

# The Mary Frances Garden Book



Adventures Among the Garden  
People by Jane Eyre Fryer

## PART THREE

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## CHAPTER XLIII

### HOW PLANTS GROW

“**W**HAT becomes, please, of the humus soup after the plant roots take it up?” asked Mary Frances thoughtfully.

“It’s a wonderful story,” Bouncing Bet spoke in her sweet voice. “You see, the plant food soup is carried up into the larger roots, into the sapwood of the tree, into the branches and into the leaves; and the leaves——”

“Give us shade!” Eleanor did not realize that she had interrupted.

“They do,” smiled Bet. “But that is not their work.”

“Oh, do leaves work?” Eleanor was surprised.

“They work very, very hard,” Bet replied. “They do such wonderful work that a leaf has been called a leaf factory, or a leaf-mill.”

“You think that leaves do not resemble the factories or mills you have seen,” went on the fairy. “It is not in appearance that they resemble mills and

[ 257 ]



factories, but in the work they do; for they manufacture starch. I suppose there is really no starch in the whole world that leaves have not made."

"Oh," exclaimed Mary Frances; "even the starch in our dresses—is that made by leaves?"

"Yes," Bet smiled, "even that; and the starch in your bread and the——"

"Tell them the story, Bet," said Jack, who was much interested.

"All right," answered the little fairy, turning to pick a leaf from the magic tree. "Please do not interrupt, and I will tell you about—"

#### THE LEAF-MILL

Nothing can grow without the right kind of food.

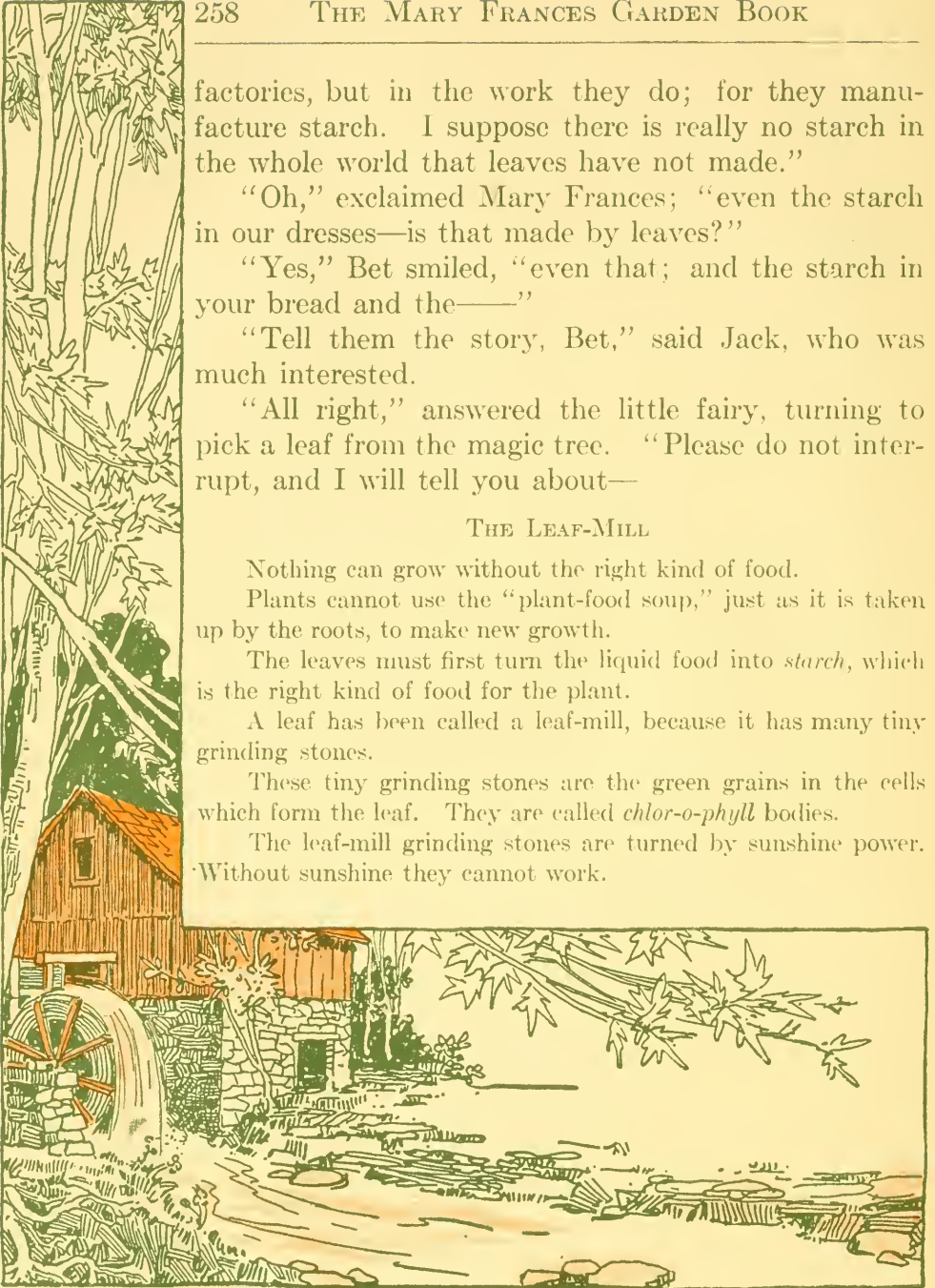
Plants cannot use the "plant-food soup," just as it is taken up by the roots, to make new growth.

The leaves must first turn the liquid food into *starch*, which is the right kind of food for the plant.

A leaf has been called a leaf-mill, because it has many tiny grinding stones.

These tiny grinding stones are the green grains in the cells which form the leaf. They are called *chlor-o-phyll* bodies.

The leaf-mill grinding stones are turned by sunshine power. Without sunshine they cannot work.



By the leaf-mill grinding stones, a gas from the air (carbonic acid gas) is mixed with the plant food soup sent up by the plant's roots, and starch is formed.

While doing the work of manufacturing starch, the leaf-mill throws off into the air another gas, called oxygen. Oxygen is needed by all animals; carbonic acid gas (or carbon dioxide) is needed by all plants whose leaves make starch.

But even the starch must be changed before the plant can use it to make new growth. It must be made into sugar!

So the leaves act as stomachs, and digest the starch they have made for the plant's use. In them, in some wonderful way, the starch is changed into sugar, and some mineral matter from the humus soup is mixed with the sugar. This combination forms a perfect food, ready for the plant to make into new growth.

"Isn't it a wonderful story?" asked Bouncing Bet, as she finished speaking.

"It's the most surprising garden story I've yet heard," declared Mary Frances.

"I'll never, never think of leaves again as just 'for shade,'" declared Eleanor. "But I'm glad they do give shade," she added.

"Trees give a great deal of shade," said Bet, "because they expose as large a surface of leaves as possible to the sun. On a large tree, nearly half



an acre of leaf surface may be in the sunlight at once."

"And the sunlight turns the grinding-stones of the leaf-mill," said Mary Frances softly.

"And they make food for the tree," Eleanor whispered.

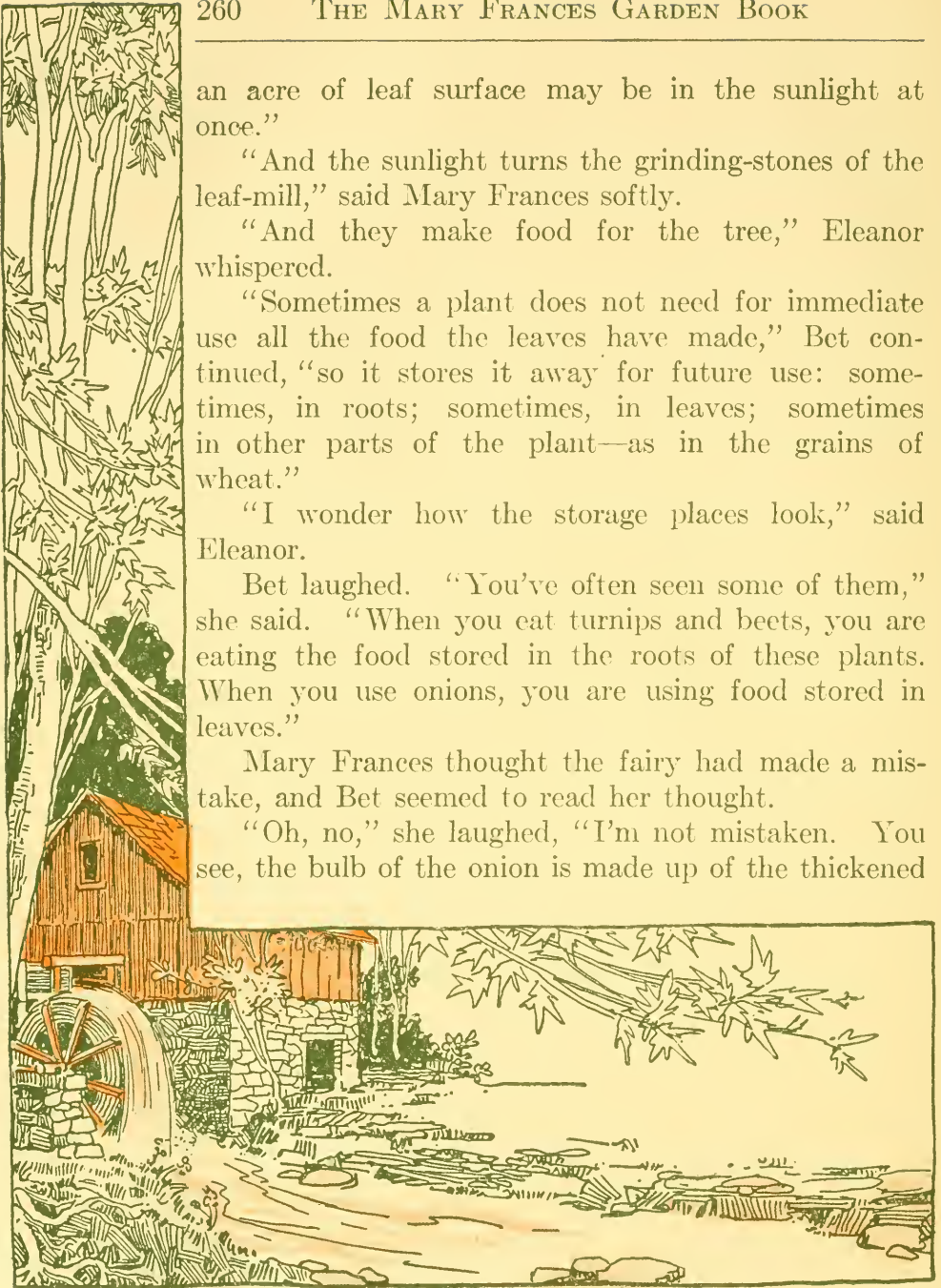
"Sometimes a plant does not need for immediate use all the food the leaves have made," Bet continued, "so it stores it away for future use: sometimes, in roots; sometimes, in leaves; sometimes in other parts of the plant—as in the grains of wheat."

"I wonder how the storage places look," said Eleanor.

Bet laughed. "You've often seen some of them," she said. "When you eat turnips and beets, you are eating the food stored in the roots of these plants. When you use onions, you are using food stored in leaves."

Mary Frances thought the fairy had made a mistake, and Bet seemed to read her thought.

"Oh, no," she laughed, "I'm not mistaken. You see, the bulb of the onion is made up of the thickened



lower ends of the leaves, the top green parts of which have dried off."

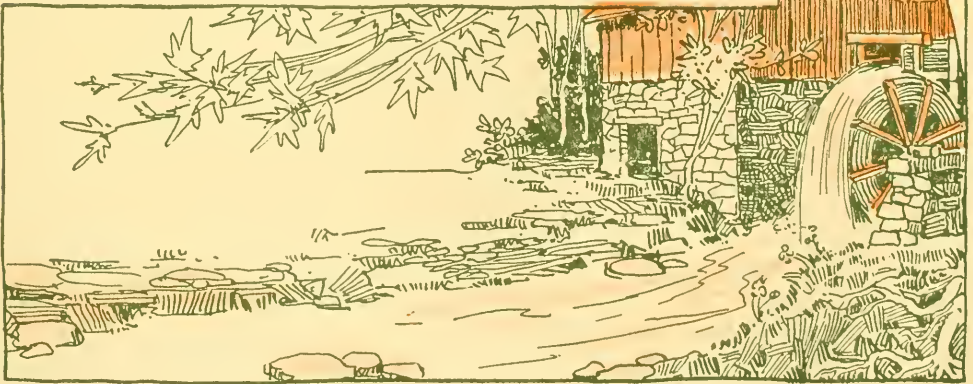
"It is interesting," she went on, "to see how quickly the plants which have stored food begin to grow when put into the warm place. It is because of this fact that bulbous flowers are the first to bloom in the Spring. They do not have to make food to begin to grow, for their food is ready for use, and just a little warmth and moisture will start them."

"Oh, I see why crocuses, and hyacinths, and tulips bloom so early," said Mary Frances.

"Yes," nodded Bet, "and it is an interesting experiment to make a carrot hanging basket. Cut the top off a large carrot and scoop out a hollow. Fill the hollow with water, and hang the carrot in a warm room. The beautiful green leaves will soon grow, using the material stored in the root for food."

Just at this point, Jack stepped forward.

"I'm sorry," said he, "to interrupt such an interesting lesson, but as we have so little time, by your leave, Bet, I will commence my story about some of our most peculiar relatives—if the young ladies would enjoy hearing about them."



