwellest in humble bowers, Blooming amid the coarse Nettle and Thorn, Thy delicate sprays by the rough bank worn.
- 'Pure as the Lily thy petals of white, And golden as hers thy stamens so bright; Yet freely thou grow'st by the wayside drear, The traveller's lonely spirit to cheer.
- 'O, starry flower, would that I could be In simple purity like unto thee; My spirit all cleans'd from sinful stain, Abiding calmly vexations or pain.

- O would that like thee I could do my part, With a meek, and humble, and loving heart; Contented to dwell where God sets my place, And adorn my lot with each christian grace.
- 'May He who hath formed thee so spotless and fair, His praise by the travel-worn road to declare, Make me by His Spirit a holy shrine, Filled and brightened ever, by love Divine.'

C. M.

Now I have quite a large nosegay, and I will go back and show my friend, the Pink, all his relations; though I am not at all sure that these white flowers, a little like the Stitch Wort, are really of the order. Here, Mr. Clove Pink, I have brought you a great many of your cousins, all these Campions, and Corn Cockles, and Catchflies, are of your order, I know; but I am not so certain about this pretty flower, though I see its stem is jointed like yours, and the leaves opening out in the same way."

C. Pink. "Ah, the Stitch Wort, the Stellaria Holostea! Yes, it is of our order; but not so nearly related to us as the Lychnis and Silene. They and my

tribe all are of the Sileneæ, but the Stitch Worts, the Chickweeds, and some others, are of the Alsineæ tribe. I am glad you have brought these, and it can be scarcely necessary to point out to you the great beauty and elegance of the Stellaria. You may observe that the Alsineæ have all the sepals distinct, instead of a tube in which the petals are inserted; and the stamens unite in a ring beneath the capsule. The seed vessel is round and flattened."

Eva. "I am very fond of the Stitch Wort, and I like also this little Chickweed, which my canary devours so eagerly. I suppose, though I see some difference between these flowers, they are only varieties of the Stellaria?"

C. Pink. "Yes; and you can learn to know them by degrees. I see you have found a little of the Sea Purslane, and Sand Wort, which are also Alsinea."

Eva. "I shall try to look more at

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them another day; but now I see the sun is setting, and I must go in. I have a very fine nosegay for Rosie, though it is made of wild flowers, and I dare say she will like it quite as well as if the gardener had given me a bunch of his Carnations."

C. Pink. "She will, I am sure; and the more you examine the wild flowers, the more beautiful they will appear. Your eyes cannot even see half their colouring and beauty. I have heard a botanist say that, seen through a microscope, our form and tints are wonderful. Do not grumble another time then if you are not allowed to have just what you want, but try to content yourself with what you may have. You will often, if you cheerfully take a disappointment and turn to something else, find pleasure you did not expect; at least you will escape the pain of fretting."

Eva. "I have had a great deal of pleasure I did not expect this afternoon, and more than, I am sure, I deserved. I

#### GOOD NIGHT.

will try not to fret and waste my time, another day. Goodbye, I will come again, if I can, and see you. Goodnight; the sun is set. Goodnight."

## LINEÆ.

### FLAX TRIBE.

"But then out comes the Flax-flower,
As blue as is the sky;
And ''tis a dainty little thing'
We say as we go by."

M. HOWITT.

(Eva, standing near a cottage in Scotland, talking to the good dame).\*

Scotchwoman. "And so you like our hills, and the bonny heather, my bairn, do you?"

Eva. "Oh! yes; I never saw anything so beautiful before. The hills are purple with the heather; and I like to hear the sheep-bells, tinkling here and there, and see the great shepherd dogs, watching their flocks and the cows so carefully.

<sup>\*</sup> We do not attempt to give the Scotch dialect; but have translated the good dame's language into English.

Such a kind little girl gave me a ride on her rough pony just now; she said she was waiting for her father, who was gone after some sheep, that had strayed down into the hollow."

Scotchwoman. "That was my Jeanie, I daresay. My gudeman is shepherd to the laird at the big house up there; and plenty of work the sheep make for him sometimes, straying about, poor things. Jeanie helps her father in looking after some of them; and our dogs are wonderfully knowing about the flock, they will watch better than man or boy."

Eva. "And this is your cottage! It is smaller than what our shepherd lives in, a great deal. I thought it was only a great heap of turf, when I saw it first. Is it comfortable inside?"

Scotchwoman. "We find it very comfortable; and our folk have lived here many, many a year. Come in, my bairn; ye're welcome to look at the old place. There is my father in the corner of the

hearth, he has sat there for six years, ever since my brother died, and he was obliged to leave his own house. He is quite blind, and very nearly deaf."

Eva. "Poor old man; how sad for him not to be able to see any of you, or hear you either!"

Scotchwoman. "He takes it very patient, and is most times very cheery. He tells us sometimes, that he sits and thinks of the place, where the eyes of the blind shall see clearly, and the deaf ears shall be unstopped. He knows his Bible almost by heart, and can say whole chapters, without any of us helping him."

Eva. "It is a snug little place in here, and feels very warm; but I never saw anything in England like it. And is that your garden?"

Scotchwoman. "Tis not much of a garden, bairnie; we have but a poor ground, with plenty of stones in it; we do just manage to grow our potatoes, and make a little hay for the cow."

Eva. "But what is that pretty blue flower, which grows so thick on that patch of ground, with a fence of stones all round?"

Scotchwoman. "Ah, that's our Flax-field, a precious bit of ground it is; I spin all the thread for our own linen from that Flax, and then my cousin Davie weaves it. I have got a good sight of fair white linen in my chest, and all our sheets I spun myself, and bleached them too."

Eva. "But how do you get thread from that plant? I see nothing to make it."

Scotchwoman. "Look here, my bairn; I will shew you: this stalk is what we get the thread from, it has very strong fibres, and when all the softer green parts are got rid of, we spin the fibres into thread."

Eva. "It does not look much like thread now."

Scotchwoman. "No, there is a great

deal to be done with it, before it will look so. We have plenty of work in our Flax-field, from first to last. There is the ground to pick over, and get ready, which Jeanie, and my two boys, and I, do mostly ourselves, for my gudeman has not the time; then we have to keep it weeded, when the Flax is sown, and comes up; and when the seed is ripe, we pull the plant, and prepare it for spinning."

Eva. "I should like to see you spin, I never saw anyone do that."

Scotchwoman. "This is my spinning-wheel, and this we call the quern. I turn the wheel, and keep the Flax twisting in my fingers, and it comes into thread."

EVA. "Is it easy to do? It looks rather nice work."

Scotchwoman. "I find it very easy, but Jeanie cannot yet do it evenly enough, she breaks the Flax sometimes, and makes rough parts in her thread; so you see it wants practice to do well. I have spun ever since I was a nine-year-old child, and

when I married, I brought a good store of linen to my husband's house. We were richer then, and had a little farm of our own; but we lost a good deal afore Jeanie was born. However, the Lord be praised, we do very well."

Eva. "That Flax looks quite different from the plant; it is more like Tow."

Scotchwoman. "Tow is only the waste parts of another plant, called Hemp; and it is rather like this to look at; but the Flax is much finer. You see we have to do a great deal to the stalks before the Flax can be spun; they are soaked in water a long time, and then dried to remove the soft green part, and only leave the strong fibre which makes the thread."

Eva. "And then when you have spun this Flax, you weave it; do you not?"

Scotchwoman. "I have often helped to weave it; but my cousin Davie generally does that for us; and we pay

him, for he has a good loom. Ours is old and broken, there it lies in the corner."

Eva. "It has a little bit of cloth on it now. I suppose it was broken before the weaving could be finished."

Scotchwoman. "Yes, it was an old thing; but my husband thought he could manage a bit of weaving on it. He was obliged to leave it, though; and there it has bided ever since. These threads downwards are called the warp, and these which are passed to and fro by the shuttle are the woof."

Eva. "What is done to make it white, for sheets do not look that colour?"

Scotchwoman. "Oh, we bleach it well on the grass, before we make it into sheets. The pieces of linen are laid out, and watered, and left in the sun and air till they become white."

Eva. "People do not spin in England, I think; and I never saw any Flax there growing. Does it grow anywhere but in Scotland?"

Scotchwoman. "I have heard it is grown in Ireland, and that they make a great deal of linen there; and ye mind, my bairn, that they used to make fine linen in Egypt, as it says in the Bible. Oh! I daresay the linen that Joseph was arrayed in, was a deal finer than any we make here. I have heard they used to make it as fine and soft as silk."

Eva. "I remember there is a great deal said in the Bible about people being dressed in fine linen, and I suppose the best was made in Egypt; for, now I recollect, it says, 'fine linen of Egypt.' And the rich man mamma read to me once about, was clothed in purple and fine linen."

SCOTCHWOMAN. "There is a better fine linen than this, dear; do you mind, it says the saints are clothed in fine linen, clean and white. God grant you and I may have such a dress to appear before Him in!"

Eva. "I do not think my clothes are made of linen. My frock does not feel like that piece of linen, yet it is white like it."

Scotchwoman. "Your frock is made of cotton, bairnie, like my gown; only a deal finer, and it is not coloured. I have heard that they get the stuff to make it of from a tree in foreign parts, America I think. It comes out of a pod like white wool, and they spin and weave it just like Flax. I suppose it is easier to come by, for most people wear it now instead of linen. I don't like it so well, it doesn't wear nearly so long as linen. Jamie Donald, the travelling man, brought me a piece of it last May two years, and it went into holes long afore a linen thing would have worn bare. To be sure, it was cheaper; but I thought to myself the stout home-made linen is not so dear in the end."

Eva. "I like the flower so much, it is such a beautiful blue, and looks so grace-

ful on its slender stem. May I gather a bit to keep?"

Scotchwoman. "Aye, bairn; and may be ye'll think of the old Scotch hills when ye're far away."

Eva. "Indeed, I shall; and I shall not forget how kind you have been in showing me your cottage and your spinning. I will ask Mamma to come with me here another day. Goodbye now."

Eva (walking homewards). "You pretty flower, I must look at you a little closer, and see what you are like. You have got three sepals; stay, here are five, wrapping over your bright blue bud; and I see them beneath the flower when it is full blown. How curiously your petals are folded or twisted over each other in the bud, and they have each a sepal. Let me count your stamens. Oh! they are just the same number as your petals. And here is your capsule, round, and tipped with the bottom of the styles. What are the seeds like? Very small; I

see; and each one has a half cell to itself. I think I shall know you easily again, even if your colour were changed."

FLAX FLOWER. "You would not find much trouble in that, for there is but little variety in my order. Only the Lineæ belong to it, and there are, I believe, about three tribes. Our colours vary too, only a little, we are white, or blue, or yellow. I am, as you have heard, the plant from which thread is made, and am known by my single stem rising from the root."

Eva. "You are a very useful plant, I am sure. I have met with some plants good to eat, and a great many very beautiful ones; but you are the first I have seen good to make clothes from."

FLAX. "There are many more plants in the world that are used in different ways for that, and I am only a little humble thing, yet I have a great deal of care taken of me; and I am thought very precious by the good woman who lives in that cottage. She and her children walk about the ground where I grow, and look at me early and late, and if I look healthy they look so pleased."

Eva. "They know what nice strong garments you will provide for them. Now I see a person might not only grow what they want for food in their garden, but their clothes too. I should never have thought of that."

FLAX. "You would want a large piece of ground to grow all the food for a family, and all the Flax for their clothing. However, in this wild part of Scotland, the people nearly do that—for they have their patches of corn and potatoes, and their Flax-field. Besides, the waste common ground feeds sheep; and many a dame spins her own wool, and makes the warm tartan for her family."

EVA. "They are very industrious to do so much. If Robinson Crusoe had found Flax in his desert island, he might have made himself a new shirt, which would have been more comfortable than his goat-skin dress. He was so clever, that I daresay he would have found out how to spin and weave."

FLAX. "There are many other plants from whose fibre, as I have heard, thread can be made. Duncan, the eldest son of the good dame who has been talking to you, is a clever lad, and fond of reading, he told Jeanie, when they were here the other day, that even from Nettles thread could be made; and from a large coarse plant, a little like a very large Nettle, called Hemp, a very strong cloth is prepared. He said, too, that there is a tree which grows in a country far away, whose inner bark the people take off, and they can wear it as it is, without any further trouble. It is like an uneven piece of lace-work; but warm enough, perhaps, for that hot country. He called the tree a Palm."

Eva. "I will ask Mamma to find me some book where I may read about that;

#### DRIED FLAX FLOWERS.

and I will put you among my dried flowers, as a remembrance of this beautiful place.

'Oh, the goodly Flax-flower!

It groweth on the hill;

And be the breeze awake or sleep,

It never standeth still.

'Then fair befall the Flax-field,
And may the kindly showers
Give strength unto its shining stem,
Give seed unto its flowers.'"

# LEGUMINOSÆ.

THE VETCH AND BROOM.

Eva (playing on a wild chalky bank, where low bushes are growing, and Broom, Furze, and many other flowers are in blow).\* "What capital fun it is running about here, up and down the little mounds, and round the bushes; I have not had such a good game of play for a long time. I am quite hot and tired. Now, let me see what I can find next to amuse me; here are plenty of things to be done, I think, in this nice wild place. How full it is of flowers; I can make a bunch of them, big enough to fill nurse's

<sup>\*</sup>On banks formed by railway cuttings, and on waste places, where Hop plantations have been once, the Leguminous plants flourish in Kent, on chalky soil.

largest jug. And how gay they are! There, now I have more than I can hold; I will lay them down, and get some from those bushes. I wish that one was not so prickly, it has such a handsome yellow flower. Now there are enough, I must sort them, and tie them up with this bit of string. Mamma was very wise to tell me to unfasten its knots carefully, and to keep it, when I took it off my new book this morning, Now it will tie my nosegay very well. But, how funny! all these flowers have the same shape, very nearly; some large and some small, and all colours; but they are made like the Bean-flowers in our garden. Now, pretty flowers, tell me a little about yourselves; and whether you are really all relations."

FLOWERS. "Yes, we are; and some of us very near ones. I am the Broom, and I am the Vetch, and I. . . . ."

Eva. "Pray stop, for I really cannot understand you if you all speak together, though your voices are so soft and sweet.

Now, Mr. Broom, you are the largest plant here, you shall tell me about yourself and the rest."

Broom. "I am not only the largest plant, but much the oldest; I have lived here, as well as I can remember, ever since this bank was left in its present state. I was a very small thing when the tall trees were cut down, and I have grown bigger every year till now; as you can see, the stem of my parent shrub is quite thick, and it looks a large bush. The plants, whose flowers you have mixed with mine, are only lately settled here; and, poor things, they never grow any bigger, for they die down every winter into the ground."

Eva. I daresay they are very happy to escape the cold and the frost, and lie snug all the winter in the warm earth. They are too delicate to bear the severe weather, as you can do with your hard stem. But your flower is very like theirs."

Broom. "We certainly belong to the

same order; and, unlike as we are in our growth, have a strong family resemblance in our blossom. But I rather join myself to that large bush above you there, with its splendid golden flowers; and I have some great relations in foreign parts, who form the glory of the woods. I am connected, as I have heard, with the beautiful Mimosa Tree, and the Scarlet Coral Trees, and many other rich and beautiful plants, which festoon the forests of America."

Eva. "Indeed, Mr. Broom; for a little English shrub you are wonderfully fond of your great connections; and seem more inclined to speak of them than of your neighbours here."

Broom. "If you could see some of our order in America, and other parts of the world, you might not think much of the little plants here."