## CHAPTER XLIV

### A WICKED INNKEEPER

“**I**NDEED, we would enjoy hearing about them,” declared both the girls.

“Before I begin to tell you about our peculiar relatives, some of which kill, some of which steal——”

“Oh!” gasped Eleanor.

“Oh!” muttered Mary Frances.

Just at that moment out of the bushes ran the tiniest, littlest bit of a dog that ever lived.

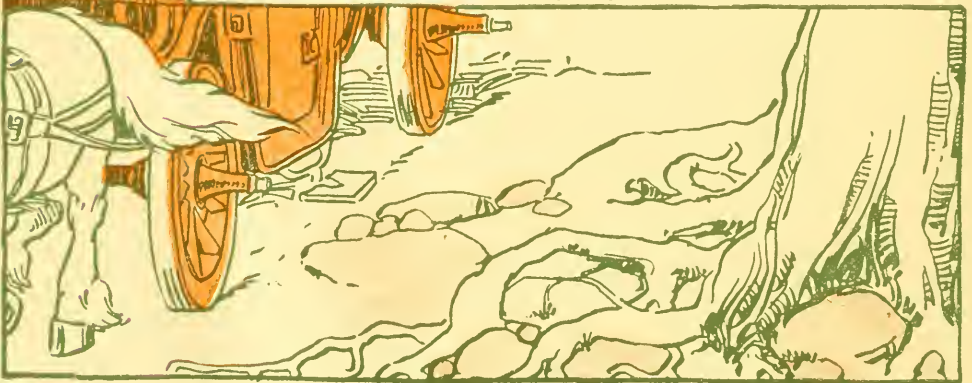
At first the girls didn't see him, he was so small.

He ran right to Jack, and put a tiny bit of paper in his hand.

“For pity's sake, Bet,” Jack exclaimed, “I forgot to send back the magic tree and here's the Queen's messenger with a command from Her Majesty! Oh, oh, oh!”

“Will it be all right if he sends it back immediately?” Bet asked of the tiny dog, whose head she was patting.

[ 262 ]



The dog wagged his tiny tail and stood on his hind legs. Bet bent her ear to his mouth.

"It will be all right," she said aloud, "if you return it this minute."

"Attendants!" shouted Jack. "Attendants!"

Out ran the tiny elves.

"Take back the magic tree!" commanded Jack, "and apologize to Her Majesty for keeping it over time."

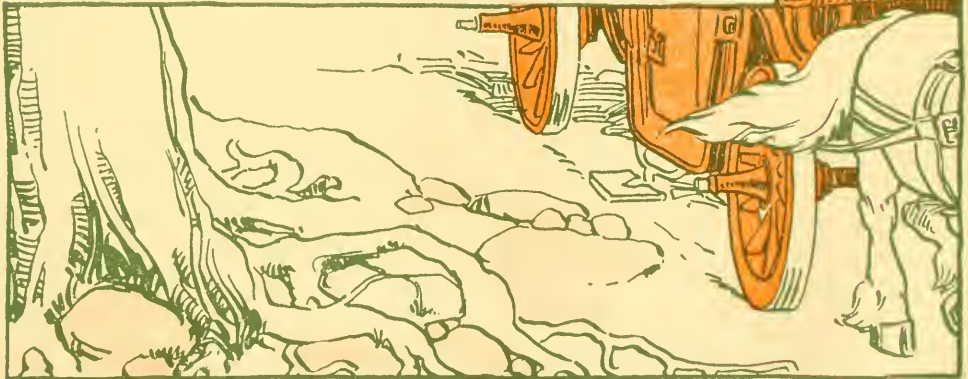
He took a little box out of his pocket. Opening it, he shook out a shining powder, and before the girls could see how it came about, the tiny tree just as they first saw it, growing in the little tub, was before them. The elves sprang to its sides. The little dog ran on before; and elves, dog and tree vanished from sight.

"I wouldn't have had it late for anything!" Jack spoke sadly.

"You were teaching us so kindly," said Mary Frances; "that was the reason you forgot. Oh, I'm so sorry."

"If you appreciate my lesson so much," Jack said, smiling, "the Queen won't mind at all."

"How glad we are!" cried the girls.





“And now,” Jack went on happily, as Bet danced around; “now, I will begin a story about one cousin—

#### A WICKED INNKEEPER

As you know, plants hang out signs to attract Mrs. Bee and Mrs. Butterfly and other insects to the feast they have spread—the pollen and the nectar feast. The signs are the attractive colors of the flowers.

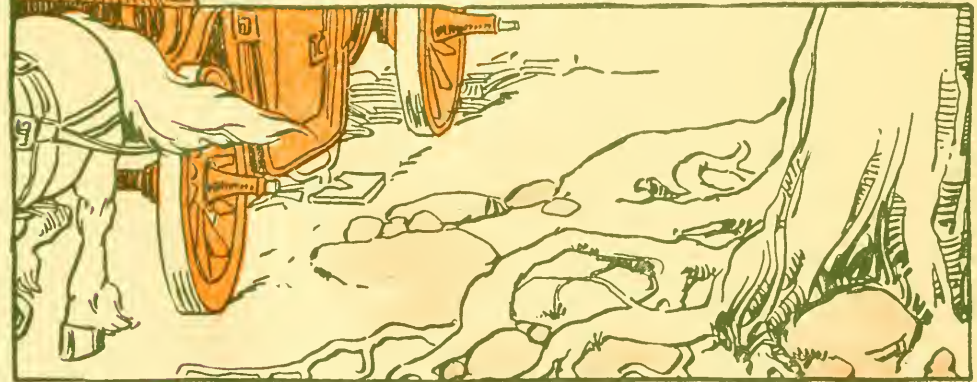
One flower that hangs out a very pretty little white sign is the Sundew. The sign seems to say to the passing fly or gnat, “Come, rest upon one of my pretty, sparkling leaves, and take a meal at my pretty white blossom-table. Stop at Sundew Inn.”

The little fly is charmed with the cordial invitation, and lights down upon one of the leaves which glisten all day with a substance that looks like dew.

In a moment, he knows his mistake, for the sparkling drops are a sticky fluid which holds the little fellow fast, and the tiny hairs on the leaf’s surface bite him like so many mosquitoes!

The leaf rolls up a little, and more of the sticky fluid pours upon him. It is the digestive fluid of the plant. The wicked Sundew Innkeeper is eating up his guest!

“Just like the Spider and Fly in the old story,” said Mary Frances, repeating the lines:



“ ‘Will you walk into my parlor?’  
Said the spider to the fly,  
‘Tis the prettiest little parlor  
That ever you did spy.’ ”

“Exactly!” agreed Jack. “The sundew invites the fly for the same reason that the spider does—because it needs it for food.”

“Oh,” shuddered Eleanor, “do plants eat animals?”

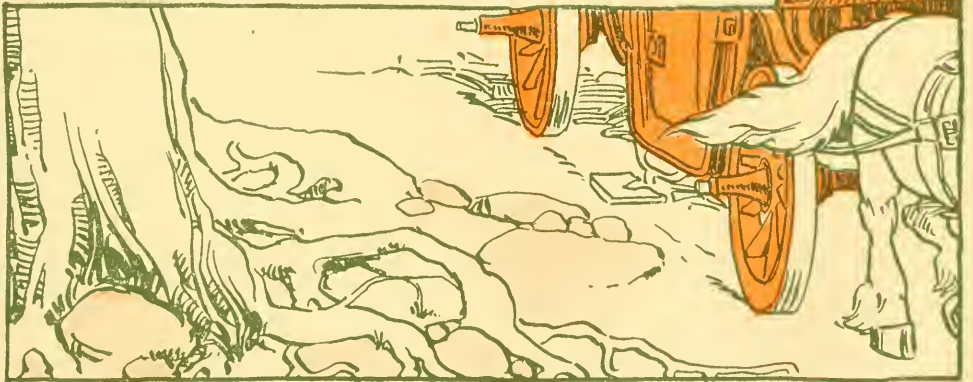
“Not if they can help it,” replied Jack. “Many, many years ago, when the sundew’s great-great-great-great-grandparents were unable to find the kind of food they needed, they developed this method of getting nitrogenous food, to keep from starving.”

“Oh, I see,” said Mary Frances, looking wise.

“Is the sundew the only plant which eats insects?” asked Eleanor; “and does it grow around here?”

“It grows in every section of this country,” replied Jack, “and also in Europe and Asia.”

“The Pitcher Plant, which is found in soggy marshes, eats insects, too,” he went on; “only it manages in a different way. Its leaves are shaped like vases or pitchers, and are usually half filled with



water; its flowers are reddish purple in color, easily deceiving the flies into thinking they are meat. The insects are attracted also by the sweet fluid, which is on the edge of the 'pitcher,' and crawl or slide down the slippery hairs which line the upper part.

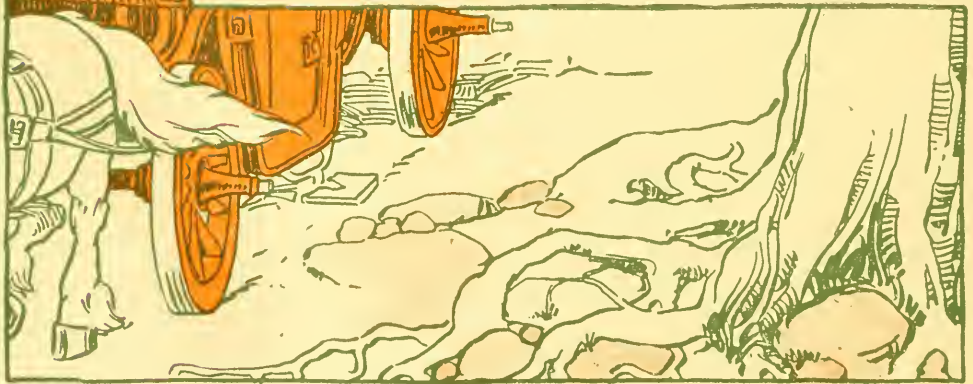
"Once down, the bristly hairs prevent them from climbing back, and they are drowned in the water. The plant eats the soup which their bodies make. The form of Pitcher Plant which grows in the western states has vases large enough to drown small birds and field mice."

"It isn't a pretty story," commented Mary Frances.

"Not a bit," agreed Eleanor.

"It would make us ashamed, wouldn't it, Jack," Bouncing Bet was speaking, "if anybody but Mother Nature had invented that way of keeping things moving?"

"She must have had good reason," replied Jack.



## CHAPTER XLV

### UNINVITED GUESTS

“SO much, then, for the disrespectful murderer branch of the family,” he continued. “Now I will tell you about some of our thieves. We don’t approve of them any more than you would approve of a cousin who turned out to be a thief, but—well, I shall begin by telling you about—

#### DODDER

No plant would invite such a miserable pauper as a visitor. It’s worse than any beggar you have ever known, for a beggar at least digests his own food.

Not so with dodder. It is too lazy to do even that! It has therefore, no leaves. It doesn’t need them. It starts out as an honest plant baby, but soon “goes wrong,” reaching out long tendrils by which it takes hold of any convenient plant neighbor. It sends little leg-like suckers down into the stem of this plant neighbor. It lets go of the earth with its roots, and drinks the life-blood, or sap, of its host, the plant on which it has seized hold.

The disgracefully lazy dodder does no work at all except to make flowers and seeds. The flowers are tiny, star-shaped. of a

[ 267 ]



yellowish, greenish or white color, and each flower makes four seeds to go on to make more thieving plant babies!

"Isn't it disgraceful!" exclaimed Bet. "Jack and I never want to associate with plants that murder and steal——"

"Not if we can help it," said Jack, "we don't."

"You'll be sorry," he went on, "to learn that Indian pipes, too, are uninvited guests, living on food in other plant roots."

"Oh," said Mary Frances regretfully. "I always thought them so pretty!"

"Well, they are pretty, and dodder, even, is pretty in a way, because of its yellow color, but both are——"

#### PARASITE PLANTS

Parasite means "eating at another's table."

Parasite plants are those which fasten upon other plants and steal their food.

Real parasite plants lack all green color, for since they steal food already digested, what need have they for green matter (chlor-o-phyll) by means of which a plant digests its food?

There are also some half parasites, which, while living partially upon stolen food, get some food for themselves.



The pretty waxy Christmas mistletoe is a half parasite. You notice that it has some green coloring or chlor-o-phyll, which it uses to digest the nourishment it gathers from the air.

"My," exclaimed Eleanor, "I'm glad it doesn't steal all its food. That shows it's trying to help itself. It isn't such a 'piggy' as some plants!"

"Oh, not every parasite plant destroys the plant whose food it takes. Not very long ago, human beings found out that the very tiny parasite plants which fasten themselves to peas and beans and other similar plants (called Legumens) are very beneficial to them. They do steal some predigested food, but in return they give to them a much more valuable food, which they have taken from the air. This valuable food is nitrogen.

For this reason, these parasitic plants, or nitrogens, have been gathered and grown, and are now sold under the name of 'Cultures for Legumens.' When applied to peas, beans, clover, etc., they cause them to grow very rapidly, and give very abundant crops."

"How wonderful!" said Mary Frances.

Just then the fairy clock chimed four.





## CHAPTER XLVI

### HOW SEED BABIES TRAVEL

“COME,” cried Bouncing Bet. “Now, I am going to tell you a wonderful, true fairy story. You never realized, did you, that plants travel? I mean that they travel without the help of human beings.”

“No,” the girls shook their heads.

“You can’t deny that they spread from place to place, can you?” asked Bet.

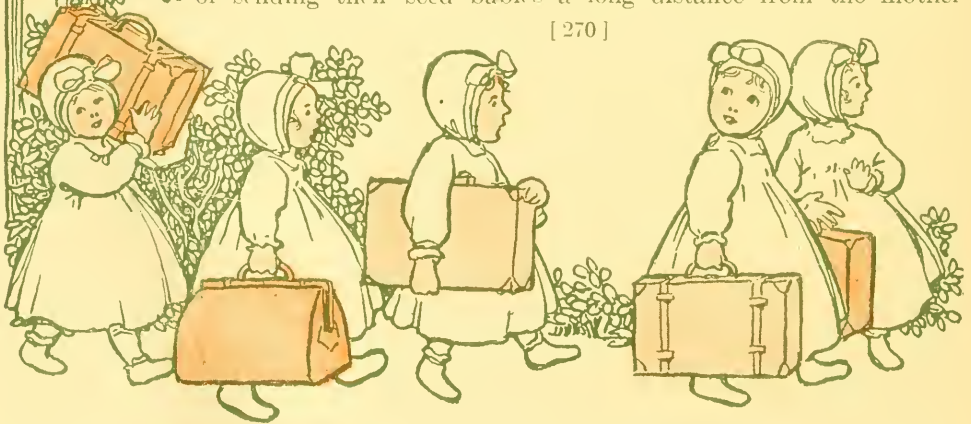
“Indeed, I can’t,” said Mary Frances; “the dandelions have spread all over our land within a short time.”

“And I’ll tell you how they did it,” Bet went on. “But first I’ll tell you—

### WHY PLANTS TRAVEL

If the seeds of a plant always fell on ground nearby, the space would soon become choked up, and the new seed babies would have no chance to live; so, many plants have been provided means of sending their seed babies a long distance from the mother

[ 270 ]



plant, and in this way they have spread or traveled from place to place, until some cover very large areas.

### HOW PLANTS TRAVEL

#### *Seed Pods with Burry Coats*

Did you ever think, when you pick "beggar lice" and "sand ourrs" off your clothing and throw them down on the ground, that you are helping the plant mother do just what she wanted you to do with her seed baby?

She put "stickers" all over the coat of her seed baby so that it might catch hold of your dress, or of the fur of your doggie, or your cow, and be dropped in a new place where the seed baby could grow with better chances than at home near her.

When you make burr baskets out of the sticky burdock seeds, unless you burn them, you are helping the burdocks to travel.

#### *Pods which Shoot Seeds*

The mother plants of the "spider plant," and of the pansy, and of the violet send their seed babies to new homes by using seed pods which burst open and shoot the seeds far and wide in all directions.

#### *Tumble Weeds*

Some mother plants actually carry their seed babies to new places.

The "tumble weeds" of the West dry up in Autumn, and are





broken off near the roots by the wind, which carries them along over field and meadow; and everywhere they go, they are dropping seed babies in new places. If you watch them as they tumble about you will feel like laughing at their comical appearance.

Now we have come to the fairy seed babies, the—

### *Seed Babies with Wings*

You've seen them often—seed babies flying about on the wings which their plant-mother gave them. Sometimes you have helped them start to fly.

Oh, yes, you have.

Don't you remember when you pulled the fluffy head off a dandelion, and blew it to "see what time it was?"

Of course you didn't know it, but you sent scores of dandelion seed babies floating off in the air on their fairy wings. Perhaps the wind took one up where you left off blowing, and landed it such a distance away from its old home that it might have seemed like hundreds of miles to the little thing.

Milk-weed seed babies fastened to their beautiful silky down, which is so light it floats along like a fairy's feather, actually travel on the "wings of the wind."

Some trees, too, give their seed babies wings. Haven't the winged seeds of the maple fooled you into thinking they were birds or insects of some kind? It has amused you, too, to notice how far the wings of these seed babies have carried them on the wind.



“Haven’t the plant mothers provided wonderfully for their seed babies’ welfare!” exclaimed Mary Frances.

“Yes,” replied Bet; “back of the plant mother is another mother—Mother Nature. Oh, but she is wise!”



## CHAPTER XLVII

### HAVE A SEAT ON A TOAD STOOL

“MOTHER NATURE has taught plant mothers many secrets as to how to take care of their babies,” Bet continued, “but perhaps her most amusing trick is the wrapping of certain seed babies in seed cases which look like worms or bugs. Did you ever notice the seeds of the castor oil plant?”

“They look exactly like bugs!” Mary Frances exclaimed.

“Almost,” Bet nodded; “probably to make some bird think it’s going to have a fine meal. When the seed has been carried a little distance, the bird will discover its mistake, and drop the seed baby in a new home.”

“What a cunning trick!” exclaimed Eleanor.

“Isn’t it!” said Mary Frances. “I remember now, that I once saw on a plant what I thought was a worm, and when I tried to brush it off, it burst open, letting the seeds scatter about.”

[ 274 ]



"I wonder if that wasn't this plant?" Bet asked as she held up a dried flower head, out of which a worm seemed to be crawling.

"That's it!" cried Mary Frances. "What is the plant called, please?"

"It has a very long name," Bouncing Bet replied; "too long for you to remember, I fear; but it means a 'coiled worm,' and shows how perfectly one plant mother has performed this comical trick."

"I suspect all plant mothers have some trick," Mary Frances ventured.

"That leads me to tell you about one kind of plants we've not yet mentioned.

They are the—

#### PLANTS WITHOUT FLOWERS

If plants have no flowers, you will ask, how can the new baby plants grow? Can there be seed babies without flowers?

No, flowerless plants do not bear seeds, but they do have plant babies, otherwise we would not have ferns, mushrooms, and many other important plants.

The plant babies of flowerless plants come from spores, not seeds.

Did you ever gather Christmas ferns? They are the ones



which cheer you so with their beautiful green color in the woods when so many other things are asleep in winter.

On the back of the fern leaves, perhaps you have noticed little brown rusty-looking spots.

In these spots or spore-cases are the spores. When the spore cases are ripe, they burst open and throw out the spores which look like a fine dust.

Each grain of this dust must live in a moist, warm place, and pass through several changes before a baby fern can grow. Mosses grow in a similar way. So, also, do—

#### MUSHROOMS OR TOAD STOOLS

Mushrooms are flowerless plants, and they do not grow from seeds, but from spores.

The spores fall from the pretty gills on the under side of the umbrella part of the plant.

Of course, since they have no green color, you know that mushrooms do not make their own food. They, like most other—

#### FUNGI,

live on dead vegetable matter.

Mushrooms grow by means of thread-like feeders which they send down into the dead material which they use.

It is a good thing that fungi use dead trees and leaves and other dead matter for food; otherwise, these things would keep on piling up!



I wish to tell you of one kind of fungus, though, which lives on living material in trees. It is called the—

#### BRACKET FUNGUS

Perhaps you have thought the bracket-like shelves you have seen on some tree, pretty.

You did not know, then, that some spores of the bracket fungi had fastened into a wound in the bark, and had sent long threads down into the living part of the tree.

The poor tree cannot help itself, and after a while it will die of starvation because the bracket fungi have used up all its food material.

So do be careful never to injure the bark of a tree; for wherever it is torn, it leaves an open wound—just as when you scratch your finger or your arm.

There are other fungi which you've seen oftener than toad stools. They are—

#### MOLDS

You've often see the mold which comes on bread which has been left in a rather dark, warm, moist place.

The mold comes from the thousands of germs in the dust in air. These germs settle down and use anything possible for food, and send out spore-dust to make more germs.

While they are growing and making spore cases, they appear as molds and mildews.



The germs in the dust are too tiny to be seen without a microscope, and their near relatives—

#### BACTERIA

are about the tiniest of living things.

They grow everywhere. Some do us harm and some benefit us wonderfully.

Cheese is made out of milk by one of the good kind; another kind makes vinegar; some other kinds fasten themselves to the inside of our mouths and bodies, bringing disease, like typhoid fever and consumption.

When we keep our bodies and mouths and teeth clean, we help our blood to destroy such bad bacteria.

Sunlight destroys bad germs.

Fresh air destroys bad germs. You should have plenty of fresh air both day and night.

“Pshaw,” said Jack, as Bet finished speaking; “toad stools are meant for fairies to sit on, and mushroom rooms for human beings to eat. What kind of nonsense are you trying to teach, anyhow, Bet?”

The girls laughed, for they saw Jack wink as he spoke.

“Come,” said he, “you’ve been standing too long—come, have a seat on a toad stool?”



With that he ran toward a beautiful white mushroom, and Bet followed.

When they were seated, Mary Frances asked:

“What is the difference between a mushroom and a toad stool?”

“Well,” Jack replied, “I guess there isn’t really any difference, although some people think that toad stools, if eaten, poison people and that mushrooms are harmless, but some mushrooms are very poisonous, so do not try to use any you gather, unless some grown people know them to be harmless, for some of the most beautiful would kill you the most quickly.”

“I’ve eaten mushrooms,” said Eleanor, “but they were canned ones.”

“Oh, they are safe enough,” Bet smiled.

Then the fairy clock struck the half-hour.





## CHAPTER XLVIII

### SOME WAYS TO RID OF WEEDS

“FOUR-THIRTY!” exclaimed Jack, “and we have only until five o’clock.”

“My, you’ll have to talk fast,” said Bouncing Bet, “in order to tell all you want to.”

“One quarter of all I want to, you mean, Bet,” Jack replied.

“I’m afraid my brother and father and mother will come look for us,” said Mary Frances.

“No,” Bet shook her head, “not until five o’clock.”

“I suppose fairies know,” Eleanor whispered.

Jack began to talk rapidly:

#### WEEDS

To the little plant baby which you love and wish to grow, weeds are like terribly hungry beasts who steal their food, and choke them to death, and say:

“Get out of here! I’m a piggy-wig, and I want everything myself!”

So unless you want your favorite plants to die, you will kill the weeds in your garden.

[ 280 ]



Even if some of your plants do live through the fight, they are weak and poor from the lack of food, and the hard work they have been through.

Someone has said that weeds are plants that are not wanted, and people often find that the less they are wanted, the harder it is to get rid of them.

You see, most weeds have grown in spite of everything, and have accommodated themselves to such unpleasant surroundings that when they find themselves in splendid surroundings, as in your garden soil, they begin to grow 'with a vengeance.'

"I know!" Mary Frances laughed.

"Well, we fairy folk want to help you as much as possible with your garden. I am going to tell you about—

#### SOME WAYS TO RID OF WEEDS

Of course, one of the best ways is to pull the weeds, never allowing them to go to seed. That's best for annual kinds.

But the perennial kind must have the roots destroyed, so deep digging or ploughing in the Fall is a great help.

Cleaning off the growth and burning it in the Fall kills many seeds which might "winter over," and come up in the Spring.

Salt is often used to kill grass in paths and garden walks.

Some of the commonest weeds found in the garden are—

*Lamb's-quarters*, or *Pigweed*, which is usually very unwelcome in the garden, but which some people use for "greens."





ROMAN  
WORMWOOD

*Roman Wormwood, or Hogweed, which, from its name, you can see is troublesome everywhere.*

*Beggar-ticks, or Stick tights.*

I guess you know them—

Their seed babies, I mean.

Didn't you get them all over your dresses and stockings one day in the woods?

*Smartweed and Knotweed and Lady's Thumb all resemble each other in appearance.*

*Plantain and Rat Tails*

(Rib Grass, English Plantain) are cousins in the same family.

*Pepper Grass and Shepherd's Purse* are cousins, too, and both belong to the Mustard family. You've often eaten pepper grass seeds, haven't you?

*Field Laurel, or Sour Grass,* has leaves with a pleasantly sour flavor.



BEGGAR-TICKS

"Excuse me," said Mary Frances, as Jack paused, "but you didn't mention that if you 'cultivate' your garden, it will kill weeds."

"I'm so glad you said that!" Jack replied. "It is



the best way to keep weeds out of your garden; but I was speaking of where they had 'gotten a start.' ”

“They're hard to pull sometimes,” remarked Eleanor. “I'll tell you how I know. We have just the tiniest lawn, and father gives me an ice-cream cone for pulling five cents' worth of weeds.”

“Isn't that lovely of him!” Jack exclaimed.

“Sometimes,” he went on, “it is not only for the sake of the plants you want to have grow that you destroy the weeds, but to protect yourself. For instance, you wish to kill out all poisonous plants; such as—

#### POISON IVY

The leaves of poison ivy, if touched, will provoke a painful, poisonous rash on the skin of most people. This is caused by the irritating, acrid juice in the leaves. This juice probably protects the plant—for instance, no cattle will enjoy eating it.

Thousands of cases of ivy poison could be avoided if everyone knew the plant.

Remember, the poison ivy vine



POISON IVY



has three leaves on a stem, while its harmless and beautiful cousin, Virginia Creeper, which resembles it so much, has five leaves on a stem.

Jack stepped forward and showed the girls the difference in the leaves, just as they are pictured here. They examined them carefully.

"I think I'll never mistake poison ivy for that other plant," said Eleanor.

"I hope not," Bet chimed in, "for I am so fond of—"

#### VIRGINIA CREEPER

This plant is a native of America, growing everywhere from Canada southward even to Cuba. It makes a charming decorative vine on wall and fence.

It will soon repay one for the trouble of carrying a root home from the woods, for it easily takes root in a new place, and everyone is delighted with its magnificent brilliant red foliage in the Autumn.

"That sounds like a book, Bet," exclaimed Jack. "I think the most interesting thing about Virginia Creeper is the tiny hand-like 'clingers' with which it holds on to the wall or fence."



"I was going to tell that, Mr. Jack," Bet replied; "but, never mind, I want to tell about—"

#### SOME WAYS IN WHICH PLANTS PROTECT THEMSELVES

You remember that I told you that the "velvet" fur of the great mullein keeps animals from eating the leaves?