Eva. "I have seen some of them in greenhouses, and very beautiful they are. I remember two or three with flowers shaped like yours, and of such lovely

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colours, which came from America and Australia. I admired them a great deal; but I did not love them as I love the wild flowers, which I can play with and talk to."

Broom. "There are also some very valuable plants of our order, which produce substances useful in medicine and in art. The Liquoria, which is used for coughs, belongs to it; and the Indigo, which dyes cloth a beautiful blue colour. Then there is another plant, called fishwood; pieces of which are thrown into the water to intoxicate the fish, that they may be easily caught."

Eva. "You know a good deal, I must confess. How did you contrive to learn all this?"

Broom. "As I told you, I have lived here a long time; and I like to listen to all that goes on about me. Some time ago, when a few trees were still standing, and giving a pleasant shade here, a boy used to come with his tutor, and spend many afternoons on this bank, and I

heard all I have been telling you, from their conversation. I can tell you something else, too, which perhaps you did not know, about myself. Did you ever hear that I was worn as an ornament in the cap of a knight very famous once, and that many kings of England were named after me?"

Eva. "Oh, yes; I have heard that, it was Fulk, Count of Anjou, who gathered the Broom-plant, and wore it in his cap; and the Plantagenets were named after it. But I want to hear about these flowers, so I shall ask one of them to tell me their history. Come, I will take you; and now tell me your name, and what order you, and all your companions belong to."

YELLOW VETCHLING. "I am called by the name of Vetch, and so are most of the flowers you have in your hand. We belong to the order of the Leguminosæ, or plants with pods, for legum is a name for a pod. I can only call myself a very humble specimen, and you might see our

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form more clearly in the Pea or Beanflower. However, if your sharp eyes look carefully, you may be able to find out our parts and shape even from my small flower."

Eva. "I remember the shape of a garden Pea, I am so fond of it. There is a broad part spread out like a fan, and then two wings, and the centre. It is a little like a butterfly, and I can see you have the same form, only you are smaller."

YEL. VETCH. "We are butterfly-shaped flowers, and that form is peculiar to almost all our race. Some few foreign cousins of ours are different, but I believe all our English relations bear the likeness to the beautiful insect, which we delight to watch fluttering about. I have once or twice wished that my wings were able to carry me up to sport in the air, but I daresay I am better here."

Eva. "It would be funny indeed if all you flowers were to take wing, and flutter about this bank. But what a gay

crowd you would be! yellow, crimson, purple, lilac, and striped. I see you grow very like the Sweet Pea, with a straight stem, that seems too weak to support itself and pairs of pointed leaves running out from it. And here are the tiny tendrils by which you catch hold of the stems of the grass, or anything you may be near."

YEL. VETCH. "All my nearest relations, the Vetches, have that tendril, except that beautiful crimson variety which you have here, whose leaves are like small blades of grass, not being full shaped or perfect like mine; these tendrils, as you say, are very useful to us in enabling us to find support for our delicate stems, which must otherwise lie on the ground."

EVA. "The Sweet Pea has also tendrils, and it takes very tight hold of the sticks which the gardener puts near it; but the Bean, which has a flower very like yours, does not want support; it grows strong enough by itself."

YEL. VETCH. "The Bean is not so

near a relation of ours; and the varieties of Clover, which have a flower of the same sort, also require no support. There are three groups of our order, all differing from one another. I belong to the Vetch group; the Broom, Clover and many others are of the Lotus group, all of which have firm stems."

Eva. "I do not see any stamens in your Flower. Here is the calyx, with five divisions; and the petals are this coloured winged part; but where are the stamens."

YEL. VETCH. "They are very carefully guarded by the folding wings, and cased in a tube, so that you cannot readily see them; but look narrowly at a withering flower, and you will see them."

Eva. "Ah! here they are; and here is the tiny pod which holds the seeds. It is like the pod of a Pea, only much smaller. "I know that very well; I have often shelled the Peas for dinner; it was such fun. A little while ago, Rosie and I

grew some Peas in my garden, and we shelled them ourselves, in the summer-house, and had a dish of them for our dinner. You are too small to eat, your seeds must be little tiny things."

YEL. VETCH. "I do not think our seeds are eaten, but the whole plant often is, by cattle generally."

Eva. "O! I remember the poor sick sailors of Capt. James were cured by a Vetch plant which they found and boiled. Are all of your order good to eat?"

YEL. VETCH. "A very great number are; and in this country, I believe, none are poisonous. You know how good Peas and Beans are; and cattle eat Clover, which, indeed, is grown for them; and many others of our order too, if they can get them."

Eva. "The Clover-flowers are very sweet; I have often sucked them to get the honey. They are still smaller than you."

YEL. VETCH. "Yes and different in many ways; they grow in clustering

heads on a short stalk, and their leaves are formed of three, or more, rounded leaflets joined in one. That is called a trefoil, and has been made famous by the Irish Shamrock; whose story, perhaps, your mamma can tell you. Most of our species grow singly, like the varieties you have in your hand, and the Sweet Pea; but there are some which cluster thickly on the stem, growing in pairs on its under side."

Eva. "The Broom said that the beautiful golden flower on that bush was a relation of his. I suppose it is only a distant one of yours."

YEL. VETCH. "That is the Furze, which indeed belongs to another group; and is one of the most beautiful of our English relations. The flower, as you may see, if you examine it, is like ours in shape; and has a sweet, peculiar smell."

Eva. "I like it to look at; but the plant is so prickly that I cannot gather its sprays."

YEL. VETCH. "Those prickles are leaves on twigs, which have not come to perfection, for want of warmth and richness of soil. When examined closely, they appear like hardened leaf-buds. They are useful to the plant, in protecting it from the attacks of cattle; which, excepting donkeys, who have a particular fondness for such piquant food, would rather avoid it. The Furze is also called Gorse, and in some places, where it grows freely, it is pulled for firewood; the poor are glad to obtain leave to use it so."

Eva. "It is a handsome thing when the bush is green, and the flower is in full blow. But I think it is almost constantly flowering, for I can generally see some bushes with blossoms on them."

YEL. VETCH. "As I am above ground only part of the year, I do not know; but I always see it flowering, from the time my first leaves appear, till I retire for the winter. I daresay the Broom can tell you."

Broom. "Oh, yes; my friend the Furze is always gay, and I almost envy him his cheerful temper; for in the depth of winter, when most of our race are shut up in the earth, and I myself can only manage to stand quietly and just bear the cold, he is still green, and puts out some bright blossoms, looking merry and glad. I can tell you, many people love his cheerful face; and one man, a great botanist from Sweden, actually fell down on his knees and burst into tears of joy on seeing him for the first time.\* He tried hard to persuade the Furze to live in Sweden, and had a great deal of care taken of it; but I do not think it liked that country so well as it likes this."

Eva. "Thank you, Mr. Broom; and I can tell you that many people love you too; and when I was in Scotland, I heard a great deal of the bonny Broom."

Broom. "Oh, yes; in Scotland, I have

been told, my tribe covers large tracts of the hills. When I was a few years younger, a Scotch girl came and knelt beside me, and wound her arms round me, and kissed my flower; and quite surprised me by her delight at seeing me. When she had a little recovered her composure, she repeated to me, or perhaps to herself, some poetry, which I still remember."

> O the Broom, the bonny, bonny Broom, On my native hills it grows; I had rather see the bonny Broom, Than any flower that blows.

· It minds me of my native hills, Clad in the Heath and Fern; Of the green Strath, and the flowery Brae, Of the glen and rocky burn."

Eva. "And now I must have another good scamper among these bushes, and up and down the hillocks. I shall leave my flowers under your shade till I have done"

Eva (coming back after some time, with a few more flowers in her hand). "Here, my friend, Yellow Vetchling, I have

<sup>\*</sup> Minds is often used by the Scotch for reminds.

another cousin or two of yours. I thought you told me that the Vetches had all slender stems and tendrils; but here are some with flowers very like yours, all growing on a head, like Clover almost, and short firm stems. Are they Vetches?"

YEL. VETCH. "No; they are of the same group as the Clover, though their flowers are larger than the Clover blossoms, and not so thickly set. Look at their leaves, and you will see that they are trefoils. Their bright orange yellow flowers are very pretty. The leaves of the real Vetches are set in pairs on a stem, and by this you can generally tell the difference. I will not try to tell you the distinctive names of all you have found, for you would be tired long before I had done. If you dry your flowers, and write the name under each, which I daresay some friend will help you to do, you will soon learn them."

Eva. "I think I will. I have a great

### THE YELLOW VETCH.

book of dried flowers at home; and I am gonig to learn to draw flowers soon. Now I'm off again. I came back only to ask you that."

### THE STRAWBERRY.

ROSACEÆ. THE ROSE TRIBE.

"Pluck the wild Strawberry, and let it cool
Thy parched lip, and grateful moisture give;
And with its freshness inward musings bring
Of the blest Spirit; straitened by no rule
Of time or place. What matter where we live?
In duty's path God bids His blessings spring."

Eva. (in a wood chiefly of Fir-trees intersected by broad paths). "I wonder where they have all wandered to, this wood seems so large; I suppose people, can find plenty of paths to roam about; however, I know where mamma is, and I shall go back to her when I am tired. How solemn and quiet it is here, as if one ought not to laugh or speak loudly: I like it; it seems like a Sunday evening in our little plantation, so pleasant and happy. I wonder what the trees are

saying up there in their high branches; they seem whispering together, as they point up to the sky; and the birds are singing so clearly and softly. O, it is lovely here! and those shadows on the walk, how beautiful they are! I shall sing too." (Sings,)

"O, lovely are the woods and hills
In the joyous summer time;
How sweet to listen to the breeze,
And the brooklets' playful chime!

"How sweet to feel Thy lov, O Lord, Shineth through that azure sky; And that Thy presence fills this world, Dimly veiled to heart and eye.

"Thine is the beauty around us spread, Amid bright Flowers in sunny air; And in the deep wood's silent shade Thy Spirit moveth everywhere.

"Almost we think in whisp'ring leaves
Angels' voices sweet to hear,
Telling of Thee, their Lord and King,
And our own Saviour dear.

"O Lord, keep ever pure our hearts,
That no evil entering in,
Make us miss Thy signs around us,
Or Thy gentle voice within!"

Eva. (after sitting silent for a little while). "I wonder if there is any thing pretty on that green bank, by that narrow path. I will go and see; there seem no flowers here, or only very few. Ah, here are Strawberries! how delicious, how sweet they are! I did not think I should find any here. I must gather mamma my basket full, she likes Wood Strawberries. Now I will put a spray of the leaves and flower on the top; there, that is very pretty. I wonder if the Strawberries in our garden are of the same sort as these, only larger; the flower is just the same shape, with five petals, and a calyx divided into two rows, five large, and five small clefts."

STRAWBERRY. "I am the same plant as you have observed, but your Garden Strawberry has been made finer and larger by cultivation; I am found wild in many parts of the world, as well as in England; the children of the Alpine valleys, and those who live near woods

in France, go out and gather baskets of my fruit, which is larger and sweeter than generally it is found in England. I belong to a very large class of plants, called the Rose tribe, which you may know by their double row of clefts in the calyx, by their five petals inserted in it; and their stamens, in number twelve or more, also inserted on the calyx. The fruit is various, the Cherry, the hip of the Rose, the Apple and Pear, and the Strawberry and Blackberry, as well as others in form like them, belong to my order."

Eva. "What a number of fruits good to eat are in your order, almost all I know; for Raspberries are very like Blackberries, so of course they belong to it; and I suppose all sorts of Plums, for I know the flower of the Plum is like that of the Cherry in shape."

STRAWBERRY. Yes, the Plum, with all its varieties, and its wild ancestor, the Sloe, are of my order; so are the Peach, the Nectarine, the Apricot, and some

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foreign fruit-trees; the Cherry Laurel, and the Portugal Laurel, also among shrubs, and the Hawthorn."

Eva "You belong to a tribe of plants whose acquaintance I am very fond of then, for I like fruit very much. When I go to my desert island, which I talk about to myself sometimes, I will carry a number of the seeds of all these trees, and plant them. But I suppose there are some others besides what you have told me of. Are all the fruits good to eat?"

Strawberry. "No, there are some which are not fit to eat, being only the seeds of small plants: such are the Meadow Sweets; and some have a good deal of poison in them which renders them unwholesome. I would not advise you to try the fruit of the Portugal Laurel, nor would you find that of the Mountain Ash very nice."

Eva. "I have tasted Sloes, but I thought them very nasty; and Hawthorn berries and Hips are not nice, though

nurse says that her mother used to make a preserve of them; but I like Blackberries, though I think the fruit in the garden is better."

STRAWBERRY. "All fruits are better for cultivation, and in England the originals both of the Plum and Apple (the Sloe and Crab-Apple) are very harsh and disagreeable. In warmer climates the sun gives the fruit flavour and size, with less care from man. But I was going to tell you that many of the plants in this tribe, especially in the Almond group, have a great deal of poison in their seeds, bark, and leaves; it is called Prussic acid, and a little of it is nice to the taste; so that the kernels of Peaches, and Bitter Almonds, and the leaves of the Laurel are used in flavouring dishes. Sometimes careless persons, however, will put in too much, and then the poison shows itself in making those who partake of the things so flavoured ill."

Eva. "Your tribe, too, has many different groups, I suppose, since it is such a large one."

STRAWBERRY. "Oh, yes! there is the Almond group, the Meadow Sweet group, the Strawberry group, the Rose group, the Burnet group, and the Apple group."

Eva. "The Almond group has in it, I suppose, all the fruits with a kernel like an Almond: such as Cherries, Plums, Peaches, and Apricots."

Strawberry. "Yes, and you may know my group by a resemblance to me both in leaf and flower; though there are differences between us very easily discovered. The Bramble and Raspberry are my relations; also the Avens, and Cinquefoil, and others. In our seeds there are many varieties, as you may see by examining it; mine are enclosed partially in a soft pulp, the Raspberry and Blackberry have a separate case of pulp for each seed, and others have no pulp, but are set dry on the calyx: you can

see this last for yourself, as there is a Cinquefoil growing but a little way off on the bank."

Eva. "The Potentilla; I know it very well, and I have often thought it like you. It is very pretty, with its fragile yellow flower, just like yours in shape, and its five spreading leaflets; but the seed is a dry head."

Strawberry. "The Meadow Sweets I am very little acquainted with; I only once saw one of them, and we did not know much of each other. The plant I knew told me that she would much have preferred living in a meadow, near a stream, and that there she grew to great size and beauty, so that the name of Meadow Queen was given her."

Eva. "Oh, I know the Meadow Queen very well, we have plenty near our little river; the village girls put it in their hats sometimes, and weave it in their hair on holidays. I like the smell, it is rather like Almonds. The flowers

grow thick together on the top of a stiff stem; and, now I remember, the leaf is like yours. I have often gathered it for a nosegay; but I am so pleased to have found you, it is quite a treat to get a fruit that I may gather like the wild flowers for myself."

STRAWBERRY. "I am considered very wholesome, too, and often good for sick people; many times last summer, a little girl used to come early in the morning with a little basket, and gather it quite full of my fruit. She used to talk about a little sickly brother who liked Strawberries, and I believe it was for him she gathered them, for I never saw her eat any herself. One day she came here, very sad, with a pot of earth in her hand, and she said, she should not be able any more to come here to get the ripe fruit she had so often gathered, so she must carry away one or two plants to remind her of this place. She took up two fine young plants, which had rooted themselves from my runners, and put them in her pot. Poor child, I was very sorry for her, and would willingly have continued to supply her sick brother with my fruit, which, as she told me, sometimes, did him so much good."