Well, perhaps you've never thought of it, but the prickles of the rose and blackberry and the thorns of some trees prevent their being destroyed many and many a time.

"Indeed, I know," laughed Mary Frances. "No one will ever see me try to pick a wild cactus!"

"Or nettles?" asked Jack, pretending to pick splinters from his hand.

"I hope your garden never has more weeds than we saw when we were over there in the moonlight last evening," he went on.

"Why, were you in my garden?" Mary Frances was amazed.

"It looked splendid," beamed Bet.

"We will come often," Jack added, "and if we never see more weeds than last evening, you'll be growing wonderful vegetables and flowers."

"Feather Flop—" Mary Frances began, then



she thought perhaps she'd better not mention the rooster.

"It's about time to say good-bye," Bet said, "but you need not feel sorry because we will—

Come in the moonlight  
To see how your garden grows."



## CHAPTER XLIX

### QUEEN'S LACE TRIMS WELL

“**H**OW lovely that will be, Mary Frances!” exclaimed Eleanor.

“I shall come out some evening to see you, dear fairy folks,” said Mary Frances, “even if you cannot talk with me. Maybe Eleanor will come, too.”

“I don’t believe you’ll know us when you see us. I might come as Jack Frost,” Jack answered.

“And I might seem a Luna moth,” said Bouncing Bet. “But you’ll know we are interested and are trying to help you.”

“Come,” said Jack, “we have a gift for you. Here is a package of wild flower seeds which we hope you will plant.”

“Thank you, oh, thank you!” Both the girls were delighted.

“There’s only one condition with our gift; you must never tell anyone about us! If you do, not a seed will grow.”

[ 287 ]





"Oh!" The tears came into Mary Frances' eyes. "Not Mother?" she asked.

"Would the Queen let them tell her mother?" Jack turned to Bet.

"Yes," said Bet, "because her mother believes in fairies."

"Indeed she does!" Mary Frances was enthusiastic. "She knows all about the Cooking People."

"Yes," both Bet and Jack nodded.

"The Thimble People."

They nodded again.

"And the Doll People."

The Queen of All Fairies sent them, you know," said Jack to Bet.

"Of course," Bet replied.

"Now for my party dress," she suddenly sang out, and with "Excuse me!" ran away.

When she came back she was dressed in the queen's lace gown, only it was more gorgeous than before, for it sparkled with a thousand jewels.

She picked up her dainty pink skirt and began to dance.

"Isn't my dress pretty?" she asked.



"Queen's lace trims well," she laughed. "Come, Jack!" And together they danced in mid-air, treading on nothing.

"Good-bye, dear girls," they sang. "Good-bye, little gardeners! Good luck! Remember the fairies will be watching your gardens!"

Just then Mary Frances noticed a big soap bubble floating toward the little dancers. Nearer and nearer it came, and stopped in front of them.

Jack opened a door in the soap bubble, and in they stepped.

"Good-bye," cried Bouncing Bet, as Jack closed the door.

"Good-bye!" cried the girls. "Good-bye, kind, lovely fairy folks!"

Jack and Bet threw kisses to them until the bubble floated out of sight over the tops of the trees.

\* \* \* \* \*

"Oh, Mary Frances," cried Eleanor after a short silence. "Oh, it was the most wonderful thing that ever happened to me!"

"Well, so this is where you girls were hiding!" Billy's voice made both the girls jump. "My, you



gave me a scare! Not a bit of lunch tasted, and not a sign of you!”

“Oh, Billy,” exclaimed Mary Frances, “how you startled me! How’s Mother? Could she—could she come?”

“Mother’s all right,” said Billy, “only Father thought best for her not to try to come, and sent me for you girls—Hello! I see you’ve been gathering wild flowers.”

He had spied the flowers that Jack and Bet had let them gather.

“Gee! aren’t they beauties! Did you find them near here? I don’t wonder you forgot your lunch!”

“Oh, Billy—that reminds me—I’m awfully hungry!” Mary Frances said, “and I imagine Eleanor is, too.”

“I’m—I am hungry,” Eleanor spoke as in a dream.

“Well, then, since there are no fairies to bring the lunch baskets to us, let’s go to the lunch baskets,” said Billy, picking up the bunches of flowers and leading the way.

“You’ll need a pail to put these flowers in water,” he said.



When he spoke of fairies, Mary Frances put her fingers to her lips. Eleanor smiled and nodded.

"Let's spread supper!" said Billy.

"That will make us late getting home, I fear," Mary Frances parleyed.

"No, sir-ee!" Billy smiled, "Father's going to drive over for us!"

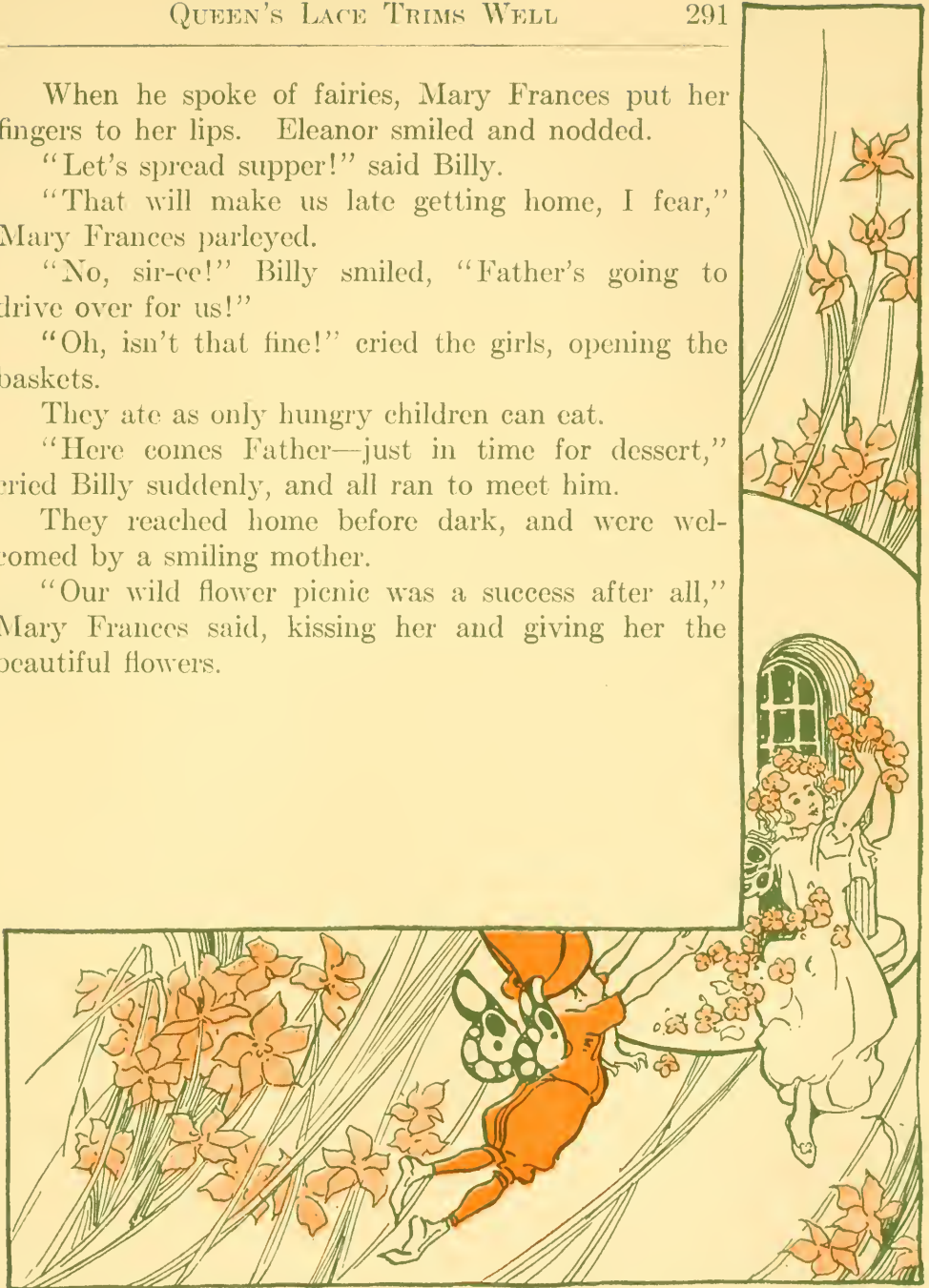
"Oh, isn't that fine!" cried the girls, opening the baskets.

They ate as only hungry children can eat.

"Here comes Father—just in time for dessert," cried Billy suddenly, and all ran to meet him.

They reached home before dark, and were welcomed by a smiling mother.

"Our wild flower picnic was a success after all," Mary Frances said, kissing her and giving her the beautiful flowers.



## CHAPTER L

### THE WILD FLOWER GARDEN

**T**HE girls were in Mary Frances' mother's room whispering to her the story of their experience with Jack-in-the-Pulpit and Bouncing Bet.

"Wasn't it wonderful?" Eleanor clapped her hands softly. "Oh, I am so glad I could share Mary Frances' pleasure!"

"I am as glad as Eleanor," Mary Frances said. "I wish every girl and boy, too, could have seen and heard what we did!"

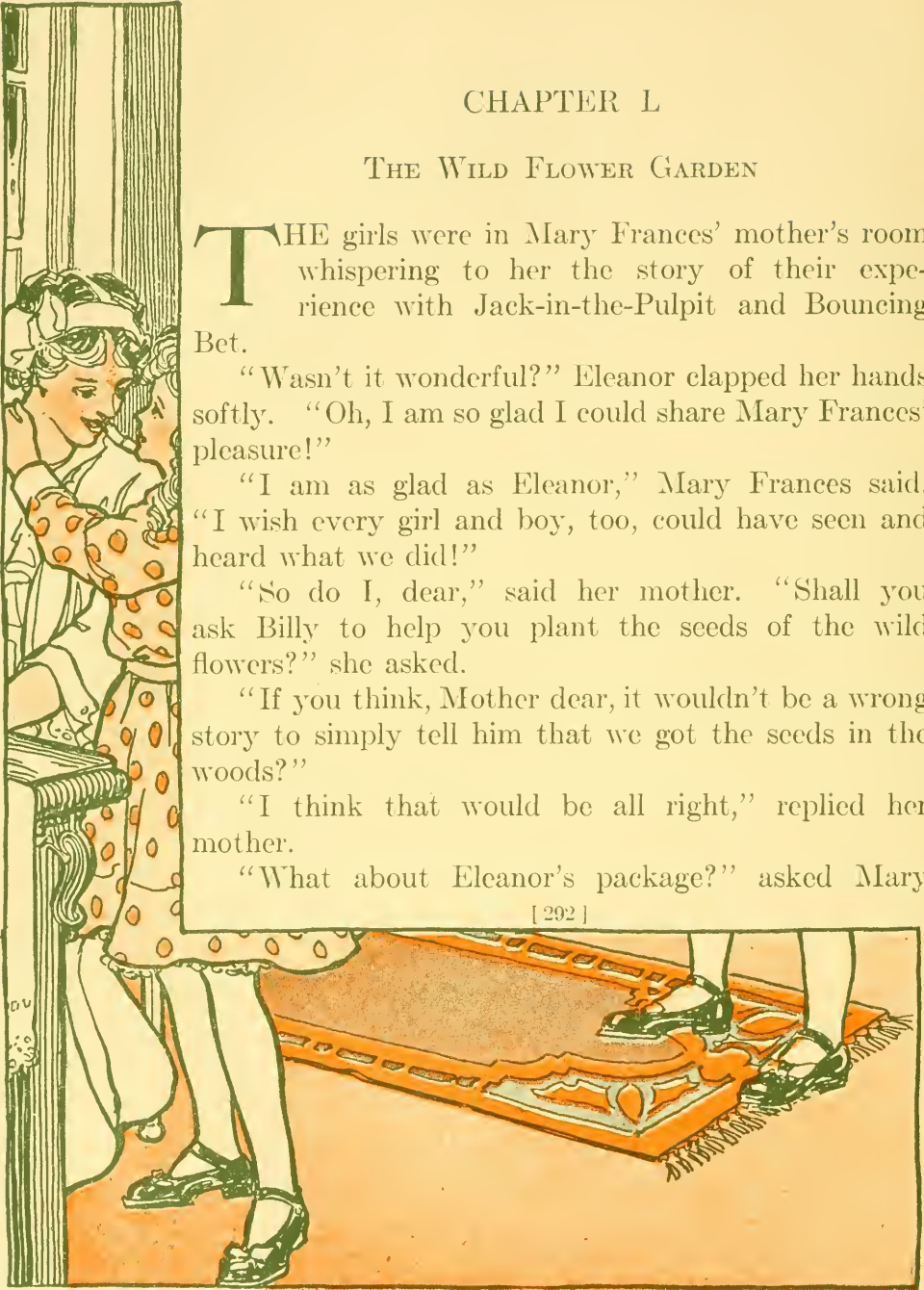
"So do I, dear," said her mother. "Shall you ask Billy to help you plant the seeds of the wild flowers?" she asked.

"If you think, Mother dear, it wouldn't be a wrong story to simply tell him that we got the seeds in the woods?"

"I think that would be all right," replied her mother.

"What about Eleanor's package?" asked Mary

[ 292 ]



Frances. "Shall she keep it until she goes home to plant in her own garden?"

Her mother hesitated. "I may as well tell you, girls. I have a wonderful surprise for you, myself."

"Oh, do tell us!" they cried.

"Sit down, then," she said, and they took their low chairs to her knee.

"This is my secret. Our dear old friend, Eleanor's father, has to go away on business—maybe he will be gone a year—and Eleanor is to come live with us."

"Oh, how lovely!" cried Mary Frances, throwing her arms about her friend's neck and kissing her.

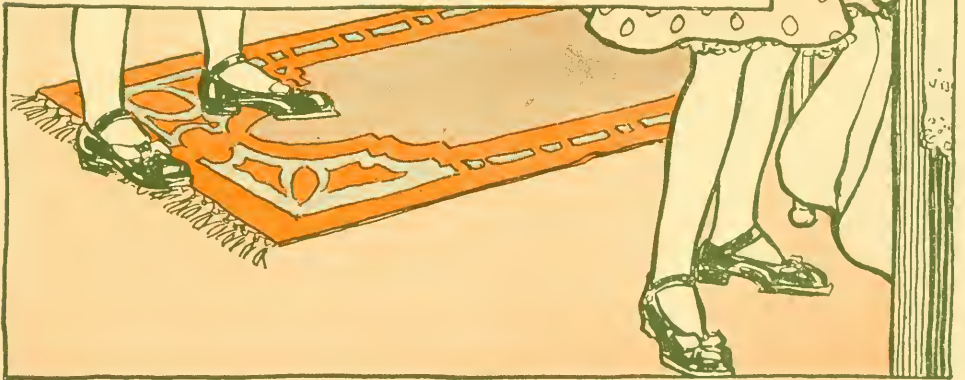
Tears came into Eleanor's eyes.

"I'm so glad," she said. "I shall miss Father terribly, but if you and Mary Frances' father just adopt me for a while, it will be something like having my own dear father and mother. What about Bob? Do you know where he is to be?"

"Yes, dear child," smiled Mary Frances' mother; "that is another pleasant surprise. Bob is to go away to school with Billy."

"Oh, will he study gardening?" cried Eleanor.

"He will, if he wishes, your father said."



"Isn't that grand!" Eleanor was enthusiastic—then her face suddenly clouded.

"When will Father go?" she asked.

"Not until the middle of September, Eleanor. He and Bob are to come visit us the first of the month, and you are to be with us from now on."

"You're to be my sister!" Mary Frances laughed.

"And you may call me Mother, if you wish, dear," added Mary Frances' mother.

"Oh, it seems so cozy and lovely!" sighed the little girl.

"Well, now, my girlics, since the secrets are told, why not get Billy to help you plant the wild flower seeds?"

"All right!" they cried, jumping up and kissing her before they ran away.

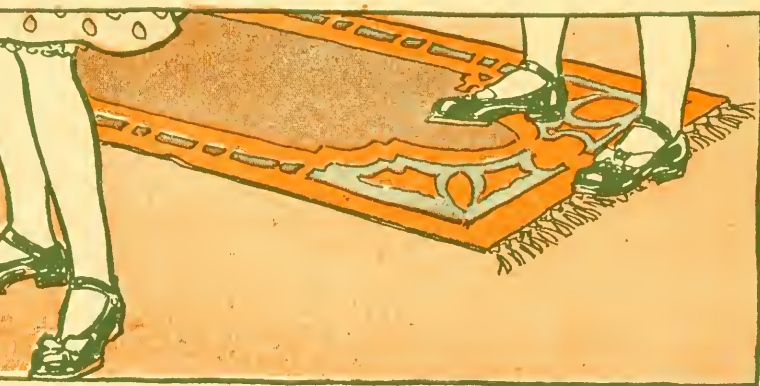
"Oh, Billy! Billy!" they shouted as they saw him in the garden.

"Here come 'our twins'," laughed Billy, turning toward his father. "I wonder what's up."

"Hello, girls," he answered as they came near.

"What can we do for you?"

"Oh, Billy, and Father, have you heard the news?"



Of course you have! Eleanor is to be my sister, and yours, Billy, and she's to call Father, Father; and Mother, Mother; aren't you, dear?" said Mary Frances, kissing Eleanor, who smiled shyly.

"Whew!" exclaimed Billy. "Stop for breath, Mary Frances, can't you? If Nell were as bad as you——"

"Oh, Billy!" chided Eleanor.

"I guess all that Billy means to say," interposed his father, "is that we're all glad that such a good little girl is to come live with us."

"You'll have to live up to that reputation, young lady," laughed Billy.

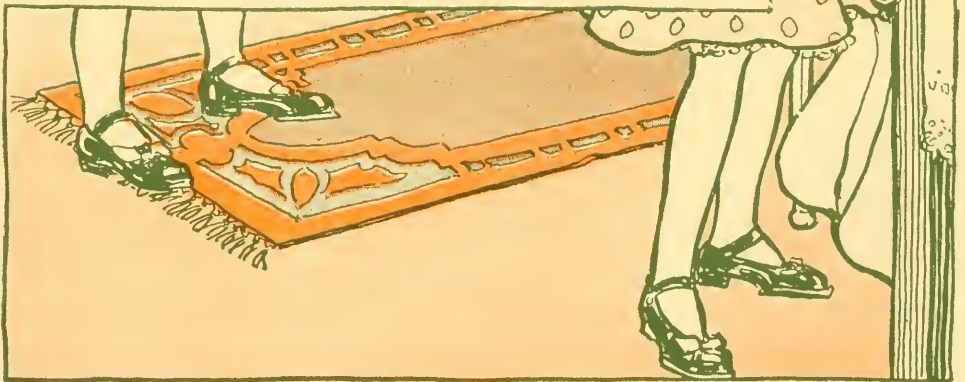
"And now," Mary Frances produced the packages of wild flower seeds, "we want our brother to help us plant seeds."

"What kind of seeds are they?" questioned her father.

"Where did you get them?" asked Billy.

"We got them in the woods where we gathered the wild flowers," answered Mary Frances.

"No wonder I couldn't find you," Billy commented. "Where do you think they'd better be planted, Father?"





"Not near a garden of cultivated flowers," said his father.

"No," Billy remarked, "for we learned that the cross-fertilization or a mixture of pollen might bring very poor flowers in the garden if wild ones were planted too near, and might also fill it up with weeds."

"Down in this corner would be a good place, it seems to me," said their father, leading the way.

"I'll be with you as soon as I get my spade and fork," called Billy.

Everybody helped, and the bed was soon planted.

"I know they'll all grow for Jack——" Eleanor began.

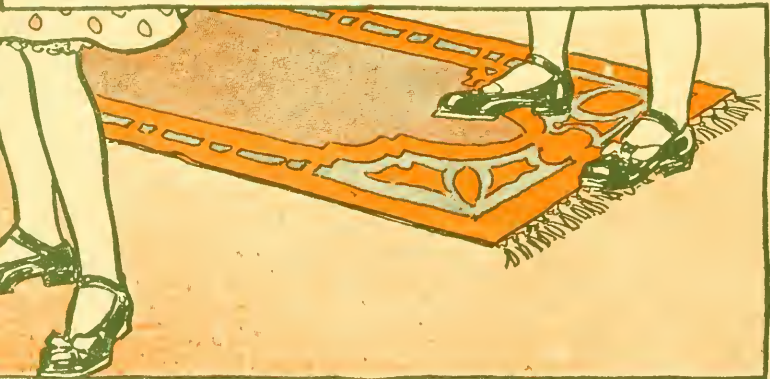
Mary Frances pinched her arm, and Eleanor just caught herself in time.

"For Jack Frost will not get here soon enough to harm them," finished Eleanor.

"He'll not be here in time to harm the perennial kind," Billy said.

"No," his father took up the thought, "August is an ideal time to plant the seeds of perennials."

"We have a number of seeds ready for planting."



Billy turned to Mary Frances. "Where are they, sister?"

"In the play house," replied Mary Frances. "Shall we get them?"

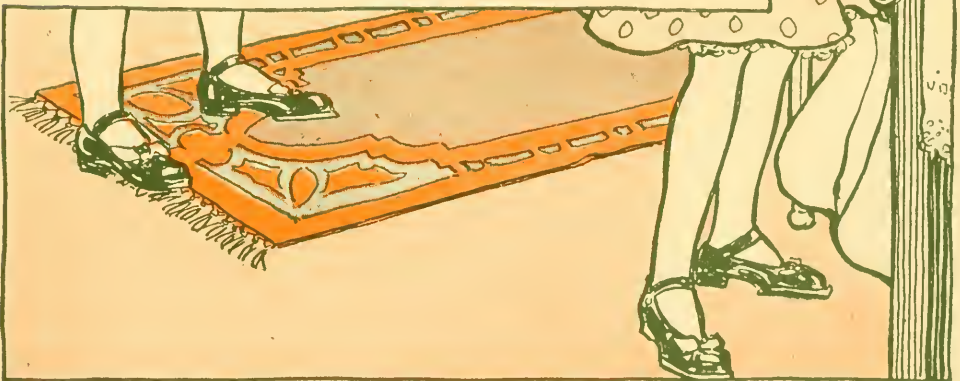
"Yes," said her father, "I have plenty of time now, and I will help Billy, if he will act as 'master of ceremonies.'"

"Father, I don't know such a heap." Billy's face colored.

"Well, son," said his father, "we'll all appreciate your telling us all you can of what you learned. I know a little theory on the subject myself. I only wish I could have had training and experience in gardening when I was a boy."

"It's the most interesting subject in the world, I believe," Billy said earnestly.

"Here are the seeds," cried Mary Frances, as she and Eleanor came with a number of packages.



## CHAPTER LI

### GROWING PERENNIALS FROM SEED

“WE bought,” said Billy, taking the packages in his hand, “only the seeds of the perennials which are easily grown. It’s far better to buy the young plants of the more delicate kinds.”

“I should think so. May we see what you have here?” asked his father, reading aloud the names on the envelopes which Billy gave him. They were—

Gaillardia	Oriental Poppies
Coreopsis	Baby’s Breath
Iceland Poppies	Hollyhocks
Larkspur	Foxgloves
Bell Flowers	Columbines

“Of course,” Billy explained, “all of these seeds could be started in the early Spring in a sunny window in the house, or in a hotbed, and transplanted to the open ground in June; but the advantage in planting them in July or August is that they will get a good

[ 298 ]



start before cold weather, and will bloom the next Summer."

"Oh, wouldn't they bloom in the coming Summer if planted in the house very, very early in the Spring?" asked Eleanor.

"A few, such as sweet williams and gaillardia, might," Billy answered, "but it would be quite uncertain."

"Do you make the seed bed in just the same way as for any other seeds?" asked Mary Frances.

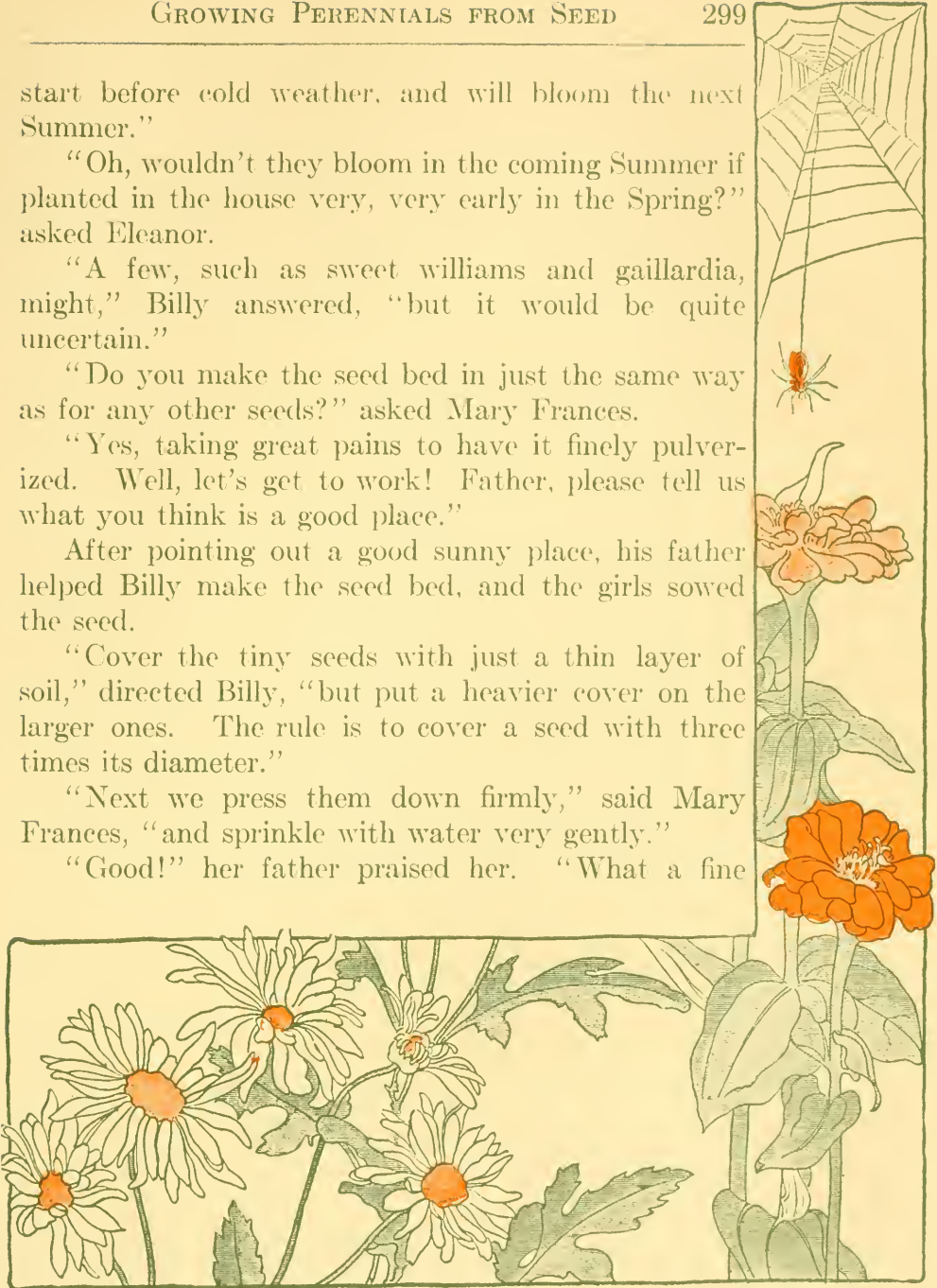
"Yes, taking great pains to have it finely pulverized. Well, let's get to work! Father, please tell us what you think is a good place."