Eva. "I dare say she will plant your little offsets in her garden, and then the berries will become sweeter and larger. But why are you called Strawberry; is it because your seeds look like little bits of straw sticking on the red pulp, or because the gardener puts straw round you to keep the fruit from the mould and dirt?"

STRAWBERRY. "I do not quite know; some people say it is so, and others that the name means Stray-berries, from the fruit hanging here and there."

Eva. "There are many different kinds of Strawberries in our garden. Do all come from such as you?"

STRAWBERRY. "Many do, and are enlarged and improved by the gardener's

care. He gets many varieties from our seed also; but some, no doubt, that you have, are descendants of foreign plants; all are merely varieties of the original."

Eva. "I wish the birds were not so fond of you. They sadly spoil our fruit, and peck the ripest and best; and the slugs also take a good share."

STRAWBERRY. "Still you get a good many, I daresay; and you must remember that God made herbs and fruits for the birds and the insects as well as for you, and not grudge them their part. It is not only the birds and the slugs, however, that share my fruit with you; there are a number of insects, almost too small for you to see were you to look closely, who live on it. Some of them are very pretty, and have very bright colours; if you could see them enlarged, you would admire them very much. I do not grudge them their enjoyment, but am pleased that such a little lowly thing as I am can provide food for so many living creatures. And,

little maid, is it not very good of God to allow you so much pleasure in sharing with His other creatures the feast He has made for all? You enjoy my beauty and fragrance as much as my taste; besides the delight of finding me out, and plucking my fruit. You have therefore more pleasure than the birds and the insects, who feed on me; and I hope you think of His goodness, and thank Him for all the happiness He gives you."

Eva. "I do indeed, sometimes; and I will try to think oftener that God made all the flowers and fruits I am so fond of, and has given them to us. Hark! I hear Papa's whistle; I must run off. I hope Mamma will like my basket of Wood Strawberries."

## THE ROSE AND APPLE.

(The Rose Tribe continued.)

WILD ROSE-STOCK.\* "I wonder why I have been taken from my native bank and planted here, near to so many fine trees and beautiful flowers. And why has the man who brought me here cut off so much of my branch, and made me a mere stick? I shall certainly not have any flowers this year, nor very likely next; and, oh, how sharp his knife was, as it cut me away without mercy from my parent bush. I was grieved to my very heart when, one by one, my young promising branches, which would have

<sup>\*</sup>There are several varieties of the Wild Rose, or Rosa Carmia, in England. Formerly it had the name of Canker Rose, from its being so inferior in beauty and scent to the Roses brought from other countries. The Eglantine of poetry, commonly called Sweetbriar grows wild in parts of England. The stems of the Rose Carmia are used to graft roses on intended to be standard bushes. Of roses there is an endless variety, they grow all over Europe, except far North, and there are kinds peculiar to each country.

been covered with flowers, were cut away. If they had been left on, I would have done my best to reward any care, by putting out good buds; but now I am so naked and ugly, that I wonder these beautiful trees do not turn away from me."

STANDARD ROSE-TREE. "No, sister, do not fear that we shall turn away from you, we are delighted to see you here, and most gladly welcome you; knowing that it must have been hard for you to be parted from your old stem, and to undergo so much cutting and pruning as you have done. But I can give you comfort, I think; and tell you something that will make you glad of all that has been done to you. Would you not like to bear flowers as large and beautiful as mine and my sisters here are?"

W. Rose. "You are very lovely indeed; but I could never produce such flowers. Mine are single and small, and very fragile."

S. Rose. "Will you not be surprised then to hear that we all were once like you, and grew wild in the hedges, as we chose? We have all been treated just as you are now, and very sorrowful we were when all our long sprays were cut off, and we were brought as mere sticks here; we thought our beauty gone for ever. But we could not mope and pine away when the sun shone so lovingly on us, and the soft rain came to nourish us, just as it did before. We knew we were meant to grow here, and we loved the sun, and the soft air, and tried to cheer each other; so, very soon, we took root, and found ourselves becoming strong and hearty. Then we put out branches, and hoped to flower well and freely, as we used to do; but, just as we all had got quite green, and strong shoots were forming, the gardener came and took off some of our best sprays, and then made a little slit in one or two of our branches, which he bound round with a fine soft strip of

#### A HAPPY UNION.

matting. Into this slit he put a bud from the roses in another part of the garden, and after all had been tied up carefully, he left us alone; only taking care to give us water when the weather was dry. Not a flower-bud of our own did he allow to form, and scarcely a shoot was left on us, except those which had received the strange bud. We wondered what would come of all this, and why a new bud, very different from our own, had been put in us; but, after some weeks, we found out. The bud received our sap, and grew and became a strong shoot in most of us; putting out leaves much larger than ours; and in the autumn, I found on mine a flower bud. By and by a beautiful rose came out, and then another, and another. The gardener praised them and looked much satisfied, and I was pleased too to find that I now bore flowers far more lovely than in my wild state. The next year more shoots came from the engrafted branch, and I gained the appearance of a

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cultivated Rose-tree; in the summer my head was covered with rich scented crimson Roses. How I rejoiced now that I had been taken from the hedge where I first grew, and had undergone so much cutting and pruning; and now when the gardener comes with his knife, I do not complain, though I feel sometimes sorry when a long branch is cut off, or a shoot I considered promising is taken away."

W. Rose. "But are not our single flowers considered more perfect than those produced by all this cultivation?"

S. Rose. "In one sense they are, as being more simple and natural; but graceful as are the wild sprays, all must allow that we in the garden are far more sweet and beautiful. When you have taken root here, and have received a new bud, you will not regret, dear sister, your wild state. I look to see you flourishing in great beauty next year. And it is not only we who have to suffer all this pruning and grafting before we are fit for

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the garden; but if you ask that Apple tree, who is just beginning to be covered with fruit, you will hear that he has had the same to bear."

APPLE-TREE. "Yes, my dear cousin; I should have been an almost barren and useless tree, had I not been treated much as you have heard the Rose describe. You may know perhaps my original stock in this country, the Crab tree."

W. Rose. "Oh yes, a Crab Appletree was my near neighbour in my native place. In the spring he looked very pretty, covered with his pink and white blossoms."

APPLE-TREE. "In beauty of blossom, I do not think I have gained much; but my fruit is wonderfully improved. You know, perhaps, how sour and small are the Crab Apples, not at all fit for use; well, had I been left so, that was the best fruit I should ever have borne; but I was planted here, and grafts from a good Apple made into me, and now

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I can offer rosy delicious fruit to the gardener."

W. Rose. "Then you were deprived of all your own boughs, like the Rose-tree."

APPLE-TREE. "Yes, my chief branches were cut off, and three stumps, as I may call them, left on the top of my stem; on these stumps, three small rods from a fine Apple were grafted, by being inserted in my wood, and covered well with clay, and bands of bass. At the end of some weeks, they rooted firmly, and being fed with all my juices, they grew strong, and became as closely joined, as if they were my own natural branches; so, instead of a sour hard Crab, I bore a juicy sweet Apple, and have often, in my heart, thanked the gardener for his pains."

W. Rose. "Thank you for your tale; I will be content now to wait, and bear the gardener's knife, since I, too, shall perhaps become, in time, as beautiful a bush as those I see near me; I do not

think, after seeing those lovely flowers, I should ever have been contented with my own poor ones."

APPLE-TREE. "If you look round, you will see many trees bearing rich fruit, whom you may have seen or heard of growing wild and barren.\* That beautiful purple Plum is from the original stock of the Sloe, or Blackthorn, which was, I dare say, a neighbour of yours; that Cherry tree loaded with crimson fruit, has a parent lovely indeed in spring, but producing nothing worth notice in autumn; and that Pear would have been equally barren, had it not been carefully pruned and grafted. So, you see, your relations have been treated as you now are, and flourish in consequence."

S. Rose. "And we may be grateful

<sup>\*</sup> It is a curious fact that the seeds of most of these fruit trees only produce barren or worthless trees, and require to be grafted before the fruit is good. The kernel of a Plum will only produce a Wild Plum or Sloe; the Peach and Apricot bear only small crude fruits till the grafting is done, and this is a very general rule.

that our tribe is so capable of improvement, and by care and cultivation can give to man so much beauty, fragrance, and delight."

APPLE-TREE. "And profit, too; for what a help to the poor man are Apples, and how great a boon to rich and poor are all the variety of fruits we afford in our tribe. You have only spoken of your beauty and fragrance, but in you, too, are many qualities useful to man besides."

W. Rose. "I have often seen the cottage children gather our hips for a conserve, which they say is good for coughs."

APPLE-TREE. "And the White Rose petals were once much esteemed as a medicine. I know not if in this country the same rich perfume is made, as in the East, of which both you and I are natives; perhaps this little maid, who has been sitting so quietly and listening to us, can tell."

Eva. "I know that Rose-water is

made in England, and mamma has a vase full of dried Rose-leaves, which are very sweet, but I suppose you mean the Attar of Roses, and that is not made in England. My uncle brought me a bottle of it when he came home from Persia; it is the most delicious scent I ever knew, and very strong. There are only a few drops in the little gilt bottle, and the box I keep it in is quite perfumed with it."

S. Rose. "Ah, in Persia, I have heard, we grow freely, and feel it our native home."

Eva. "My uncle told me that he has seen fields of Roses there, and walked in such beautiful Rose-gardens, listening to the nightingales. He saw the way, too, in which the Attar is made; and as you cannot know that, I will tell you. The Rose leaves are collected in very great quantities, and put in large casks, with water, in the sun, till by degrees a fine oil rises to the top, and this forms the Attar. Such a large quantity of leaves is wanted

to make a little Attar, that it is very costly, and I suppose that only in such a hot climate the sun has power to extract the oil."

APPLE-TREE. "Most likely; in those climates, as I have heard, the fruits are much superior to ours in flavour, their juices being, I suppose, more ripened; and those of our tribe, as the Peach, the Apricot, and myself, who belong to them as natives, are finer, doubtless, than in this northern country. Still we are happy to adapt ourselves, as far as we can, to any country where men wish us to grow, and we do our best to produce good fruit, though we may miss the warmer, brighter suns of a better climate."

Eva. "It seems that in England we have scarcely any fruits really natives, they have been brought from other countries."

APPLE-TREE. "Only, perhaps, some few crude and harsh ones, for cultivation is wanted to make up for the want of sun

and heat; but you have in abundance, however, the productions of other climates, and only need to take care of them, and train them, in order to enjoy their variety, and partake largely of the treasures of distant lands."

Eva. "I have sometimes wished I could have lived in some of those places where the Orange and the Fig grow wild, or in the West Indies, where there are such beautiful fruits, which we cannot grow at all here. How nice it would be to walk among trees full of fruit, and gather just as I pleased!"

APPLE-TREE. "You would not be sorry, I think, for many reasons to find yourself back in England. You, little English girl, would grow sadly pale and indolent in such a warm climate, and you would find a number of venemous insects and reptiles to spoil your pleasure in the woods. Though this country has not all the beauty of southern lands, it is free from many of their evils; and as you grow

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older, you will be more and more glad that you have England for your home."

Eva (to the Rose). "I need not ask you to tell me much about yourself, for I have seen so many of your sisters wild, and in the garden, too, white, red, pink, blush, yellow, crimson. I love them all, but most of all the Moss Rose. How very pretty that is, and how sweet. I like it better than all other Roses, the moss is like a veil round the bud. And I have read many tales about you, too. What do you think of a long war in England once being called the War of the Roses? Was it not strange to wear red and white Roses as a distinction in fighting and quarrels!"

Rose. "I am sure we are much fitter for occasions of love and happiness than for wars, and we had far rather be made into a wreath, such as you have just woven, than be put in a king's crown, if he were unjust or cruel."

Eva. "I have made this crown of red

and white Roses for Rosie. It is her birthday, and my cousins are coming to have tea and play with us. She is to be queen, of course; and I hope they will let me be her first lady, I think I ought, as I am her sister."

Rose. "I do not know about first or last, we flowers do not care where we stand, or who gets most notice. As long as we have enough rain and soil to make us grow, and sunshine to strengthen us, we are quite content; and if one bush gets more attention or care than the rest, we all feel glad for it, and every new flower or shoot on each other is a joy to us. And, little maid, we are glad to see you happy, and when you come smiling among us, we could smile for delight, too. sometimes we wonder what is the matter, for you look discontented, and not pleased. The other day I and my sisters asked each other what could be the matter, when you threw your flower-basket amongst us, and sat alone so sadly in the arbour." Eva. "Oh, I know, I was cross that day. Rosie had been teazing me, she would not have the play I wanted, and she would take my basket. I thought mamma would have scolded her, and I was cross because she only took her in doors."

Rose. "And you made yourself very unhappy, I suppose. Now if you had soothed your little sister, and loved her well enough to think first what she would like, you would very likely have made her good, and been happy with her. Look at that rose-bush near me, it is overhung by another; but it does not roughly push through it, or say it ought to have its own way. No, it yields, and sends out its shoots at the side, so as to get the sun and air without annoying its companion. I wish that children could feel all the love that glows in the heart of a Rose, they would be so happy!"

Eva. "I was sorry afterwards that I had been cross. I will try to-day to like

what they all like, and to think of Rosie's pleasure, that she may have a happy birthday. We shall have tea out in the arbour, and I am going to lend my own tea-set to Rosie, that she may make tea; and, afterwards, we shall play about. Oh, it is very nice! And now the queen's crown is made, and here is a Moss-Rosebud for her to hold, so goodbye."

Rose. "Goodbye, little girl. Be goodnatured, and you will be happy."

## THE HEMLOCK.

THE UMBELLIFEROUS TRIBE.

Plant renowned in ancient story,
When Athens, in her mood insane,
Sentenced her wisest and her best,
The fatal poison cup to drain.

Eva. "Here are some garden plants run wild, or perhaps they may be relations only to our garden vegetables. This looks just like our Carrot run to seed; and here is one very nearly like the Parsley; and I suppose this is Celery; and that Parsnip. I wonder how they got into this waste bit, or if they grow here naturally. They seem to be different, too, when I look closer, from ours. And here is the Keck, which the schoolboys make watermills of.

Hemlock. "That is only my common name; I am properly the Concime or Hemlock, and the poisonous qualities of my root have made me well known."

Eva. "Are you poisonous? You do not look very unlike the plants near the ditch there, and they must be, I think, of the same kind as some of our vegetables."

HEMLOCK. "That is true; we are all umbelliferous plants, but our properties are very various; and while some are wholesome and may be cultivated for food, others are only used in medicine, and possess poisonous qualities. Both myself and my name-sake, the Water-Hemlock, are very poisonous, and many people have been injured and killed by eating our roots. Only last year, two little girls and their brother were playing here, making watermills, as they called them, of my stalks, and digging for Earthnuts. They thought, I suppose, that as the root of the Bunium, or Earth-nut, was good to eat, other roots were so too; and

the boy dug up some of the Water Dropwort, or Hemlock, and eat part of them with his sisters. A few days after, I saw his mother, who often passed this way to market, crying very much, and heard her tell a neighbour that her little boy had died from eating a poisonous root, and the little girls were both unwell, but likely to recover, as they had taken less than he. I was very sorry for her, but I could not help the children eating these roots. I wished she had taught them how dangerous it is to taste wild roots and berries, and that they ought to ask before they eat a thing they did not know the nature of."

Eva. "Mamma always told me not to eat berries or leaves out of the hedges, she said it was a foolish habit always to be wanting to taste everything, and might do me a great deal of harm. My little cousin was just going to eat a berry of the Bella-donna Nightshade the other day, but nurse saw her,

and told her it was deadly poison. But how do people first find out whether roots and plants are good to eat?"