After pointing out a good sunny place, his father helped Billy make the seed bed, and the girls sowed the seed.

"Cover the tiny seeds with just a thin layer of soil," directed Billy, "but put a heavier cover on the larger ones. The rule is to cover a seed with three times its diameter."

"Next we press them down firmly," said Mary Frances, "and sprinkle with water very gently."

"Good!" her father praised her. "What a fine



little gardener you are! By the way, when do we see that play house garden of yours, dear?"

"Oh, Father, that's to be another surprise!" Mary Frances answered. "You're to be invited to a Garden Party—you and Mother, and other people, too."

"Won't that be fine! I hope you will not forget Aunt Maria," her father smiled.

"That's a part of the secret, Father; please, please don't guess any more! And please don't tell Mother, will you?" Mary Frances begged anxiously.

"Indeed, I shall not, little girl," he answered. "I think it is a delightful idea."

"The bed should be shaded from the hot sunlight," Billy went on irrelevantly, "until the plants are quite large."

They turned toward him.

"How's that best managed, son?"

"It can be managed in several different ways," said Billy. "For instance, brush may be laid over the bed, but that is not a very good method. A better one is to make a—



## CHEESE-CLOTH SHADE FRAME

Drive down several stakes on the border and in the center of the bed.

Make a cover of cheese-cloth to fit over the bed, and fasten it to the stakes.

You see, the cheese-cloth lets in light and air and rain, yet protects the little seedlings from the direct hot rays of the sun.

"We boys will drive down the stakes if you girls will make the cheese-cloth cover," volunteered their father.

"Sew we will, won't we, Eleanor?" laughed Mary Frances.

"Was that a pun?" asked Billy. "Why, Mary Frances!"

"She meant we will so," Eleanor tried to explain, but everybody smiled.

"You do not need to sew if the beds are narrow, for the cheese-cloth will be wide enough," Billy said, "nor if you use another method of shading the seed beds. I mean if you use—"

## LATTICE SHADE FRAME

Instead of using cheese-cloth, laths are fastened to the upright stakes to form a "lattice."

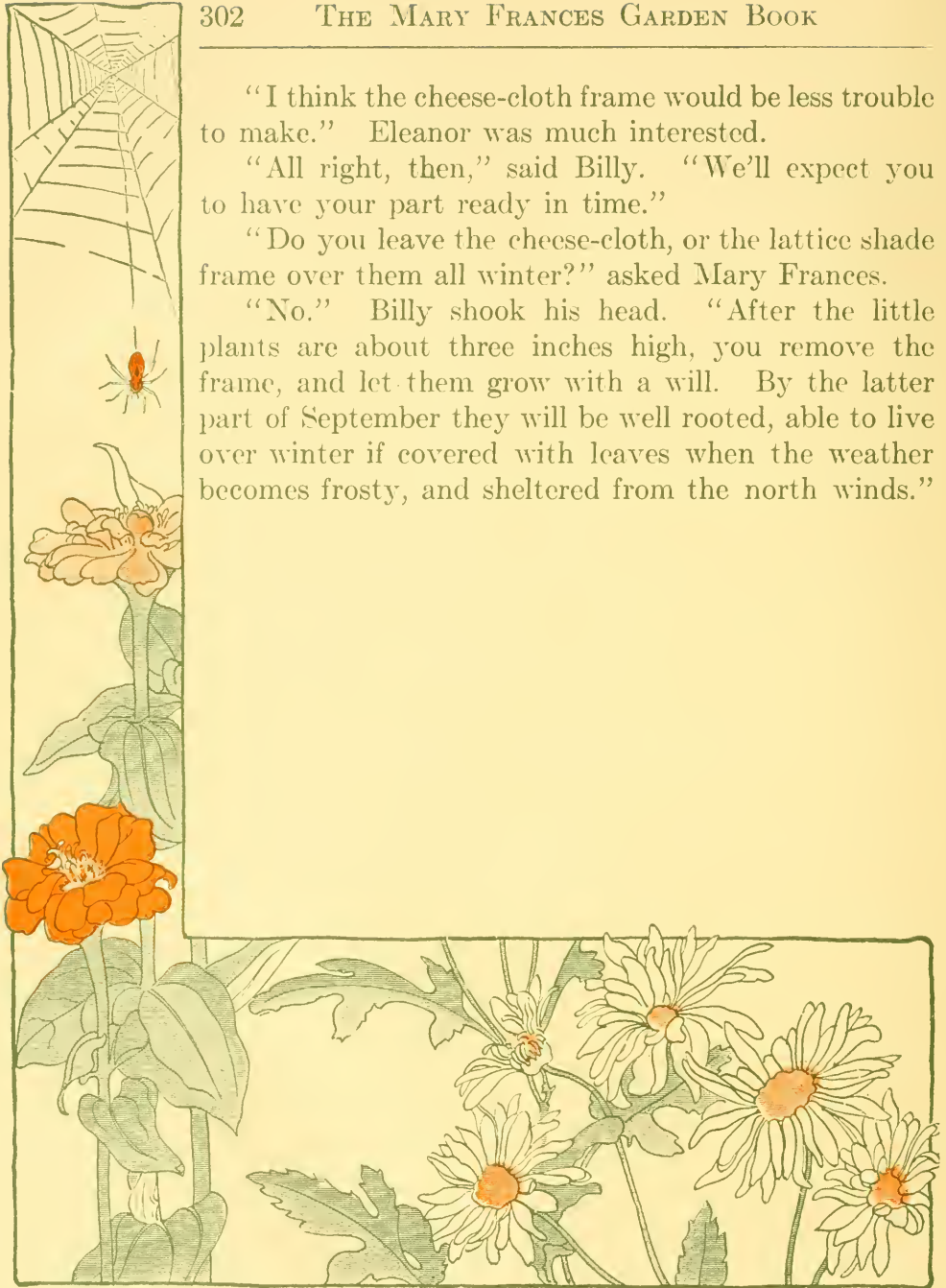


"I think the cheese-cloth frame would be less trouble to make." Eleanor was much interested.

"All right, then," said Billy. "We'll expect you to have your part ready in time."

"Do you leave the cheese-cloth, or the lattice shade frame over them all winter?" asked Mary Frances.

"No." Billy shook his head. "After the little plants are about three inches high, you remove the frame, and let them grow with a will. By the latter part of September they will be well rooted, able to live over winter if covered with leaves when the weather becomes frosty, and sheltered from the north winds."



## CHAPTER LII

### THE MONEY THE CHILDREN MADE

“**E**LEANOR, if you’re going to ‘market garden’ with Billy and me, you’ll have to get up right away.”

Mary Frances shook her little friend into wakefulness.

“Mar-ket—gar-den-ing?” yawned Eleanor, stretching. Then sitting up, “Oh, yes, I remember now, Mary Frances! How stupid of me! It’s Saturday! My, I’m sorry I overslept!”

“Never mind, girlic, but hurry up and dress. Billy’s already out in the garden putting things in the wheelbarrow.”

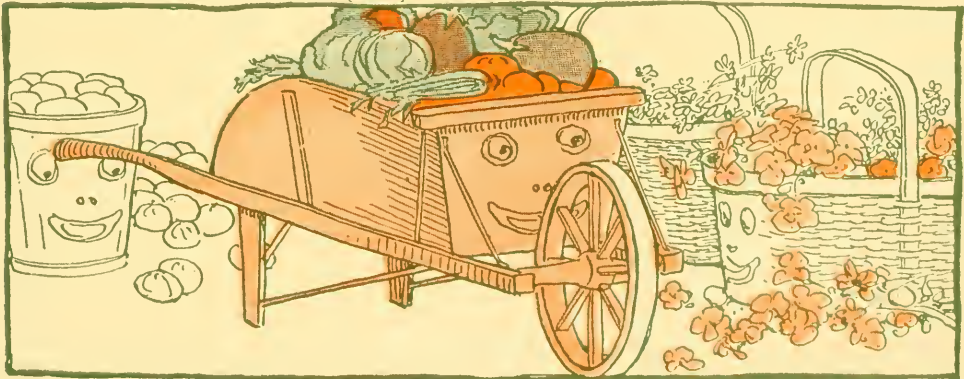
They didn’t take much time for making a fancy toilet, and were soon out in the play house garden with Billy.

“Hello, girls,” he called. “Aren’t these green peppers beauties?” holding some up.

“Green peppers!” said Eleanor. “Why, lots of those green peppers are red!”



[ 303 ]







“Oh, you’re no Italian,” laughed Billy, “or you would know that most green peppers turn red when ripe enough.”

“What else have we to-day?” asked Mary Frances. “Of course we have our parsley, and lettuce, and tomatoes, and ‘pot herbs.’”

“And cabbage, and carrots, and beans, and cucumbers,” added Billy.

“And egg-plants!” Eleanor was proud to be able to add a name to the list.

“All the articles mentioned, Ma’am,” said Billy, pretending to offer them for sale.

“I’ll buy everything you have,” answered Eleanor, “if you’ll sell for a penny.”

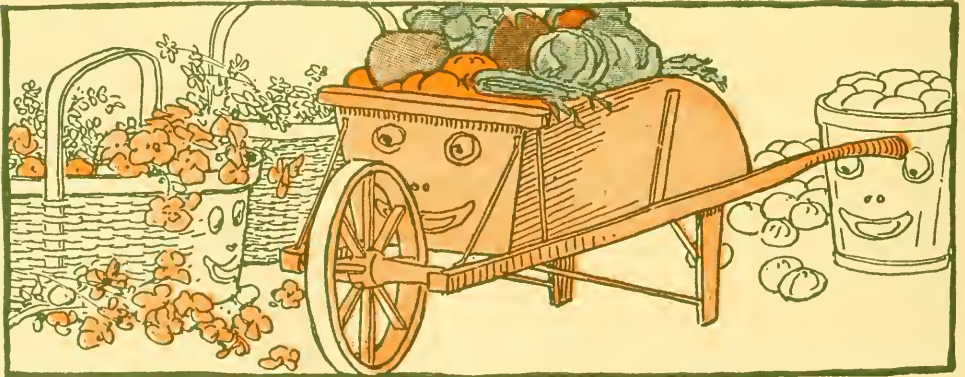
“‘Said the piggy, ‘I won’t!’” Mary Frances misquoted, “and I don’t blame Billy, for we’ve made lots of money this Summer.”

“Yes, I know,” said Eleanor; “from the times I’ve been out with you selling garden truck, you must have quite a fortune by now.”

“Oh, say——” began Billy.

“What?” asked Mary Frances.

“Why, I was just thinking that since Eleanor



was always helping us so much, she ought to share in the profits."

"Wouldn't that be fine!" Mary Frances hugged her friend in delight.

"No." Eleanor shook her head. "If you divide among three, you won't make money nearly as fast."

"We've done so well that we won't mind going a little more slowly," said Billy. "Shall we tell what a pile we have in the bank, Mary Frances?"

"Oh, Billy, you know I'm crazy to tell her!"

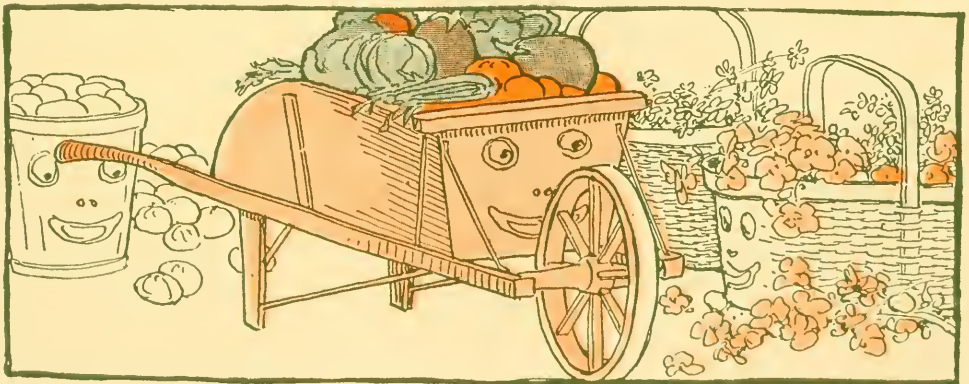
"Well," Billy took a book from his pocket, "last Saturday night we had forty-four dollars and fifty-seven cents, and Mrs. Dailey owes us two dollars and nineteen cents."

"Oh, Billy, did you two make that much in this short time?" Eleanor could scarcely believe her ears.

"More than that!" Mary Frances exulted. "And we've paid Billy back the money we borrowed from his 'prize money' for seeds."

"Let me see. Forty-four and two are forty-six," said Eleanor. "You may have sixty dollars by cold weather!"

"More likely seventy, Billy?" asked Mary Frances.



"I've heard of counting dollars before they were hatched," Billy laughed.

"Is Nell a partner from now on?" asked Mary Frances.