Hemlock. "One way is by trying if animals can eat them with safety, but this is not always a sure rule, for some animals can eat plants containing poison to other animals and man. Sheep eat my stalks and leaves eagerly, and goats will eat, without injury, another poisonous plant, the Hemlock Dropwort, so that it would not be quite safe to trust to this trial of the wholesomeness of a plant."

Eva. "I have read of people in strange countries giving fruits or roots to animals to try before they tasted them themselves, and if pigs or monkeys would eat them, and did not suffer afterwards, they thought it safe to use them as food. But perhaps the best way is to ask a botanist, as Captain Bligh did when he was going in his open boat among the Friendly Islands: only there

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is not always such a clever man at hand."

Hemlock. "Then you see it is a good thing for every one to have some knowledge of plants. But I must tell you that some plants of our tribe which are poisonous when wild, can, by cultivation and change to a better soil, become useful for food."

Eva. "You are not, I suppose, among those?"

Hemlock. "No; I am used by physicians in their medicines, as many poisonous plants are; but I am chiefly known as having furnished a deadly juice used by people many years ago for putting criminals to death."

Eva. "Was that the use they made of you? How strange, I suppose that was long ago."

Hemlock. "It was a very great many years ago, and not in this country. You have heard of Greece, perhaps?"

Eva. "Oh, yes; and I have seen it on the map. Did the Greeks use the

juice of your plant for poisoning people?"

Hemlock. "Yes, it was often given to persons condemned to death for their crimes, but sometimes innocent persons suffered in the same way; and one especially was made to drink the Hemlock juice, who rather deserved the love and thanks of his countrymen."

Eva. "Oh, who was that, do tell me?"

Hemlock. "His name was Socrates, and he was declared to be the wisest and best man of his time. He spent his life in trying to learn wisdom for himself, and in teaching others to love it, too; that wisdom, he meant, which makes men good and happy. He was very humble, and never thought himself to have become wise and good, as he wished to be, but always was longing to find out truth, and be better."

Eva. "If he was one of the old Greeks he was a heathen, I suppose. He must have been one of those wise

men whom our Saviour was speaking of, when he said that many kings and wise men had desired to see the things He was shewing His disciples."

Hemlock. "Socrates would have been, if it be possible to judge from his earnestness and humility in seeking truth and wisdom, most happy to have been taught them by the Great and Holy One you spoke of; he felt himself very ignorant, even in his advanced age, and confessed that he was only better than other men in knowing how little he knew. But he endeavoured to help and lead the young men of his acquaintance to be virtuous and wise, and was most kind and affectionate towards them."

Eva. "But how could he be punished for such a good life? Surely there was nothing in all this to make any one hate him."

Hemlock. "Athens had become very proud, and foolish too, so that the people allowed themselves to be ruled by men

who were neither wise nor good, and this ended in her being governed by a set of tyrants, whom her enemies put over her, and these men persuaded the Athenians that Socrates had spoken against their gods, and ought to die."

EVA. "And was there no one to stand up for him, and show how unjust this was?"

HEMLOCK, "He had some friends who attempted to save him, and he made a very good defence for himself, but the tyrants were powerful, and the people headstrong, so it was determined that he should drink the Hemlock cup. He was quite cheerful and patient about it, and behaved calmly and wisely to the last, conversing with his friends on the soul being immortal, and safe from the foes who could destroy the body. He cheered his friends and himself with this hope, though it was a very dim one to him; for you know he had not heard of anything better than the guesses of the wise heathen, and knew nothing of the truth.

When he was dead, the people were sorry for what they had done, and his name was held in great honour."

Eva. "I shall like to read about him, and I will ask mamma to find me his history. But you said just now that some plants of your tribe, though poisonous when wild, could be made wholesome by cultivation."

Hemlock. "Yes, many of my tribe are hurtful and unwholesome in a wild state, but as garden vegetables are nourishing and good." The Water Parsnip, if not poisonous, is unfit for food; but you probably know the Parsnip well which the gardener grows for your table."

Eva. "Yes; but I don't like it much, it is so sweet."

Hemlock. "However, it is reckoned very nourishing; and before Potatoes were much grown, it used to be considered very

<sup>\*</sup> There are several kinds of Parsnips, of which only the Water Parsnip is hurtful, and it differs in some respects from the other kinds. The Common Parsnip is easily improved by eultivation, and the Cow Parsnip is very nutritious.

valuable. Perhaps, now that the Potato fails so often, Parsnips may be more esteemed again. The Celery is poisonous when wild, and it is by blanching its stalks, that they are made eatable."

Eva. "How is that?"

Hemlock. "The qualities of all plants are much affected by light, and the poisonous parts of the stalks and leaves need light to mature them; so that when this is shut out, and they are kept in darkness, the poison is destroyed, and the hurtful juices from the root become harmless."

Eva. "But some roots are poisonous, though they grow under the earth."

Hemlock. "Very true, and you might not render every plant good for food, by merely blanching it; however, this is a fact in regard to Celery and some others, and the reason is, as I have told you, which you may understand better when you are older."

Eva. "Are the seeds of your tribe good to eat?"

Hemlock. "Those of the Parsley, the Caraway, the Coriander, and the Anise, are; they are used in flavouring cheese, bread, comfits, etc. Many plants of our race were much used for salads in old time, and a few still are, as the Chervil. Most are remarkable for their elegant leaves; the Parsley, you know, is used to garnish dishes, and the Carrot was employed to make a winter ornament when other green was scarce. The Fennel, too, besides being valued for flavouring, was used for decoration."

Eva. "I know all those very well. I have often had Caraway cake, and Caraway sugar plums, and once I tasted some Anise-bread, but it was not nice. I do not remember, though, ever having seen cheese with seeds in it."

Hemlock. "Perhaps it may not be made so now, but Parsley seeds were once thought to improve cheese, and give it a pleasant taste. There are one or two more of my relations you may know,

perhaps, when prepared for the table The Angelica, I believe, is a favourite sweet-meat."

Eva. "Oh, yes, I like it very much; my brother gave me some when he was last at home in the holidays. It looks like the stalk of a plant covered with sugar candy."

Hemlock. "It is the stalk of the Angelica, an umbelliferous plant; and its name was given it from the great virtues it was thought to possess in strengthening people, and keeping various disorders away. In Lapland it is much eaten now; and, like many of our tribe, it has a warming restorative effect. Then there is the Samphire, which grows on the rocks by the seaside."

Eva. "I saw that when I was staying in Devonshire with my Aunt. We were walking out one day, and some men passed us with baskets and ropes in their hands, and when Mamma asked them what they were going to do, they said they were

going to get birds' eggs and Samphire. We followed them, and saw one of them fasten a rope round his waist, and scramble down the cliff. It was so steep I could not look over; but presently he came up again with a basket of eggs and Samphire, and a young sea-gull. They told us that it was rather dangerous work to go down in this way, and in one part of the rocks, a boy had fallen and been killed. It seems to me, that all of your tribe are much alike in the appearance of the flower. I think I should know any of you at once as umbelliferous plants."

Hemlock. "In our general appearance we certainly are alike, all being distinguished by the umbels which hold up our blossom; but it often puzzles even clever botanists to know our different species, so carefully is it necessary to observe the various parts of each plant. You see we are all herbaceous, and grow from one to three or four feet in height, our stalks are hollow, and branch out into leaf and



Method of gathering samphire or sea-weed, from the rocks on the sea-coast.



flower stalks. Our leaves are finely divided, and very elegant in general, so that they are an ornament to the places where we grow. Our flowers are small, each placed on a short stalk, called an umbel, and clustering together in a flat head, of which the outer flowers are the largest. Our calyx is five cleft, but very small, our petals five, of which the outer are the largest, and the stamens are five, too. The ovary has two cells, and is covered by a round flat top, on which stand the pistils and stamens; and when the petals are fallen, you may see the two seed-vessels joined face to face by a stalk in the centre. These seed-vessels, or carpels, each contain one seed, and are striped with little black lines, which are really bags full of pungent oil. So far, we are all much alike; but it is a very difficult matter to find out the small peculiarities which distinguish each species. Every part of the flower-head, even the almost invisible parts of the

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seeds must be studied, if you want to know us thoroughly."

Eva. "Then I shall bring my microscope, and look at one or two of you at a time, so as to know you apart, and find out which are the nearest relations. It will be very amusing to bring all the sisters together in my drying-book, and then the cousins, and so on."

HEMLOCK. "You must have patience, however, for we are a family not easy to arrange, and you might easily mistake a near relation for a distant one. Do not, for instance, put me beside the Hemlock Water Dropwort, for we are not near connexions. I am a Conium, the celebrated Concion, as I believe, of the Greeks; and the other is an Ananthe. Take care to separate the poisonous Œtlinsa, Fool's Parsley, from the Petroselium, or Common Parsley, and the Sium Water Parsnip from the Pastinaca, the eatable Parsnip. The English name would often mislead you,

but if you take pains to learn the hard-looking Latin names, you will have a much surer guide. There are seven different species, in which you will find we are classed according to our umbels and fruits."

Eva. "You are trying to frighten me, Mr. Hemlock, or Conium, with all this hard work; but never mind, I shall try. I shall not forget you, at least, nor the use you were put to.

'Plant renowned in ancient story,
When Athens, in her mood insane,
Sentenced her wisest and her best
The fatal poison cup to drain.

'Thy deadly draught her greatest sage, Obedient to her blind decree, Drank calmly, while he tried to feel His spirit's immortality.

'The love of her who gave the doom,

Lent patience that sad cup to drain;

Not his the glowing hope to feel,

Which would a Christian's soul sustain.

'Though he had sought of Truth to learn,
And longed for Wisdom's heav'nly ray,
Yet in pursuing Virtue's track,
He groped his dim uncertain way.

## THE HEMLOCK.

- 'Few were the beams that shone to guide The heathen sage on life's dark road; And deepest gloom hung o'er the grave, And the departed soul's abode.
- O had he lived to see the day,
  When the true light on earth appeared,
  How had he welcomed the blest ray!
  How had the sight his spirit cheered!
- 'The Truth, the Wisdom which so long,
  With humble mind he darkly sought,
  In ample measure from the skies,
  To guide our footsteps have been brought.
- <sup>4</sup> A hope he knew not beams on us, Dispelling from life's path the gloom; Giving to sorrow deepest peace, And casting brightness round the tomb.
- <sup>4</sup> O, when we read of that meek sage, The fatal Hemlock cup who drank; Learn we with praise of heart and life, Our God for all His gifts to thank,"

## THE DANDELION

COMPOUND FLOWERS.

Eva (blowing the heads of some Dandelions, and scattering the seeds). "One o'clock?—no, two; that is very well One, two, three, four, that is a bad clock. I must have one o'clock strike now. There, a good puff will do it. One: not a single seed remains, there they all go. What will Farmer White say to me for scattering so many Dandelions!

Dance away, dance away,
In the clear autumn day,
Float away in the sky,
Now low and now high;
Sow your golden flowers
For spring's sunny hours;
They'll shine out gay and bright,
In the sunbeam's glad light;
When the winter is gone,
And fair summer comes on.

Again, one, two, three, four, five. Oh! what a tiresome clock! it is not that time, I am sure. Why will not those three go off? I suppose they are not ripe enough. How curiously they are stuck on to this little cap! Each one is like the point of a needle, with a little fluff to make it fly. I could fancy the fairies might make shuttlecocks of the Dandelion seeds, they would be very pretty ones. Or I think they must be fairy darts, and, by moonlight, the elves fight the gnats and the tiny insects when they want to get into the flowers. How different these seeds are to any I have been looking at lately. Most seeds have a little case, shut up, to hold them in, or are fastened on an ovary, and quietly drop into the ground near the old plant; but these have wings, and fly far away. Now I remember, the Thistle has the same sort of seed; for I watched it floating about many times last year. I suppose the seeds stay in this little cushion,

sticking like needle points, till they are quite ripe, and then the wind lifts them off, and they set out on their travels to settle in new places. But I wonder they ever settle at all, and are not blown about always till they spoil. They cannot pull off their wings when they want to stop, as the ants do."

Dandelion. "No; it is true we are very much at the mercy of the wind and weather, but that does not distress us; we are very light-hearted, and we find the wind generally wafts us very soon to a place we can settle in. The damp of the air soon clogs our wings, and the seeds fall to the ground; and then the first shower softens the earth, and we are washed in, to lie safe and set about our new life."

Eva. "How wonderful it is that there are so many ways of plants growing and increasing. Every plant, I think, has a different seed, and a way of getting sown, of its own."

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Dandelion. "I daresay it is so; I see a great variety in my neighbours here, and find that they have all different ways of growing, and enjoying the sun and air. We are very happy, I believe—I know I am—when the sun looks down and makes all my flowers glisten, and the soft Spring air blows gently about me."

Eva. "And do you shut up when it is cold or rainy, like the Buttercup and the Poppy."

Dandelion. "Yes, I fold my flower together close, that no damp may injure it; and you may observe, that while my seed is coming to perfection, the calyx folds very close, and shuts almost tight, to guard it. It is not till the seeds are ready to take flight, that the calyx bends back and withers, and leaves the full head to the action of the breezes. A cousin of mine, the Colt's-foot, is even more careful than I am, and you would be interested in watching his proceedings. When the bud is first formed, the stalk

bends down, so that any rain may run off from the calyx; then, when the flower opens, the stalk stands stiff and upright, holding the blossom up to receive all the rays of the sun. But as soon as the time comes for the petals to fade, and the seed to form, the stalk hangs down at the top again, the calyx again folds together, and so it remains till the seed is nearly ripe; then the head is raised once more upright, and the sun finishes maturing the seed, which soon is wafted away to sow new plants."

Eva. "How curious! how beautiful! What care God takes of everything, and how many ways He has of providing what is wanted! I should have thought all seeds might have been made in the same way, and ripened and been sown all alike."

Dandelion. "In the general formation of seed the same rule is observed, the same parts of the plant help to make it; but, as you say, there is wonderful variety

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in the shape, and colour, and size, and in the way each plant works, so to say, in preparing and sowing its seed. We give you a great deal of pleasure by our variety, and besides, we may teach you a good lesson, by showing you by what various ways our Creator works, and how He has countless means in His Hand to provide for every need, every changing want of His creatures. My seed, which has no case to protect it, would be destroyed, if, when the petals wither, it were left exposed to the wet and cold while ripening; but you see I keep my calyx closed, which is long enough completely to cover all parts of the seed, and do not open it till it is time for the sun to finish the work of preparing the seed, and for the wind to scatter it. You must have observed often how every different plant has sufficient care taken for its growth and increase, so that none are in danger of perishing, yet each, in a way perhaps peculiar to itself; so that not one

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### THE CREATOR'S GOODNESS.

can say, 'I am not cared for, because I have not the same arrangement and provision for my seeds that my neighbour has."

'Wisely Thou givest, all around,
Thine equal rays are resting found,
Yet, varying so on varying ground,
They pierce and strike,
That not two roseate cups are crowned
With dew alike.'"
CHRISTIAN YEAR.

Eva. "Oh! yes, I see that very well, and it makes me think of the words in the Bible, 'Consider the lilies of the field,' and 'If God so clothe the grass of the field . . . will He not much more clothe you!' He takes more care than I ever thought He did till I began looking at the flowers, for all of you; and I am sure he loves us better than you, and will take care we have all we want really."

Dandelion. "And you may learn to be contented, too, wherever you are, by looking at us. We grow wherever our seeds happen to fall; some in the rich meadow, some on the sunny bank, and

some by the dry road-side in the dust. But we always are cheerful alike, and lift up our golden heads to the sunshine, and smile a bright smile back again. I think God meant you to learn something from all this, but it is not for me, a poor little flower, to say much."