"Yes," Billy said, "if she helps, she shares in the profits—but, gee, I wish Bob was here!"

"Well, you know he's coming soon!" said Mary Frances, "and, besides, you'll be together the whole school year!"

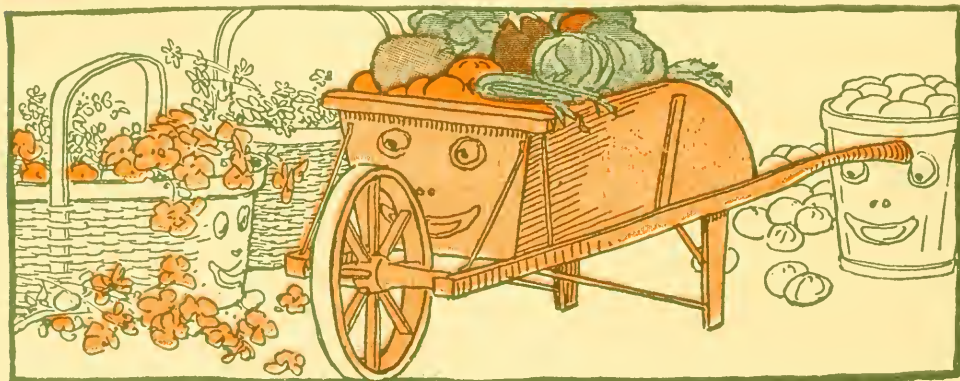
"Say, you girls get to work!" exclaimed Billy, and they flew to gather parsley, and tiny little red peppers, and thyme, and leeks, out of which Mary Frances made penny bunches of pot herbs, while Eleanor tied some three-cent and five-cent bunches of the parsley.

"Are we ready now?" asked Eleanor as Billy piled the wheelbarrow high with vegetables.

"No, indeedy!" Mary Frances exclaimed. "Now, it's my turn. Come on out into the front garden and help me gather my bouquets."

"Let me see the order book, Billy, please?" she asked.

"Oh, yes, Doctor Hopewell wants roses, larkspurs, and baby's breath; Mr. Courtley asked for sweet



peas. As we have only the perennial kind which have no odor, I shall put a sprig of lemon verbena with them. Aren't they beautiful?" as she began to gather them. "I just believe Mr. Courtley is going to give them to Miss Constance. Last Sunday she wore to church the bunch of tufted pansies he bought of me on Saturday."

"Nell, you gather yellow flowers to-day. Isn't that right, Mary Frances?"

He handed her a basket.

"In that," Mary Frances nodded. "You'll find scissors inside the play house door."

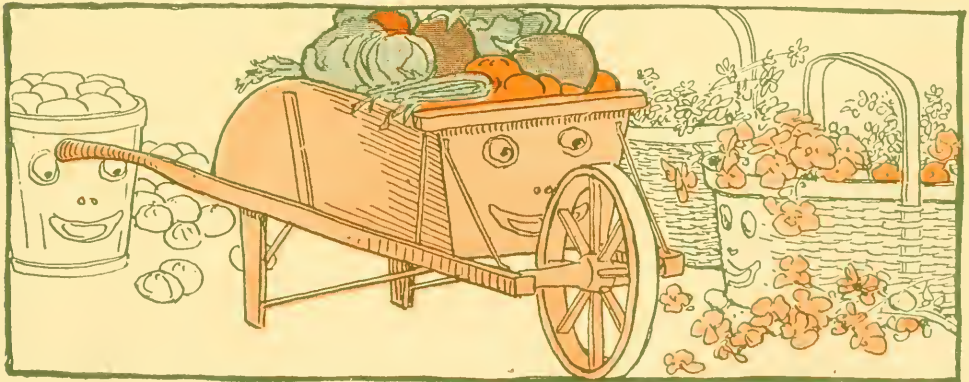
Eleanor was soon cutting perennial sunflowers and coreopsis.

"Billy, get some blue flowers to put with the coreopsis?" Mary Frances called after a minute, and Billy began to cut some eupatorium.

"Isn't this a charming bouquet!" exclaimed Eleanor as she arranged the blue and yellow flowers.

They all admired it, but they voted the pink roses, and larkspur, and baby's breath the most beautiful of all.

"Now, we're ready to start!" Billy led off with





the wheelbarrow, the girls following with baskets of the herbs and flowers.

"Have you planned to do anything special with the money, Mary Frances?" asked Eleanor.

"Well, for one thing, I shall save a good deal for seeds and plants in the Spring, and Billy says we'll plant bulbs in the Fall. That will cost quite a little."

"And we're planning to make a hotbed and a cold frame," broke in Billy, who overheard.

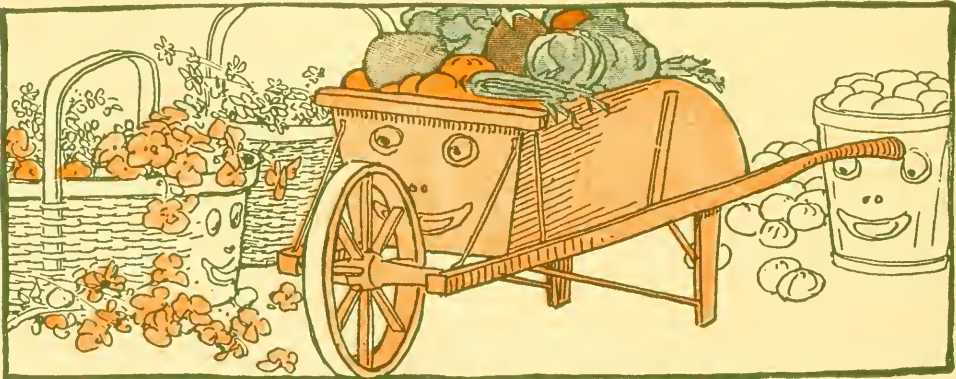
"And when we started gardening I borrowed quite a little sum for seeds from my savings account—with Mother's permission. I have to put that back," Mary Frances added.

"Money, like all good things," Billy looked wise, "should be taken care of!"

"Oh, you miser, Billy!" Mary Frances playfully shook her finger.

"Isn't it strange what funny ideas some people have of how things grow?" remarked Billy. "A city chap at school told me he had always thought that cabbages grew on vines and potatoes were picked off bushes!"

"Well, if he never saw them growing, how could he



know?" Mary Frances reasoned after they stopped laughing.

"That's right!" teased Billy. "Stand up for him."

By that time they were in the heart of the village, and had very soon sold everything, for the village people had become accustomed to look for the children.

"Every vegetable you bring is so fresh that we wait to buy of you," several said.

"Splendid luck to-day," commented Billy, on the way home.

"Have you saved the things your mother ordered?" asked Eleanor.

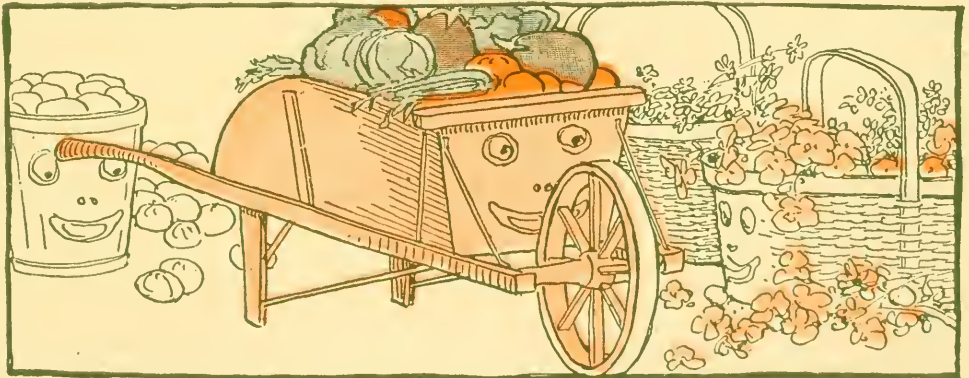
"Of course," answered Billy. "You don't suppose we'd neglect one of our first and best paying customers."

"Mother is a dear!" said Mary Frances. "So is Father! They must wonder why they haven't been invited to see our gardens."

"When are you going to ask them?" Eleanor inquired.

"Why, don't you remember? When we give our garden party."

"That's to be about the first of September, I believe," said Billy.



## CHAPTER LIII

### MARY FRANCES' GARDEN PARTY

"**T**HERE!" Mary Frances looked up from her writing. "That is the last invitation, all ready for the envelope. Eleanor, did you hear?"

"I heard," her little friend laughed, "but I was so busy putting the last curl to the tail of the address on the last envelope that I couldn't pay attention."

"Oh, I am so much obliged to you for addressing them," said Mary Frances. "Let me see if I've thought of every one," laying them aside as she counted.

"Here is Grandma's; here, Aunt Maria's; here, your father's; here, Bob's; and last, but very important, Mother and Father's. Let's go mail them."

"What did you say to Aunt Maria?" Eleanor inquired as they walked along.

"I said," Mary Frances recited:

[310]



"DEAR AUNT MARIA:—

"Please come to my Garden Party next Wednesday. We've been industrious enough this Summer to please even you!

"I don't want to tell you any more, for fear I'll spoil the surprise, but we won't have a bit nice time unless you are with us. I'll never forget how pleased you were with my cooking surprise.

"With love, which I want to give you in real hugs, and real kisses,  
"MARY FRANCES."

"Mary Frances, do you dare hug your Aunt Maria? I'd never dare, I'm sure. The very thought scares me! She always seems so cross."

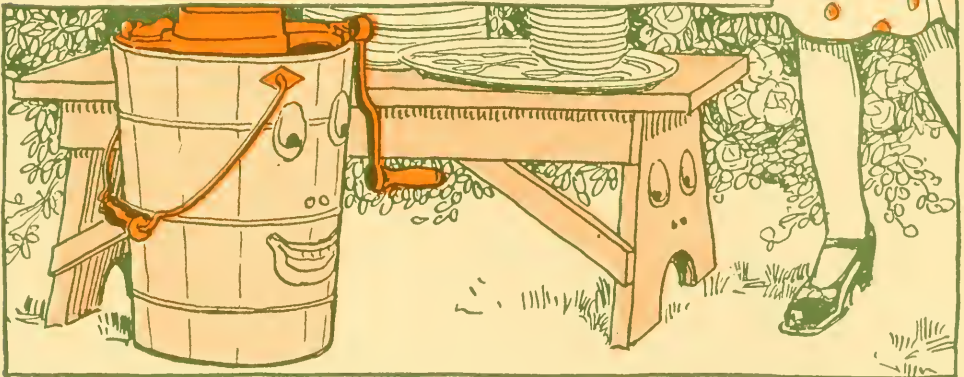
Mary Frances laughed. "I used to feel the same way," she said, "but after I found out that she was cross just because she was afraid——"

"Afraid? Your Aunt Maria afraid!"

"Yes, afraid, and ashamed that somebody might think she was loving and kind. When I found that out, I felt different. I was sorry for her."

"I know she loves you dearly," Eleanor admitted.

"She's a dear old bear who growls just for fun, and





I hope she comes to the party. Grandma will come, I know, and——”

“So will Father and Bob,” finished Eleanor.

“Oh, I can scarcely wait for Wednesday!”

They were at the post office by this time. On their way home they discussed their plans.

“Billy will bring the tables to the play house on Tuesday,” said Mary Frances, “and we’ll all do everything we can to get ready.”

“What shall we have for refreshments?” Eleanor asked.

“Why, I think it would be lovely to have everything from our garden—of course, excepting the ice-cream,” Mary Frances laughed. “I wonder how this would be:

Tomato and Lettuce Salad with Mayonnaise Dressing

Creamed Potatoes

Cucumber Relish

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Sandwiches

Green Pepper and Cheese

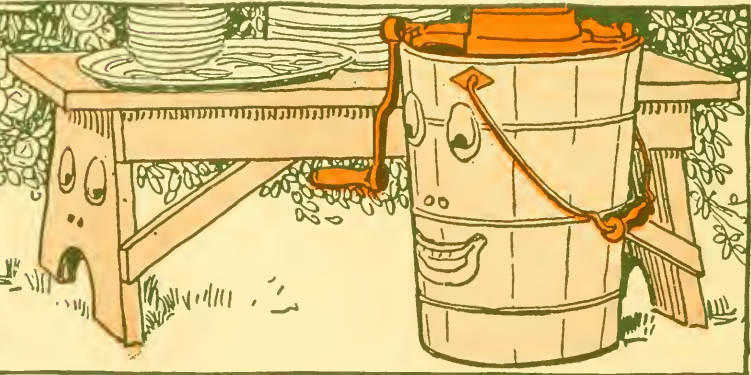
Nasturtium

---

Ice-Cream

Spearmint Jumbles

Coffee



"Oh, Mary Frances, that sounds perfectly wonderful to me!" exclaimed Eleanor, "but how can you manage to serve so many things?"

"It won't be hard to manage," Mary Frances answered, well pleased. "I've thought it all out carefully. We can have the mayonnaise dressing all ready for the salad the day before, and can make the sandwiches Wednesday morning if we wrap them in waxed paper."

"How do you make those sandwiches, Mary Frances?" asked Eleanor.