Eva. "Oh, I like you to teach me; and my little hymn says:—

'Come, my love, and do not spurn, From a little flower to learn.'

TAYLOR.

'Nor may we scorn too proudly wise
Your lowly lessons undescried,
By all but lowly eyes.
For ye could win th' admiring gaze,
Of Him who hearts and worlds surveys;
Your order wild, your fragrant maze,
He taught us how to prize.'

CHRISTIAN YEAR.

I think you very handsome, though you are a common flower."

Dandelion. "In England I am very common, but if you lived in some other countries, you might be as glad to see me as a gentleman who went to Australia,

and felt quite overjoyed to see one of my sisters growing in a botanic garden as a rare plant."

Eva. "He was glad, I suppose, to see it, because it reminded him of England. Papa told me, the other day, of a Scotch farmer he knew, who was so sorry to see no Thistles in Australia, that he actually sowed some, in remembrance of his own country. I am afraid his neighbours were not much obliged to him for doing so."

Dandelion. "But if any Finches like ours live in Australia, or if any were taken out along with the Sparrows, who went, as a Goldfinch told me one day, to help destroy the insects, they must have been glad to see the Thistle, for they like its seeds very much. Indeed, birds are very fond of eating our downy seed, and thin it a good deal. It is quite a harvest for them, especially for the Finches."

Eva. "So you supply food for the

birds. But are you any use to man also?"

Dandelion. "I am too inferior to the vegetables now used here to be much esteemed or employed, except now and then; but before Lettuces and the finer kinds of green vegetables were brought into England, my leaves were much sought after for salads, and thought not only pleasant but strengthening. Decoctions, too, were made from my shoots, and recommended in some disorders. I can speak well of my root as being highly flavoured, and no bad substitute for coffee, on the word of a lady who had tried it in America. She was telling her friend, as she passed me the other day, how that, having used up all her supply of coffee, in a back settlement in America, she remembered having heard that Dandelion roots, when roasted, had the flavour of coffee, and determined to try them. She carefully prepared them, and roasted, and then ground them, and was quite successful in making very good coffee; so that, afterwards, she preferred this to what was sold in the settlement. It is only in Spring, however, that the root has this peculiar flavour; and you might be disappointed were you to try it in Autumn."

Eva. "You look like a double flower; but I never saw any single Dandelions. Are you always like this?"

Dandelion. "I am not what you call a double flower, for that is one, which by art, or some peculiarity of soil, has changed its parts, gaining an increase of petals, instead of stamens, or in some way altering its natural proportions. But I am one of a tribe called Compound Flowers, which have a number of florets collected in one blossom. If you examine me carefully, you will find that each of what you might have called petals, has its own stigma, pistil, and stamens—is, in fact, a flower or floret perfect in itself. The lower part of each floret forms a sheath, containing the base of the pistil and

stamens. One calyx encloses all, as you see. But gather some of that Knapweed, and you will see our nature more plainly, for each floret is more distinct than mine, and more perfectly formed as a blossom."

Eva. "This flower! I thought it was a Thistle."

Dandelion. "Oh, no, the flower is a little like a Thistle, certainly; but the leaves and stem are quite different, and so is the calyx. There, you see, are a great number of perfect florets, all encircled by one calyx, of a scaly kind; each forms a seed, winged like mine and the Thistle."

Eva. "Then I can easily know the compound flowers, by finding that every floret, whether it looks like a perfect blossom or not, has its own separate parts. I see, that when I pull out what I thought were your petals, each has a pistil and stamens attached to it; now the petals of a Rose, or a Pink, come away without any of these."

Dandelion. "We are a rather large family divided into several sub-orders, but alike in our peculiar character of blossom. The large tribe of the Hawk-weeds, which I dare say you know well, belong to it. The Lettuce, Sow Thistle, Thistle, Chicory, Daisy, are all related to me; the latter is well worth your close acquaintance; but not being so nearly related to me as some of the rest, I cannot tell you much about her."

Eva. "Oh! I know the Daisy very well; she and I have been playmates ever since I can remember, but I will look closer at her now. The Hawkweed is like you, only the stem is very fine, and the flower more delicate. It is very pretty and bright."

Dandelion. "Some of the Hawk-weeds are less like me than those you are now speaking of, and there are a great variety of them—between twenty and thirty, I believe. I and those of our kind having notched flower leaves, as the

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Lettuce and Hawkweeds, are related to the Chicory, or Succory."

Eva. "I know that flower-

'And the Chicory flower like a blue cockade For a fairy knight befitting.'

Your flower leaves are very prettily cut or notched like the teeth of a tiny saw, and so are those of the Chicory. I shall easily remember that distinction."

Dandelion. "Then the florets of the Thistle and its relations are more like tubes, opening with divisions at the top; and those of the Daisy are smoothly quilled, or merely look like rays round the flower; but you must ask her to show you more about her, for she is well worth looking at."

Eva. "How did you get your name? it sounds such a funny one."

Dandelion. "My name is really Dent-de-lion, or Lion's Tooth; given me, I believe, because my florets were thought to have the shape of the tooth of that animal."

Eva. "I shall take in some of your leaves, and ask Mamma if I may have them dressed for a salad; I should like to taste them, and she often lets me have Water-Cress with my tea, so I dare say she will."

Dandelion. "You are welcome to them, but you will not find them very good now. In spring, they would not make a bad salad, and might be very wholesome."\* (Eva gathers the leaves, and runs away).

<sup>\*</sup>The root of the Dandelion is recommended by medical men to persons of weak digestion, and after attacks of jaundice. Tea of it is made by pouring boiling water on the roots.

# THE DAISY

#### COMPOUND FLOWERS.

# Eva (reading):—

"How many lyres have sung of thee, In thy low nest! How oft thy starry blossoms cheered The weary breast!

"How glad the children shout to find Thy gemlike flower! The earliest which Spring can take, To dress her bower.

"How bright thy countless troops appear, In Summer gay!
And cheer with meek and constant grace, Autumn's chill day!

"Proud dames have deigned in courtly halls
Thy flowers to wear;
With thee love little ones to deck
The infant's hair.

#### A DULL TIME.

"Amid the smooth green turf which lies,
Soft on the tomb;
Thou, gazing ever upwards tell'st
Of Hope to come.

"We love thee when our hearts are light,
And joy is nigh;
But, oh, in grief what comfort lies
In thy meek eye!

"For drinking gladsomeness and life,
From the Sun's beam,
Thou bidst us think what heavenly light,
On us doth stream."
C. M.

Eva. "And that is all Mamma has written. I wonder if she would have put any more verses if she had had time! Oh, dear! how dull everything is now she is gone away. I shall not care to look for any new flowers now I have not her to bring them to, and no one will care to see me dry them, or help me to arrange them. I wish she would have taken Rosie and me with her. She never left me before at home without her, and it is so miserable!"

Daisy. "Poor little girl, this is not the way you used to come to us last Autumn,

when you strung us together in necklaces, and talked so merrily to the Dandelion. What makes you cry now, and look so unhappy?"

Eva. "Oh, Mamma has been obliged to go abroad with Papa, because he has been so ill this last winter, and she has left Rosie and me here without her, and I do not know what to do. There is nobody like her to talk to, and sit with now."

Daisy. "But I saw a very kind-looking lady walking with you yesterday, who seemed listening to your chat, and trying to amuse you. I hope, little Eva, you are not discontented."

Eva "That was my Aunt, and she is very kind to us, and is going to stay here and be with us while Mamma and Papa are away; but it is not like having Mamma."

Daisy. "You cannot, I am sure, love anyone so well as her; but since she has been obliged to leave you for a time, do

not you think she would wish to know that you were trying to be contented and cheerful, and affectionate to your Aunt, instead of complaining that you cannot have her."

Eva. "Yes, she told me I must try and be good, and please Aunt and Nurse, and help Rosie to be good and happy; but I cannot help sometimes being so sorry that she is gone away."

Daisy. "Try, however, to do all she wishes; and think of how pleased she will be to hear that you have done so, and to see you improved when she comes back. The time will soon pass, and you will be very happy if, when she returns, you can feel that you have been trying to please her."

Eva. "I mean to do that, and to get on well with all my lessons, too, that she may see I have not been idle. But I feel so lonely sometimes, when I remember that she is not at home, and that I cannot go to her for everything."

Daisy. "Did she not teach you about

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your Father in Heaven, the great God who made us, and who is so good to us and to you, and always watches over you, and loves you? I thought I heard you telling the Dandelion that you knew He loved and cared for you more than for us."

Eva. "Oh, Mamma often talked to me of Him, and when she was going away, she told me to remember that He was always near me; and that I must think of Him taking care of me, and watching over me. Yes, I am happy when I recollect that."

Daisy. "We little flowers even, who can know so little of Him, love Him and praise Him; and when the sun shines down on us, as he does to-day, it is like His smile to us, and we are glad. You can know Him and praise Him much better than we; and you can feel His love in your heart, which makes it happy. While He is so good to you, then, you must not say you care for nothing, and are miserable."

Eva. "That was naughty of me, I will try not to be selfish and discontented. I know Mamma would not have gone away, but because dear Papa could not get well in England. Now I will fetch my microscope, and amuse myself with looking at you. I have heard you are very curiously made."

Daisy. "You will say so when you have seen me through your glass, for with the naked eye you cannot discover all the wonders of my flower."

Eva (runs away, and comes back after some time with her microscope). "I have been a long time gone, Mrs. Daisy, but when I got to the nursery, Rosie told me she could not dress her doll because the frock was torn, so I stayed to mend it for her. Now then let us look at you. Oh, how beautiful you are! Each of those tiny yellow dots in the middle of your flower is a perfect flower itself, and the white petals are only like a circle of rays round these little flowers, to ornament

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them and guard them. But how the white leaves sparkle, as if they were frosted with silver or crystal."

Daisy. "Most flower petals, when magnified, strongly show that very lovely appearance of frost-work sparkling on them; and till you have examined all parts of a plant with a good glass, you really do not know half the beauties they have to show. The stamens and pistils, the seeds and hairs, indeed, every part is well worth close examination, for it is wonderfully and beautifully made, and finished with a perfection which may well astonish you."

Eva. "You belong to the same order as the Dandelion, but your flower is very different from his. All his florets were strap-shaped, with the five stamens and pistil attached to them; but yours are like tubes, and contain the stamens and pistils. You have rays, too, all round, quite distinct from the florets."

Darsy. "Yes, we belong to the same

order, the Compound Flowers, but to different tribes. The Dandelion is of the Chicory tribe, I am of the Radiata, or Rayed. We are a large family, and are divided into three sub-orders, the Chicory, the Thistle, and the Corymbiferæ. This last has two other divisions, the tube-shaped florets, without rays, forming one; the other, having rays like myself, the Camomile, the Yarrow, and others. You can easily tell one sub-order from the other by these distinctions."

Eva. "Oh, yes, I shall know the first by the flowers being formed like the Dandelion; and the second is quite different, for the Thistle has tube-shaped florets branching out at the top, and larger round the edge than in the middle. Tell me a flower belonging to the first division of your sub-order?"

Daisy. "The Tansy is one of the most common, you may often see it growing by the way-side, in waste places The Hemp Agrimony, the Everlasting,

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and the Bur Marigold, are also of the same tribe. The flowers are not very ornamental, as the florets are so small, and have no rays to adorn them."

Eva. "The Tansy I have heard of before, and seen it sometimes. It used to be made into a pudding and sweet-meat, was it not?"

Daisy. "Very likely; many plants of our order were thought strengthening and valuable in medicine, or as confections. The Camomile is still much used for making a tea of, which many people find strengthening and good."

EVA. "I have had it sometimes to drink, and old Dame Moss grows plenty in her garden, and dries the flowers. She sells it to her neighbours for making tea of, and for the face-ache."

Daisy. "I heard the Dandelion telling you last Autumn, that his roots were sometimes used to make a drink from, of the flavour of Coffee; he might have also informed you, that the Chicory is largely

used for that purpose, being often mixed with real Coffee, and often sold separately to mix with it."

Eva. "Your seed grows very differently from that of the two first tribes of your order. I have often noticed it, for I like making Daisy chains of your heads, when the flower is withered."

Daisy. "Its mode of growing is, however, like them; each floret producing a single erect seed, but the feathery plume is wanting, which distinguishes the Chicory and Thistle tribes."

Eva. "I know some of your relations in the garden and fields, some larger and handsomer than you, the Ox-eyed Daisy, and the Chrysanthemum, but none I love so well. It is always like Spring come back, when you show yourself in the grass; you seem to tell the flowers it is here, as the cuckoo does the birds. I think everyone must be glad to see you."

Daisy. "I believe all who love the Spring and the flowers are glad to see me;

and many poets have sung of me, for humble as I am, I suppose they thought me a cheerful contented little thing, which gave them some happy feelings; and perhaps they felt how wonderfully God had made my small flower, and loved it for reminding them of His care and goodness."

EVA.

"" When Winter decks his few gray hairs,
Thee in the scanty wreath he wears;
Spring parts the clouds with softest airs,
That she may sun thee;
Whole Summer fields are thine by right,
And Autumn melancholy Wight,
Doth in thy crimson head delight,
When rains are on thee.' WORDSWORTH.

I should hardly have thought that court ladies would have worn your flowers, for though it is so very pretty and star-like, it does not look gay enough for them."

Daisy. "You have read, perhaps, of Margaret, the wife of King Henry VI. She was very fond of my flower, and wore it as her favourite ornament; and during the time of her prosperity, the

ladies of her court wore it in their hair and on their robes also. You know, very likely, that my name used to be the Margarita, or Marguerite, as it is in French."

Eva. "I remember that is the French word for Daisy, and it means a Pearl. So the Queen was named after you. I do not think her name and her character agreed very well; for I remember she was a proud woman, and not very gentle or meek."

Daisy. "She lived in very stormy times, and had to stand up for her husband's rights against his enemies, so that her character became, perhaps, in consequence, rather imperious and haughty. But, certainly, my name and flower agreed better with the gentle sweet temper and holy mind of Saint Margaret."

Eva. "Who was she? I never heard of her, do tell me."

Daisy. "I suppose you were too young last summer to take interest in the book your Papa and Mamma were reading, or you would have heard of her, when they

sat under this tree in the summer evenings and read aloud to each other."

Eva. "I do not think, I listened much. I had my garden to water, or Rosie to play with. But now I will listen if you can tell me about Saint Margaret."

Daisy. "I think, from what I heard. that more than one person is so called; but I will tell you of the Margaret I remember best, because she had most to do with me. She was the child of a priest at Antioch, where the people then worshipped the Sun; and, as I suppose, her mother died when she was a baby, she was brought up by a nurse in the country, and lived in the fields with the flowers and the sheep. I daresay she often made wreaths and garlands of my flowers while she was there; however, she grew up very good and gentle. Some people say her nurse was a Christian, and taught Margaret; and some say that after she had gone back to her Father and was a priestess, she learned from an aged

Christian minister to leave off worshipping idols, and to know the great God who made all. She became a Christian, and was more good and meek than before, and more loving to her Father. But the Emperor of Rome was determined that there should be no Christians in his empire, if he could help it; so he ordered that every one accused of being so should be put to death."

Eva. "Mamma has told me how cruel the heathen governors were to the Christians, and how they tried to destroy them all at times when they fancied some misfortunes had been caused by them. But Margaret was only a girl; did they wish to have her killed?"

Daisy. "The Governor of Antioch would willingly have spared her, for he loved the Gentle Margaret, and wished her to be his wife; but he could only save her life on condition that she should give up being a Christian, and go back to the idols."

Eva. "And that she would not do, of course. But what did her father say? How sorry he must have been!"

Daisy. "He was still a heathen, and he was grieved that his child had become a Christian, as well as that she should be in such danger. He tried to persuade her to do as the Emperor wished; but, though Margaret was a good and obedient daughter, she knew her duty to her Father in Heaven must be the first, and she refused to offer any honour to the false gods. The Governor tried very hard to persuade her also, but Margaret would not let him draw her to deny her Saviour, and she gave up all her hopes of being happy and great on earth, that she might live in Heaven. The Governor was very sorry, and many other people were sorry for her, for she was so good and gentle that she was much loved, but they could not save her, and she was put to death as a Christian. She was very patient in her prison, and though she was

grieved for her father's sake, yet she loved God so much, that she was glad to suffer for Him, and to go soon to Him."

Eva. "I like that story very much. I wonder if I should have been as brave as Margaret. I suppose her father was very sorry for her afterwards. When I see you, I shall remember about her, and how she suffered for being a Christian."

Daisy. "And though you may never have to go through dangers and sufferings like her because you are a Christian, you can be loving, and meek, and gentle, as she was; and be brave in bearing your little difficulties and troubles."

Eva. "I mean to try, indeed. And now it is nearly time for you to shut up your flowers. I see them beginning to close, so goodnight."

# THE WHITE DEAD NETTLE, OR ARCHANGEL.

THE LABIATE TRIBE.

Eva. "Here are some pretty flowers, I should like to make a nosegay of them, but they are Nettles, and I dont want to be stung."

ARCHANGEL. "You are giving us a bad character, and one we do not deserve, I assure you, little maid. Even if we wished to resist, or to punish an attack, we have not the power of hurting any one."

Eva. "But are not you Nettles? and do not all Nettles sting? Nurse called you the White Nettle, and the flower near you the Red Nettle." ARCHANGEL. "Then she left out part of our name, which might have helped you to discover that we are not real Stinging Nettles, for we are called Dead Nettles because we cannot sting. Indeed, I have always thought it a piece of great injustice that we should have the name of Nettle at all, as we are of a quite different order, and not at all related to the plant you seem so much afraid of."

Eva. "I do not like being stung, I am sure; and I hurt myself very much a little while ago in getting some violets. I forgot to take care of the Nettles, which grew close to the bank, and my arm was stung all over. But if you are not at all related to the real Nettle, why have you the same name?"

ARCHANGEL. "I suppose people, who did not take the trouble to examine our flowers, or look closely at us, thought our leaf so like that of the Urtica, or Stinging Nettle, that we must be only a variety of that plant, and they called us Dead Nettles

because we did not, like the Urtica, possess the sharp poisonous quality of stinging. I have heard other plants complain of similar injustice done them by a name which concealed their real character, and perhaps caused them to be classed among those they had no connection with. Our Latin names, however, have been more carefully given, and generally class us correctly. I am then, as well as my companions here, of the Lamiums, and my name is Lamium Album."

Eva. "Some of the Latin words I find so hard to say and remember, that I cannot use them; but Lamium is easy enough, and I will call you by that, if you like."

ARCHANGEL. "I have also another English name, which I do not object to, the Archangel. I do not know if you have ever examined the flower of the Urtica, but if you have, you may notice how very different we are."

Eva. "I never looked closely at it;

but I remember a greenish, dull-looking flower, not at all pretty, and very small, hanging in clusters from the Nettle-tops. You are very nice flowers, though you have no smell."

ARCHANGEL. "We belong to a large family, the Labiatæ, or Lipped Flowers, and while I believe there is scarcely one poisonous plant among us, there are many possessing very useful properties."

Eva. "You are called Labiatæ, I suppose, from the shape of your blossoms, which have two distinct parts, an upper, like a hood, and a lower. How nicely your stamens are sheltered under this hood, which comes quite over them, and keeps them dry and safe!"

ARCHANGEL. "Our family are known, as you say, by being lipped; and I, with some others, enjoy the privilege of having our upper lip shaped like a hood, so as to shelter the pistils and stamens. You have so disturbed me, by supposing me capable of stinging, that I really must tell

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you the marks by which you may know me and my connections, and so be in no danger of falling into this mistake again."

Eva. "It seems I have affronted you a good deal; but you know that, at first sight, one cannot tell even the character of flowers: I am quite willing to make a nearer acquaintance, and to hear what you have got to say."

ARCHANGEL. "We are easily known, for our appearance is peculiar. Now notice our stems. You see that, instead of being round like most plants, they are square; and if you gather a piece, you may notice that the inside fibres are strong and tough. Then our leaves (which are egg-shaped, and pointed in my case and that of some others, also,) are placed opposite to each other. The leaves of all our family are hairy and rough, though in shape and size they are different in different plants. Our flowers are labiate, or lipped, and the ovary is four-lobed, with the style rising from the centre, where the lobes or divisions meet. Besides this, we have most of us another peculiar mark, in two of our four stamens being long, and two short. Now, if you keep in mind these distinctions, I do not think you can mistake our family."

Eva. "The shape of your blossom is very clear, so that I do not think I shall be in any doubt about you now; and your square stalk and opposite leaves will help me also to know you all. But I suppose I shall find that you have many relations, different in many things from you."

Archangel. "To be sure I have. You do not think that such a large family as we are can all be alike. But you must not expect me to take the trouble to tell you about all my relations."

Eva. "Really, Mr. Lamium, I think you are not a very civil-spoken person, and, though you were so angry at being taken for a nettle, I must say you are a little sharp in your temper, and rough, as

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if there were some likeness between you. I see your stem and leaves are very hairy and rough, too."

ARCHANGEL. "I am a little rough, perhaps, but I meant no harm. I thought you might be an idle sort of child, who would expect me to save her the trouble of finding out what she could very well do by herself. However, if you only want me to help you, and tell you a little more about us, I am ready to do so. And first, you will notice that there are four groups into which we are divided, distinguished by the shape of the corolla, the calyx, and the four stamens."

Eva. "I wish you would tell me the name of a flower belonging to each group; then I will compare them together, and I shall know the distinctions."

Archangel. "That I can do; and you may run about here, and on the hill beyond, and you will find many of us. The first I shall tell you of is the Salvia, or Sage, which I daresay is growing on

the side of that chalky slope; it has a two-lipped calyx, and a corolla with a long hood and gaping."

Eva. "Oh, I know the Sage very well. Our gardener grows it for the kitchen, and I have often gathered it wild. Besides, the garden Salvia, which is so pretty, is of the same kind. I am very fond of it; and I think its bright blue or scarlet hood very beautiful. Do you know why it was called Sage? Did people think it would make them wise? if so, I ought to eat it that I may get a little wisdom in my head: Mamma used to say I wanted some very much."

Archangel. "My cousin Salvia was reputed to have many virtues, chiefly in promoting health; people were advised to eat it with butter and parsley, and other herbs, to strengthen themselves. Its name, Salvia, means safety, from its good qualities in this respect. Before the Tea from China was common in this country, Sage-tea was very much used.

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It has another good use, too; for the seeds, when steeped in water, yield a mucilage which, if placed within the eyelid for a few minutes, will help to get rid of any dust or speck which may have got into the eye."

Eva. "Oh, I will remember that. I should have been glad to have known it last week, for the wind blew some dust into my eye, and I could not get it out for two days. I will keep some Sageseed on purpose."

ARCHANGEL. "If you do, you might as well examine it with a microscope, it is so curious when moistened, that it would please you to observe it. Now, if you look a little way down this dry ditch, you may discover the Peppermint, though it is not yet in flower, as it comes out in August. It belongs to the Mint group, whose blossoms grow in whorls, close together round the stem. Its corolla is small, and nearly equal all round. You may know it by the strong smell it has."

Eva. "Mint is used, too, in the kitchen very much; Cook makes several things with it, and I believe the Peppermint-drops are flavoured with it."

ARCHANGEL. "There are several sorts of Mint; some with pink flowers, some nearly white, some lilac; but the whole group has much the same appearance, the calyx is five-toothed, and the corolla four-cleft, with stamens pointing upwards."

Eva. "Now I want to see what plants are growing on that chalky slope, where you told me I might find the Sage, so I will run and look. Ah, I know this, it is the Thyme, which the sheep and the bees love so well. Singing:—

"I know a bank whereon the wild Thyme blows, Where Oxlip and the nodding Violet grows, There sleeps the Fairy Queen."

ARCHANGEL. "The Thyme which you have brought is of our second group, and you see it has a two-lipped calyx, and the corolla has the upper lip notched, and the

lower three-cleft. The Thyme has several varieties, and all more or less aromatic; and, like the Sage and Mint, it is thought a very good condiment."

Eva. "What is this flower which grows in the ditch, with pretty Lilac flowers interspersed by two or three among the leaves at the head?"

ARCHANGEL. "That is the Bugle, belonging to the third group; it has a five-cleft calyx, and a very short upper lip, the lower projecting, and third-cleft."

Eva. "It looks like a bugle. Ah, I dare say it is what the fairy trumpeters use to blow with when the dance is to end. But they must find a nicer place than this to dance on, so they would have to fetch their Bugles, and carry them somewhere else."

Archangel. "I am of the fourth group, and as you have pretty well examined me, I think you may know any others of my near relations. I must just tell you that the Cat-Mint is of my group,

not of the Mint; for otherwise, the name would mislead you."

Eva. "I see the corolla is like yours, only small, and not equal like the Mint. I know the plant very well, for I got into disgrace with the gardener for letting my pussy go into the kitchen garden, and tear up some which he had set. She seemed to like it, for she rolled herself upon it, and eat some."

Archangel. "I believe Cats are fond of it when fresh planted, but I never see them touch it in the hedge. I suppose they do not smell it unless it is broken."

Eva. "Richard said he would sow it next time, and he repeated an old rhyme:—

'If you set it the cats will get it,
If you sow it the cats wont know it.'

Well, I think I shall remember your groups now. Yours is the handsomest as to the wild flowers, for all of you Dead Nettles are gay, and larger than most of the other plants. As to usefulness, perhaps

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the Sage, and Mint, and Thyme, excel you."

ARCHANGEL. "I do not know that. It is true that we Lamiums are not, perhaps, very useful; but there are some plants in our group that are much esteemed. The Horehound, for instance, is very good for coughs; and lozenges are made of it, which are very healing to persons suffering from such a complaint. The Betony also, a pinkish-lilac flower, is famous for its healing properties; and was thought good for a number of complaints. The Bastard Balm, a pretty plant with bright flowers of yellow, tinged on the lower lip with lilac, is said to have cured wounds in a wonderfully short time; and I might name the Wound-wort, and the Self-heal, and others, which are useful to the doctor."

Eva. "I beg your pardon for thinking you of no use, and if I go to my desert island I will certainly plant your tribe there, for it would never do to be without medicines. I shall go to old Dame Moss,

who makes all sorts of ointments and physics, and ask her if she knows about you."

ARCHANGEL. "Oh, we know the dame very well. She often comes along here collecting herbs, she will be able to tell you a good deal about us; but, perhaps she may call us by rather funny names."

Eva. "But if she shows me the plants, I can find out the names at home. You have taught me to be careful about mistaking the English ones."

ARCHANGEL. And also, I hope, about judging too quickly from mere appearance. You looked at our leaves and stems carelessly, and thought us Stinging Nettles; and so a hasty judgment at first sight often leads people into error on other matters than the nature of flowers. Ah, little girl, be slow and gentle in judging, and you may find under a rough outside much that is good and useful."

Eva. "Mamma said that to me once,

#### THE ARCHANGEL.

but she added that people might as well always try to be gentle also, and not think it an excuse for roughness that they mean well and are kind at heart."

# THE PIMPERNEL.

PRIMULACÆ. PRIMROSE TRIBE.

"Hail graceful plant! well-pleased we mark
Thy full-expanded flowers;
And read in their bright scarlet leaves,
The pledge of sunny hours."
C. M.

Eva. "It is cloudy now, will it be a fine day, I wonder? Oh, I hope it is not going to rain. The clouds are very gray and soft, and they look high up in the sky. And there is a little bit of blue sky! I wish I knew whether it will rain or not, it would spoil all our pleasure if it did. I will look for a plant of the Shepherd's Weather Glass, and see if its flowers are opening. Yes, how delightful! here are some half open, and one quite; it will be fine, I know, for I never found

these flowers opening when it was going to rain. Now I will wait patiently till it is time to put on my hat. I shall hear John bring out the carriage and horses, and then I can go in and let nurse finish getting me ready. You are a very useful plant, Mr. Pimpernel, and deserve your name better than the Shepherd's Purse, or the Shepherd's Needle, for they only look like the shape of a purse or a needle, and are no use; but you really do tell what the weather will be. Do you dislike the rain very much, as you always shut your blossoms closely when a shower is coming?"

PIMPERNEL. "I do not dislike the rain at all, for it nourishes my root, and makes me grow; but I should very much mind getting my blossoms wet, so I shut them up when I feel showers are coming. I believe I dislike a drop of rain on my flower more than most plants, for though many will shut up on a wet day, I am the most particular about it, and never risk letting any rain fall on my petals.

I enjoy a bright blue sky, and only expand fully when the sun is going to shine out."

Eva. "I know many flowers shut up in wet weather: the Daisy, the Buttercup, the Hawkweeds, and the Convolvolus, all fold their petals together, and seem to sleep when it is raining; but you do not open at all unless it is going to be fine, so you tell beforehand what weather it will be."

PIMPERNEL. "And I close long before a shower falls, if the day changes; but if you see me on a doubtful morning with my flowers open, you may venture out without fear. Have you ever noticed how most of us flowers enjoy the early morning, and how many close after the middle of the day?"

Eva. "Yes, if I go out early, I find almost all the flowers opening, and looking so bright and merry, and they go to sleep quite early in the afternoon. But some shut up much earlier than others."

PIMPERNEL. "Yes, and at different hours; so that some people have amused themselves by making a flower clock, so as to know the time by remarking what flowers had opened, and what had closed."

EVA. "That would only do for summer time, but it would be amusing to watch the bed-time of the flowers. I have often noticed that some keep open later than others."

PIMPERNEL. "The Goat's Beard shuts up about ten in the morning, the Hawk-weed early in the afternoon, the Daisy towards evening, and the Poppy before sunset. I always fold my petals early in the afternoon, and the Convolvolus is seldom to be found open after the sun gets low in the sky. But there are a few flowers which prefer the night, though I cannot understand why they should do so."

Eva. "It is very strange, I think; but I remember there is the Pea Stock

which opens at night; and once, when I was in the green-house of one of Mamma's friends, she showed me a plant called the Night Blowing Cereus, and told me it had a very beautiful flower, which expanded at midnight. Of course, I was in bed long before it opened."

PIMPERNEL. "Yes, it is far better for little girls to open their eyes in the morning early, with the Daisies and Buttercups—when all is fresh—than to be up late at night; but still it is very good of our Creator to provide some flowers even to cheer the night."

Eva. "Are you a relation of the Anagallis, which the gardener grows in our flower-beds? It looks just like you in shape, and the stem and leaf are like yours, but it is blue."

PIMPERNEL. "It is only a variety of our tribe. The flower is larger than mine, very likely, because the richer soil of the garden, and the gardener's care, improve the blossoms; but otherwise it is

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very like me. I am also called the Anagallis, though you know me by my common English names. As to the colour, that, you know, is often different in the same species of plant; and another of our family is white. A change of soil, or other causes, will produce a variety of colour."

Eva. "Are there many varieties of your tribe, and is it a large one?"

PIMPERNEL. "My species is not a very large one, nor has it much variety. We all have the same slight angular stalk and heart-shaped leaves, spotted a little with black dots. Our flowers are much alike in form, too. But I belong to the Primrose Tribe, in which, as you know, there is a good deal of variety, though not so much as in some other orders."

Eva. "Do you, indeed? I should not have thought you and the Primrose much alike."

PIMPERNEL. "Yes, we have our calyx five-cleft, or now and then, but rarely, four-

cleft, and remaining always on the stem. Our corolla has as many lobes or divisions as the calyx, the stamens are the same number, and placed opposite the lobes. We have one style, and a one-celled ovary and capsule (the latter opens with valves), and our stigma is capped. The seeds are many in number, and cluster round a centre column. In these points our order agrees in nearly every plant; but you know, of course, that each species has some peculiarities of its own. I am very unlike in my way of growth—my leaf and root, for instance—to the Primrose."

Eva. "You are indeed. The Primrose has a thick root, with fibres growing from it; and yours is creeping. The Primrose leaves are long, and egg-shaped, and wrinkled; yours are smooth, and very delicate, and grow not from the root like hers, but opposite one another; and her flowers stand up on a hairy stem from the root, while yours make a delicate wreath on your creeping stalk. But

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I see the shape of your calyx is like in its divisions, though it spreads out like a wheel, and so is the corolla. What a pretty round ovary you have, like a tiny box or a top, for it has its little stigma standing on it. I suppose the calyx makes the case for the seeds; or, no, I see it is only an outer one. What funny tiny things they are, all clustered so thick together; I cannot see the ovary of the Primrose, it is hid down so deep within that long calyx she has."

PIMPERNEL. "Yes, you must open the calyx to discover it, for only the top of the style is plainly to be seen above. The Primrose keeps her stamens and stigma close hid in her long tube, you can only just see them peeping up. I have a much greater likeness to the Loosestrife, or Lysimachia, which in the form of its flower very nearly resembles me; and one kind, the Wood Loosestrife, grows very like me. The flowers are bright yellow."

Eva. "I do not know that plant; where does it grow?"

PIMPERNEL. "The Great Yellow Loosestrife grows occasionally by the side of streams, but is not very common; the Yellow Pimpernel, or Wood Loosestrife, which is so like me, grows in woods; and the Creeping Loosestrife, or Money Wort, is fond of old walls or banks, and the side of ditches."

Eva. "I will look for them; I like finding new plants so much. I wonder if I shall see any when we are in the woods to-day. It is almost too late for any Primroses now; but I made such beautiful wreaths of them at Easter, and nosegays, too."

PIMPERNEL. "It is too early yet for the Loosestrife, you will not find it till June and July. I have only come out lately, and I am always earlier than my cousins."

Eva. "I am so sorry when the Primroses go, they are such dear flowers; Rosie and I said we would make the

nursery quite gay for Easter, so we asked nurse to take us into a cleared wood, a good way off, where they grow in quantities, and we filled our baskets as full as they could hold; then, as we came back, we saw some growing in such a lovely place, on a bank above a clear stream, clustering like stars in the midst of the Green Moss and leaves, and looking down into the water where they were reflected. O, it was so beautiful! and when we came home, we made our wreaths and nosegays, and the nursery looked so pretty.

'O bring ye flowers for the Easter morn; The perfumed Violet seek; The starry Daisy with upward eye; The Primrose pale and meek.

'The winter had laid his seal of frost,
And bound in their tomb the flowers;
But they waken now to the sunbeam's touch,
And the breath of spring's warm hours.

'The Primrose root was a withered thing, Nor leaf nor bud might appear; Now look how in radiant clusters bright, And twinkling her blossoms fair.



As we came back, we saw some growing in such a lovely place, on a bank above a clear stream, looking like stars in the midst of the green moss.

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### ALPINE BEAUTIES.

From their lowly bed, in the ice-sealed ground Have risen earth's children sweet; And in their freshest loveliest dress
The Easter morning greet.

'O bring ye flowers for the Easter morn; And think, as their wreath ye twine, Of Him whom the grave could not retain, Nor the sealed tomb confine.

'For they, of His renewing power,
Give glad token year by year;
And of the hope of His sleeping saints,
Speak in whispers soft and clear.'

Mamma, in a letter she wrote to me, said that she had seen among the Alps such quantities of beautiful flowers, and especially Primroses. They grew thickly, almost beneath the snow, and as soon as that had melted they came out, yellow, and white, and blue, and Cowslips and Oxslips, too."

PIMPERNEL. "Though the Primrose is not so large a family as many other flowers, there are several varieties in it. You know that the Polyanthus and the Auricula belong to it, and there are besides several different sorts of Primrose which belong to various countries."

Eva. "I know the gardener has some Chinese Primroses in the green-house, and there are plenty of Primulas and Polyanthus in the beds; they are all very pretty, and come so early in the spring, we are doubly glad to see them."

PIMPERNEL. "Yes, and the Cowslips make the meadows very gay a little later. All this tribe prefer rather cold countries, and grow in the northern latitudes. I cannot say that they have any great virtues as food or medicine, though Cowslip tea is much liked by some people, and thought useful as a drink in spring."

Eva. "People used to be very fond of making drinks for their health in spring. I should not mind Cowslip tea at all, and now and then I have made some in play; but we have very few Cowslips here, though there are plenty of Primroses."

PIMPERNEL. "I have heard the Cowslip say, she preferred a clay soil, and that here she could not find any really to her mind. All flowers have some favourite soil on which they grow better than on any other. Chalk is preferred by a great many; others like stiff clays, though these are not many; and others like a rich soil, mixed of sand, and clay, and loam."

Eva. "And there are the water-plants, and the bog-plants, and the sea-plants."

PIMPERNEL. "Yes, every place has its plants, and is ornamented with some kinds of flowers. I must just tell you, as you mentioned the bog-plants, that I have a very pretty cousin who is one of them; the Bog-Pimpernel. It is bright pink, and a rather rare plant; you would like, I think, to find it."

Eva. "I will look for it when I go to any boggy ground next time; I think I shall add to my account of the plants I dry, the places where I find them, and where they like best to grow. Where shall I put you down?"

PIMPERNEL. "O, I am not difficult to please, and grow very commonly; perhaps

I prefer a light sandy soil, or sand and clay, but I am not very particular. You will find, however, that many flowers are much more difficult to please, and your plan of writing down where you find them, and in what soils you have most often seen them, is a very good one."

Eva. "Hark! nurse is calling me, and I see John leading out the horses; I must run and get ready, for I do not like to make aunt wait. How fine the day is getting, we shall have plenty of sunshine. Goodbye, Mr. Pimpernel, you have amused me very nicely."

## NIGHTSHADE.

### SOLANCÆ TRIBE.

"There once was a garden grand and old,
Its stately walks were trodden by few;
And there in its driest and deepest mould
The dark-green poisonous Mandrake grew."
M. HOWITT.

Atropa Belladonna. "So you do not take any notice of me, little girl; do not you think me worth looking at or gathering? I should suppose you were not well acquainted with me, for I am a rare plant in general now."

Eva. "I do know you, however, though certainly I have not often seen you; but I remember you very well; for more than a year ago, in July, I was walking with my cousins, and one of them gathered your berries, and was going to

eat them, thinking they were cherries, had not nurse stopped her. Then Mamma told me to be careful not to play with your berries, nor the pretty scarlet ones of the other Nightshade, because they are so poisonous. She said she had heard of several people being killed by eating them, and that they caused great pain sometimes."

Atropa. "You are quite right not to meddle with my berries, for they are very dangerous; and perhaps it is as well that you should not gather me, for even my leaves possess poisonous qualities, and if you were to eat any of them, would certainly injure you. However, you may look at my flower, and I will tell you a little about myself and my relations, if you like it."

Eva. "Oh, Yes; I should like to know something about you very much. And tell me how it is that you are so poisonous, while the plants round you are harmless, or even good to eat."

ATROPA. "I do not know how this is; and I suspect you must be a good deal wiser than you are before you could understand, even if I were able to explain, how it is that plants growing on the same ground, and drinking the same rain, should have such very different properties. That is one of the things even very clever men would not know how to explain, I believe; but our Creator has given us a great variety of juices and qualities, no doubt for some good and wise purpose, and has wonderfully made us capable of using the soil and the rain to perfect in each of us our own."

Eva. "Are poisonous plants any use to us?"

Atropa. "Yes, they are much used by chemists in medicines, and are many of them very valuable for curing disorders, and assisting in surgical operations. The juice of my plant is used in operations, on the eye, for instance, as it has the power of dilating the pupil. It requires of course great knowledge and experience to use our juices, and it would be very dangerous for an ignorant person to deal with us in medicine."

Eva. "Would a person suffer great pain by taking your berries or leaves, as I have heard people did who were poisoned by the Indian arrows?"

Atropa. "I do not know that they would suffer much, for our juices are narcotic, and would rather send them into a heavy sleep from which they might not wake. But sometimes people who have eaten my berries have seemed as if intoxicated, and have been delirious for a time, even in cases when they recovered from the poisonous effects afterwards. The poison used by the Indians on their arrows is of quite a different kind, and procured from another tribe of plants; but it was used, as you know, to inflict wounds externally by means of darts and

arrows, and was harmless in many cases if swallowed, though causing intense pain through wounds."

Eva. "I read a little while ago how terribly Ojeda and some of his companions suffered from the poisoned arrows of the Indians, which gave them deadly wounds, with great pain. But I think the Spaniards were so cruel that they deserved it, and I do not wonder that the Indians tried every way to get rid of them. I could not help, however, admiring Ojeda's courage when he was wounded, in bearing so much pain in order to be cured."

Atropa. "There are, in Hindostan, a set of men who live by plunder, and who lay wait for travellers, and rob them by means of the seeds of the Datura, a plant of our tribe, which stupifies those who eat them. The robbers lie in wait at the resting-places of travellers, and contrive to drop some of the seeds of that plant into the food of their victims. The

travellers become insensible, and are plundered while incapable of defending themselves. If the dose has been a large one, the unhappy men die from its effects."

Eva. "I suppose the Datura is one of your foreign relations which is not found in England?"

Atropa. "It is found, though rarely, on waste ground or rubbish heaps, but is not a real native of this country; the flower is bell-shaped, and dusky white, growing upright from the calyx, the seed is curious, being covered with prickles, whence it has the name of Thorn Apple. This plant is used sometimes in medicines, and people have smoked it occasionally, for a kind of asthma, but its juice is so narcotic that doing so is dangerous."

Eva. "Your flower is quite unlike that of the common Nightshade, which hangs its dull purple flowers about the hedges, and has such bright scarlet berries in autumn."

ATROPA. "Yes that is the Solanum Dulcamara, a different species from me, and not so poisonous, though very dangerous to play with, as the stem, leaves, and fruit all contain poison; that and the Solanum Niger, or Black Nightshade, are both much more common than I am. You might not perhaps at first guess that we are related, as our flowers, fruit, and way of growing are so different; but I will show you how we resemble each other. The calyx, as you may observe, in mine and the other Nightshade is fivecleft, though in one or two specimens it may be four-cleft; the corolla consists of one petal, also five-cleft, and so deeply that you might fancy at first it had five petals; the stamens are five also, alternate with the divisions; we have one style, and the ovary has one or two on four cells; the berry also, and the seeds are numerous. If you examine any of our tribe you will find them agree in these points, though some grow with flowers

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upright on a stalk, like the Datura, and some have their blossoms hanging like the Solanum."

Eva. "The stamens of the Solanum are so closely joined together that they do not look like stamens till you examine them carefully. Yours are far apart."

Atropa. "So are those of the Datura and others; and my flowers grow very differently also to those of the Solanum, being like bells, with the corolla only cleft partially down its lengths, while the Common and Black Nightshade have corollas turning back from the stamens, and cleft up to the calyx."

Eva. "Can the Potato be of your tribe? Its blossom is very like that of the Solanum."

Atropa. "Yes, only it is a foreign species, though nearly related, I believe, to the Solanum here. You perhaps know that its fruit is poisonous."

Eva. "I remember Mamma told me that when first the Potato was brought

to England, in Queen Elizabeth's reign, people tried to boil the leaves and the fruit, but found neither good, and then after some time they tried the roots. She would not let Rosie play with the balls, or call them her doll's apples, for fear she should eat any."

Atropa. "There is a good deal of poison about the Potato plant, and certainly if you eat the seeds they would make you ill, though the boiled root is good. Boiling, however, often destroys the poisonous qualities of roots. I can show you another of our tribe, which is also very poisonous, for I see the Henbane growing on that heap of rubbish below me."

Eva. "What, this plant with the dull yellow flowers marked so much with veins, and such dark stamens?"

Atropa. "Yes, that is the Henbane, or Hyoscyamus; it is a poisonous-looking plant, and the smell is disagreeable. You may see it on waste places some-

times, and among rubbish or in neglected land. Like most of us, it is narcotic, and poisonous to most animals as well as to man; but swine will now and then eat its capsule, and goats are not injured by it."

Eva. "Its fruit is like a bean, I think."

Atropa. "It is so, and another name for the plant is Hog's Bean. I do not know if I have any other English relations, but some foreign plants of our tribe like the Potato have been brought over, and cultivated in England. One of these is so curious you would like to hear of it."

Eva. "What is that?"

Atropa. "The Mandrake, a plant which many years ago was thought much of, and believed to have wonderful properties.

Eva. "Oh, I have read about the Mandrake; it was once used to make charms of; and Mamma showed me a plant of it in a gentleman's garden, among some other curious plants. She

told me that the root used to be dug up—no, it was pulled up by the help of a dog—when the moon was full, and then cut into curious shapes, most like an old man with a long beard. People believed it could cure diseases, and charm away dangers, or help them against their enemies. I saw nothing very wonderful in it; it had dark green leaves, and looked poisonous, but that was all."

Atropa. "I believe the time is long past when the Mandrake was used for charms, and now it is rarely grown at all. I hope, too, that the time is past when our poisonous juices might be largely used to do harm. Men have made us serve their bad passions very often; but though we are not to be meddled with without caution, and are not fit to eat, we possess properties valuable for many things, and God no doubt intended us for good uses when He made us such as we are, and gave our peculiar qualities."

#### BELLADONNA.

Eva. "And though some people have been killed by your means, I dare say many more have been helped and cured. I shall not have a bad opinion of you because you are poisonous, but I will leave the chemists and doctors to gather you."

## THE EARLY PURPLE ORCHIS.

ORCHIDEÆ. ORCHIDEOUS TRIBE.

Eva. "How very hard these hyacinth roots are to get up from the ground! I have broken another plant off, and the root is still deep down in its hole. I must give up having any Blue-bells in my garden, unless Harris can get me some. My poor little arm is quite tired, and I am so hot! Ah! there is the Orchis in flower, the first I have seen this year. I will get up some roots of that, perhaps they are not buried so deep. I must not take those that are flowering, however, for they will not make my garden pretty, they will wither as soon as they are freshly planted. Here is a nice plant just come up, with a bud

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scarcely showing. Now for it. I hope I shall not break my trowel or cut the root in two. There, that is capital! a nice, perfect root, and a strong-looking plant. Now for another; I will take up three, and I shall have time to plant them before tea time. How glad I am I learnt my lessons for to-morrow before I came out. Now, here is some moss to pack them in, and they will be quite safe. But they cannot all be the same! this one has a spotted leaf, and this a broad sheath, pale green, and this a narrow green leaf. I wonder which is the same as the Orchis in flower; oh, the spotted leaf must be, and I will look for the other two, perhaps they are in flower near. Here is the broad-leaved one nearly open, but the narrow leaf is only shooting up."

EARLY PURPLE ORCHIS. "I do not think you will find any of my relations quite in their beauty yet; I am the earliest, and I have only lately found

the sun and air warm enough to venture on expanding my flowers. My Cousins prefer keeping in their winter quarters till summer is really come, and though it has been very warm for several days, they still fear the cold wind which so often chills us in this month of May."

Eva. "It is nearly June now, so I suppose they will begin to shoot up faster, and to open their buds soon. O! how glad I shall be when June is come, for Mamma and Papa will be travelling home then."

Orchis. "This broad-leaved plant, called the Great Brown-winged Orchis, ought to be in full bloom soon; and I see you have a spike of its flowers nearly open; but the other, the Green-winged Meadow Orchis, is later, and does not open till June. From May to the end of August, or later sometimes, you may find the varieties of our tribe growing in the meadows, or on chalky hills, which, by-the-by, we are especially fond

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of, generally, or in the woods. Our tastes differ as to the place we prefer. I like the meadows or woodland banks, so does the Green-winged Meadow Orchis; the Great Brown-winged is oftenest found on bushy hills or woodlands."

Eva. "I suppose there are many more of you?"

ORCHIS. "O yes. There are the Dwarf Dark-winged Orchis, the Military Orchis, the Monkey Orchis, the Marsh Orchis, the Spotted Palmate Orchis, the Pyramidal Orchis, the Lizard Orchis, besides many more of the same tribe, not so nearly related to me."

Eva. "And have all the same kind of flower, for if so I should know all, your shape is so peculiar? I mean I should not mistake you for any other tribe."

ORCHIS. "There are many varieties of shape, colour, and way of growth among us; but we all possess the same general character, and I do not think you could mistake us for another tribe."

Eva. "Your root is different from any I have seen, for the fibres come next to the part where the stalk springs out, and then there is a thick fleshy knob below. In this root I see there are two knobs, one much smaller than the other."

ORCHIS. "That small knob will make the fresh root for next year, and the older one will decay, so that the plant will come up in a different place next year to what it has done this."

Eva. "How strange! Then it will go on, I suppose, a step farther the year after, and so on. Why, at that rate, it might walk across the hill quite, in time, though one step a year is a slow pace. This knob is not like the bulb of a Crocus or Snowdrop, I suppose?"

ORCHIS. "It is unlike it in having the real root and fibres above it, while the bulbous roots, Hyacinths, Crocuses, Snowdrops, etc., have the fibres below, and also in this respect that those roots make an increase sometimes of three or more in a

year or two round the first bulb, while the Orchis loses its first in perfecting the second. But very likely these knobs serve something of the same purpose in nourishing the root, and providing substance for new plants. These knobs are generally of an oblong shape, and very similar; but in one kind, the Bird's Nest Orchis, the root is formed of a great number of small knobs tangled together."

Eva. "The leaves wrap round your stalk like sheaths, and it seems as if the stalk were almost made of folded leaves one over another."

ORCHIS. "There are a great number of leaves which fold round and guard the centre stalk, and they gradually unfold and open as the bud shoots up, so that some expand round the base and almost lie on the ground, others sheath the stalk upwards. You may observe that each flower has its own foot-stalk attaching it to the stem."

Eva. "I cannot tell what your flower

is like, it has such an irregular shape. There is no calyx, and the upper part is rather like a hood."

ORCHIS. "Our flowers are curious in shape, I allow, and different from many others you have seen. We have three sepals and three petals, all generally coloured nearly alike; but in some of my more distant relations the lower lip is so different from the rest of the blossom, that it gives it a singular appearance. You perhaps know the Bee Ophrys, which looks at a little distance as if a bee had crept half-way into the flower."

Eva. "No, I have never seen it, I hope I shall find it some day. It is not common here, is it?"

ORCHIS. "I do not think it is; but in some parts of Kent and Surrey, the Wye Downs, and the Downs above Box Hill, near Dorking, it grows freely. There are many kinds of Orchis which bear a resemblance to insects—as the Spider Orchis, the Fly, the Butterfly, the Gnat

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or Man Orchis. The Bee Ophrys is, however, the most perfect likeness. There is, also, the Lizard Orchis, which is very like the figure of that animal, but of a delicate lilac colour."

Eva. "Oh I should like to see that one, it must be so curious; but I have not seen here many of your tribe, besides those I have in my basket."

ORCHIS. "There is not enough chalky soil here to please those of my tribe I have just mentioned, and the Lizard Orchis is very rare now, even in spots at once liked. The botanists, I fear, in their eagerness to possess the plant, have taken so much of it as almost to destroy its existence."

Eva. "That is not fair, for they spoil the pleasure of many people who would like to see it growing wild. But you spoke just now of the Bee Ophrys not Orchis; is that another name for your tribe?"

Orchis. "I told you that I had many 238

relations not so near as the Orchides I named to you just now, and we are divided into many species, known by marks of difference which clever men have found in us, but which you could hardly understand yet. I will leave you to find them out for yourself by the help of books when you are rather older, and now will only tell you of one or two plants belonging to our order which you may find near here. Now, if you look in the wood not far off, you will see the large White Helliborine, a very beautiful flower, in shape rather unlike most of us, having its perianth spreading, and closing round the stamens, instead of standing upright; and the lower lip, instead of being the most prominent part of the flower, is shorter than the sepals. There are several varieties of the Helliborine, but all formed like the White; and if you have examined that, you will soon learn the others if you meet with them. The leaves are long and pointed, and shade

the flowers, each growing from the same joint with the footstalk near the head of the stem, while lower down they only spring from the stem. Then in the same wood. or indeed on this hill, you may see the Tway-blade, with its two broad leaves opposite each other, and its small flower in a spike shooting up between. The most splendid of our tribe in the size of its flower you will not find here, the Lady's Slipper; but perhaps some day though it is very rare, you may meet with it. It used to grow in the woods in Yorkshire, and has a large yellow pouch as its lower lip, while the sepals are widespreading and purple."

Eva. "Do people ever eat the knobs at your root, or make anything from them?"

Orchis. "My root, and that of the Green-winged Orchis, have been used for food; a very nourishing substance, called Salep, or Saloop, can be prepared from them, which is very good when made into

gruel. I suppose it is not much used now, for I have not heard of our species being planted or cultivated to supply it, but at one time it was highly thought of."

Eva. "I suppose it is not only in England that your tribe is found?"

ORCHIS. "Oh, no; we grow in many other countries. My own species are inhabitants of the Levant and Turkey, and I have many relations in those hot climates, where the Palm and the Breadfruit grow. Ah! you should see us there; we require no soil to nourish our roots, but grow on the fine old trees, just clinging to their mossy bark and branches, and hang our flowers about them in rich ornament. There we show varieties you would never dream of, and excite even the admiration of the rude savage, who stops on his hunting excursion to wonder at us as we wave over his head."

EVA. "Do you live only on air, then?"
ORCHIS. "We have the rain, and the nourishment of the bark or moss we grow

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among, but that is not much; and we certainly do live very much on breathing the air and the warm vapours of those tropical woods."

Eva "How I should like to see you there! But now I must go and plant my roots, or it will be time to go in, and they will wither, perhaps, by to-morrow. I want my garden to be very gay when Mamma comes home."

# COMMON RUSH.

JURACACEÆ. THE RUSH TRIBE.

"I can feel this hour, as if I lay
Adown 'neath the Hazel bushes,
And as if we wove, for pastime wild,
Our grenadier caps of rushes."

M. HOWITT.

Eva. "Now, Rosie, you can plait these Rushes which I have begun, and then I will twist them together into your cap; I shall soon have finished mine."

Rosie. "And shall we be ready to play then."

Eva. "No, not quite; we must have shields, you know, as well as caps, and we ought to have breast-plates, too, but I could not make them; and besides, I want to have a little fun in fighting as well, and

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it would take us too long to make everything."

Rosie. "But what shall we have for swords?"

Eva. "O, the Greeks had spears, and we will get the Bulrushes for that, they will be nice and strong."

Rosie. "You have talked so much about the Greeks all the afternoon, Eva, who were they?"

Eva. "O, famous fellows; I should have liked to have seen them, they were so brave, and they beat those foolish Persians, who thought because they were so many, they could get all Greece for themselves. It was delightful to read to Mamma all about the battle of Salamis this morning, I cannot think of anything else. I almost feel as if I could fight too."

Rosie. "You like your lessons, Eva, so much; I wish I did not have any to learn, I dont like them at all; I always want to go to my doll, or into the garden."

Eva. "You'll like them some day, when you can read well, Rosie; and you are fond of work now. Mamma says you make a better work-woman than I; but never mind that, we can have a good game now. I think I will be Leonidas, and defend the pass of Thermopylæ, which we will make that narrow path and the stile stand for; and you shall be Xerxes, and try to conquer me."

Rosie. "And which gets the better; I suppose you do?"

Eva. "No; Leonidas was killed, and all his men but one. O how I like the lines:—

'Go stranger, and at Lacedæmon tell, That here obedient to her laws we fell.'

Now, have you done your plaiting? Well, there's my cap, and we shall soon have the shields. I will get another bundle of rushes."

Rosie, throwing herself on the heap.

"How nice and soft they are. They would make a good bed."

Eva. "They used to be strewed over the floors before people had carpets in their rooms; so when a great man was going to have a dinner-party, the servants spread the floor with fresh rushes"

Rosie. "How funny it would be to see Robert strewing our dining-room all over with rushes, when there was going to be a party! I think carpets are nicer in doors."

Eva. "But then people were very untidy, and threw the bones and pieces of bread they did not want on the floor, so that the rushes were better for them than carpets, for they could be all carried away, and new ones strewn very often."

Rosie. "What can that man be gathering the Rushes for, down in the other field? He is making quite large heaps of them. Nobody has them now in the house, not even the poor people who cannot buy carpets."

Eva. "They don't have them thrown down just as they are cut; but you know when we go to see old Dame Moss, there are always some mats at her door, and before the fire-place. I am sure they are made of rushes, for she told me so one day; and she buys them of a man who comes round with his cart, and has brooms made of heather, and such things to sell. I daresay the man in that field is getting the Rushes for mats."

Rosie. "Look, I have peeled this large Rush, while you have been making my cap; how soft and white it is inside."

Eva. "That's the pith. Dont you remember the pretty little card box cousin Ellen gave me last year, all ornamented with pith."

Rosie. "O, the one with pink ribbons to tie it. I did not know that had this stuff on it."

Eva. "Yes, all the pretty ornaments

about it were made of pith, gummed on; and I have seen many other things like it: little doll's houses, and tiny bee-hives, made with pith, gummed on wood or cardboard."

Rosie. "Do you think these Rushes were the same kind as the old woman had to make her candles with, in the story you read me the other day?"

Eva. "What in 'Frank'? Yes, Mamma told me that these Rushes were much used for making a sort of candle called a Rushlight, which the poor people burn a good deal; and some time ago it was used to burn at night, because it did not give a strong light, and did not want to be snuffed."

Rosie. "Look what a strong band I have made of the Rushes, I cannot break it."

Eva. "It is quite a little rope. I believe people used to make ropes once of Rushes; but I think, to bear any hard work, they must have been stronger than these. See, here are your cap and

shield ready, you can put them on, and I will get a couple of Bulrushes from the next field. Don't come with me, for you might slip into the water, and nurse will not like you to wet your feet."

(Eva fetches the Bulrushes, and plays with Rosie for some time.)

Rosie. "There, Eva, we have fought a great many battles, and I am quite tired. I shall go in now, to nurse, and see how my doll is."

Eva. "Very well. I must come in soon, and learn my lessons; but I shall sit here a little while. (She pulls some of the Rushes from the stream, and sits down.) I wonder what this tuft is, which some of the Rushes have on their side."

COMMON. RUSH. "That is my flower." Eva. "Your flower! it is not much like a flower, it looks like a bunch of green points stuck on your side."

Rush. "Look at this one, where the flower is more open, you will see there

really are the parts of a blossom. It is true we have only a perianth, and not a distinct calyx and corolla; and our perianth is chaffy, of a brownish pink colour, so that it does not look like the flowers you have been accustomed to see. But you can observe it has six stamens fixed at the bottom of the small divisions or segments of the perianth, an ovary, a style, and three stigmas. The capsule has three valves, and contains many seeds."

Eva. "I see all this now I look closely at you, and there is something very pretty in your little tuft, or cockade. I never thought of that being the flower, as it grows at the side of the Rush, though I do not know where else it could grow; you seem to have only that single leaf, as I suppose I must call it."

RUSH. "Yes, that is our leaf, a very peculiar one, perhaps, and more like a grass leaf than that of any other plant, only it is cylindrical, and contains pith, which is not the case with blades of Grass. But do not suppose that each of us has a separate root. Several of these leaves grow from one root, in a cluster, as you may see if you look at us in the water."

Eva. "I did not notice that at first, for you all stand so thick together, that I did not see there were plants, each having a great many Rushes."

RUSH. "We are a very sociable race, and like, as the Grasses do, to cluster together, and spread over a large space. Our abode is on the borders of narrow streams, or in marshes, and we like the mud beside rivers, and multiply fast along their banks."

Eva. "And you, too, have some varieties in your family, I suppose?"

RUSH. "O yes, though we all have a strong family likeness, except one, the Asphodel, which has differed from us in bearing a golden flower. Ours are brown and chaffy, and vary most in their way of

growth, some having much finer leaves than mine, and branching out like sprays from them."

Eva. "Is there any of the Asphodel here?"

Rush. "There is a little near to where you pulled me up in the soft part of the bank which slopes into the stream. This is not a favorite spot with it, and there are only a few plants, but you will be able to see what it is like. The Asphodel grows freely on some boggy parts of Kent, and in marshes, both here and in foreign parts."

Eva. "It is very pretty, with its bright golden star. It has a separate stalk, I see, shooting up from the centre, and its leaves are flatter than yours, and like a blade of Grass at the top. I could only get a little bit, for the ground was so damp, and my feet sunk into it."

RUSH. "The Asphodel has been much admired, and often sung of by poets, who seem to have felt great delight in the

'yellow meads of Asphodel.' It is certainly the most ornamental of our tribe, though not so useful as others."

Eva. "Is the Bulrush, we have been playing with, one of your tribe?"

RUSH. "No; but you have given it a name which does not belong to it; it is really the Reed-mace, or Cat's-tail, and is of quite another order to ours, as you may observe by examining its flower and leaves."

Eva. "I do not know why I called it the Bulrush, except that in the picture of Moses in the river, the Rushes are drawn just like this; but perhaps the person who drew that had never been in Egypt to see real Bulrushes. Well, now I must go in, for it is almost time to learn my lessons. I will just gather a nosegay for Mamma as I go along. How pleasant it is to have her at home again, and Papa too, quite well. I hope he will not be ill next winter. How many flowers can I find now, I wonder. There

are the Wild Roses, and the Honeysuckle, and the Clematis in the hedge; and amongst the grass, Orchises, and Meadow sweet, and Ox-eyed Daisies, and many more. Now I have a nice bunch. How happy I have been among you, you sweet flowers; and since I have learned to know you each, I have loved you more than ever."

FLOWERS. "We have been glad to tell you our simple tale, and show you some of the wonders our Creator has hidden in our frail forms, and as we have been the playmates of your merry hours now you are a child, so we shall always be ready to brighten or soothe the time to come, if you seek us with the humble, simple mind of a child still. And when real troubles and cares come on you, oh, remember our lessons, and trust in Him who has cared for and wondrously fashioned the Grass of the field, and will much more care for you, His child. We soon fade and perish, and like us you will fade one day; but

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