"Oh, I'm glad you asked that, for they are so good, Eleanor. Use—

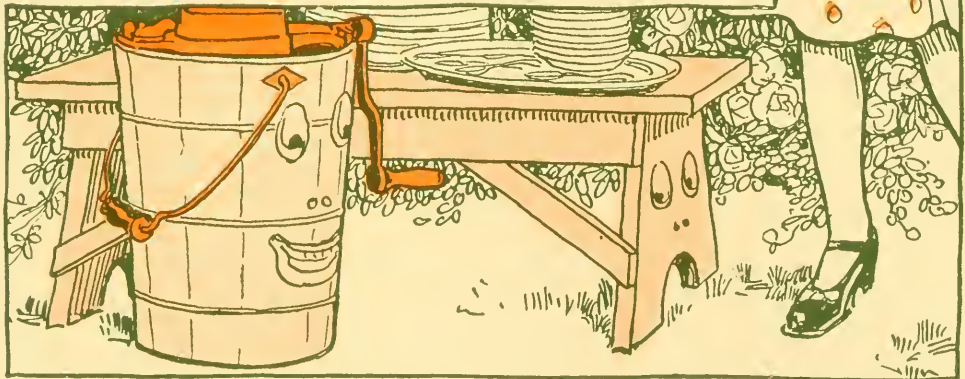
FOR TWELVE GREEN PEPPER SANDWICHES

- 3 five-cent packages cream cheese
- 2 green peppers, chopped very fine

Mix together and spread on well-buttered thin slices of bread. Cover each with another buttered—

"As if I didn't know that much!" exclaimed Eleanor. "How do you make the other kind?"

"Oh, the nasturtium sandwiches? Why, you use



the chopped stems and a few flowers of the nasturtium plant between the bread. They taste something like the daintiest of radishes."

"I can make the sandwiches!" Eleanor exclaimed. "They are easy. Now, what about the potatoes?"

"They can be creamed in the morning and warmed in the oven just before serving."

"Oh, that's fine! What about the spearmint jumbles you mentioned?"

"I made up that recipe," Mary Frances confessed. "You see, I'm so crazy to have everything from the garden that I just had to be original."

"I'm wild to hear about this recipe!" Eleanor said. "Let's go into the play house and I'll write it down."

When they were seated, Mary Frances began:

"I looked all over the garden, Eleanor, and I couldn't think of a thing we could use in making candy, and I certainly think we need candy, don't you?"

"Indeed, I do!" Eleanor agreed.

"Suddenly I spied the spearmint growing with my other herbs. 'The very thing!' I thought, so I just made up a very simple recipe for—



## SPEARMINT JUMBLES

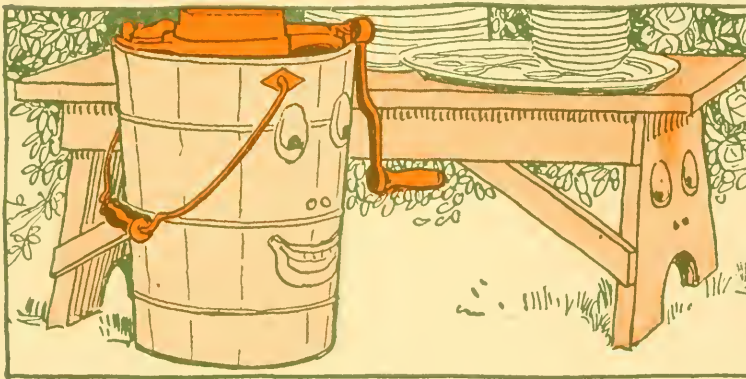
2 cups sugar  
 $\frac{1}{2}$  cup water  
1 cup mint leaves

1. Wash the mint leaves.
2. Put the sugar in a saucepan. Add the water.
3. Stir sugar over the fire until dissolved.
4. Cook quite hard until the sugar begins to turn brown. Take from the fire. Add mint leaves, stirring hard.
5. Turn out on a buttered pie plate. Add 2 tablespoons butter.
6. Stir hard until candy falls apart or crumbles into small pieces.

"My, but you are smart, Mary Frances!" declared Eleanor. "I wish I could do such things—but what if some people don't care for spearmint flavor?"

"We could make some fudge." Mary Frances met the suggestion, "but I think everybody ought to think it good this time because it's from our garden. I didn't like to plan for ice-cream even because it didn't grow there."

"Don't you wish it did!" cried Eleanor.





"If it did, I'd have acres of ice-cream plants!" Mary Frances laughed.

"We'll cook everything right here in the play house," she continued; "that little stove will do all that we want."

"Oh, won't it be too grand for anything!" Eleanor hugged Mary Frances in enthusiasm.

So when Tuesday came, they set to work, and carried out their plans.

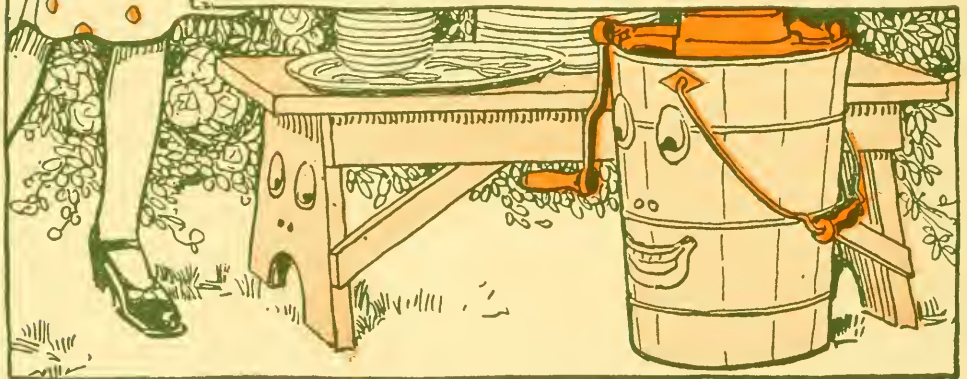
"Who's to serve the feast?" asked Billy, as he arranged the plates according to the girls' directions.

"Oh, we'll do that," answered Mary Frances. "All we ask you to do, Billy, is to open the freezer and dish the ice-cream."

"Believe me, you may count on me, ladies," said Billy, bowing. "Count on me for a large share in the ice-cream work, although I can't see that there will be much work, for I ordered it in the form of bricks."

"Billy, you're a brick!" laughed Eleanor.

By twelve o'clock Wednesday, the refreshments were ready, and the girls went to the big house to "doll up," as Billy said.



Mary Frances glanced out of the window just as she fastened the last button of Eleanor's dress.

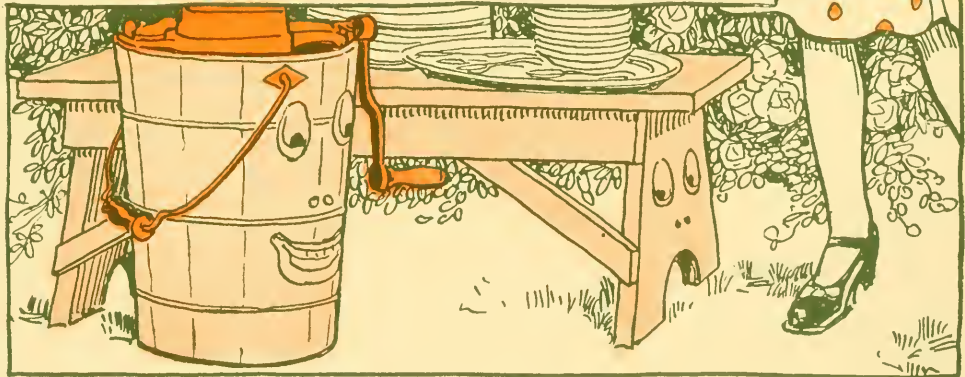
"Here comes Aunt Maria!" she cried and bounded down-stairs and out on the porch to meet her. While she was hugging her, Eleanor's father and Bob appeared on the scene, and you can imagine how happy the little girls were.

"Where can Grandma be?" Mary Frances asked, after her mother and father had welcomed everybody. "Oh, there comes the station auto-bus. It's going to stop here!" Surely enough it stopped, and out stepped the dear old lady, whom everybody tried to greet at once.

In the midst of the confusion, Mary Frances and Eleanor slipped away to the play house, and a little later Billy and Bob piloted the guests to the play house garden.

"Mistress Mary, never contrary,  
Will show how her garden grows,"

announced Bob, leading the way up the path, where Mary Frances shook hands with each one in a most grown-up, dignified fashion introducing them to "My



friend, Miss Eleanor," just as Mother Paper Doll had done in the Housekeeper story.

"So this is you children's garden surprise, dear! Isn't it beautiful!" There were tears of joy in their mother's eyes.

"Were there ever such children!" exclaimed their grandmother.

"If there are any more wonderful, I have yet to see them!" Aunt Maria's nose went up into the air with pride.

"Jolly good gardener, Bill!" Bob slapped his friend on the back.

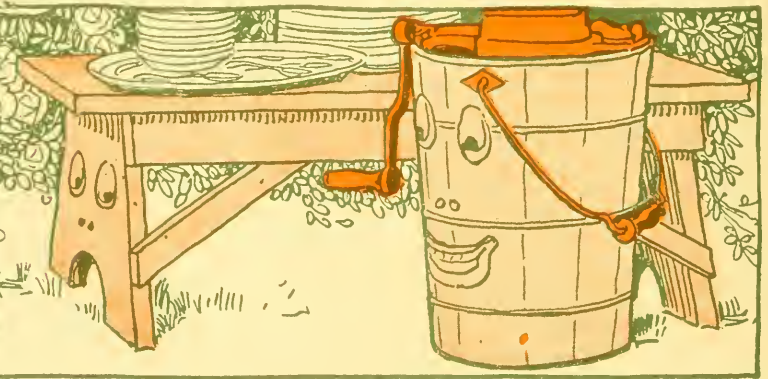
"What you'll be next year," Billy retorted.

"Father hasn't said a word!" Mary Frances suddenly discovered.

"I've been speechless with surprise, dear," he said. "It certainly paid to wait to see such a garden. The flowers are wonderful!"

"Why, haven't you seen the garden before this?" everybody asked, and he told the whole story.

As he finished, Bob and Eleanor's father spoke. "I'm gladder than ever that Bob's to go away to Billy's school!"



Then nearly everybody began to talk at once, saying how much more sensible the ideals of education were to-day than when they were young, and more of such grown-up talk, which gave the boys and girls a chance to slip away to get the refreshments.

"How did you guess we were hungry?" asked Bob's father as Mary Frances served the salad, and Eleanor passed the sandwiches in a dainty basket, trimmed with pink bows.

"Where did you find such beautiful lettuce and tomatoes, dear?" asked Grandma, showing her enjoyment of the treat.

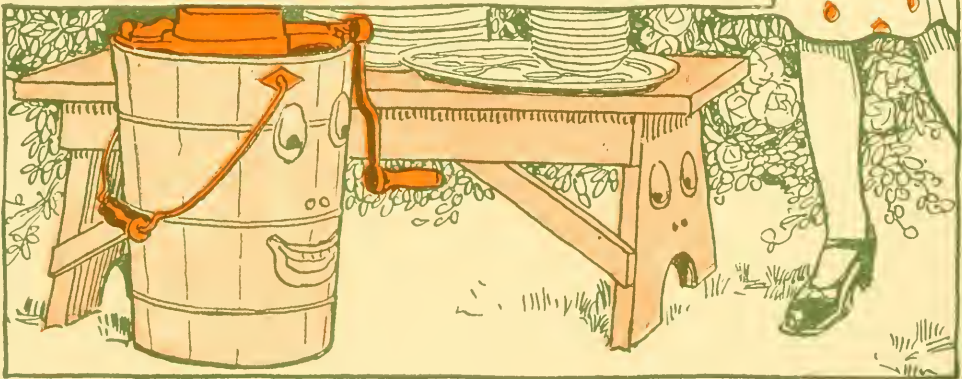
"That's part of the secret," laughed Mary Frances. "After you've tested our vegetables, we'll show you our vegetable garden."

"Gee!" exclaimed Bob, "you don't mean to say you raised these?"

"Everything's from this garden except the ice-cream!" Eleanor asserted proudly.

"Some farmers!" Bob started to say, but his father interposed.

"You forget, son, that you're in a formal social gathering—at a garden party, if you please."





"Please pardon me," Bob begged, bowing to the company.

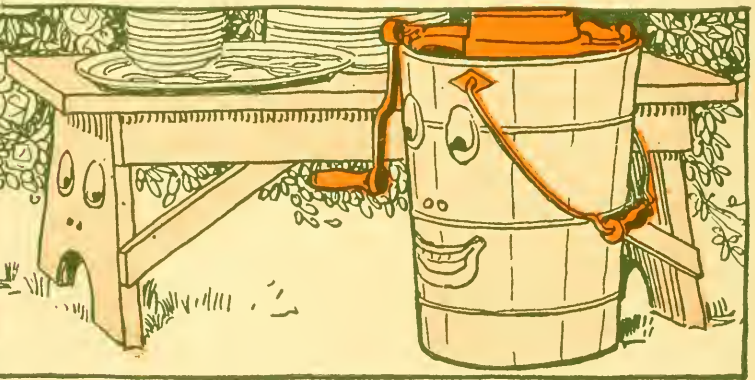
"Let them talk—it's the youngsters' party," somebody whispered so loud that everybody heard, and everybody laughed.

After the ice-cream and coffee had been served, and the bonbon dish of candy was passed, "What delicious mints!" so many people praised, that Mary Frances said she would carry the candy dish with them to the vegetable garden, and all could see the bed of mint where she gathered the leaves for the flavor.

It would be impossible to tell you how happy and proud the children were as they showed their vegetable garden, with its beautiful neat beds bordered with nasturtiums.

You can imagine how they looked, for if you read the garden lists in early chapters of this story, you know what they had growing.

"Everybody may pick a bouquet," said Mary Frances, seizing Eleanor's hand and leading the party to the flower garden. Just as they started, Doctor Hopewell drove up with his son and two daughters.



"We couldn't help stopping," he declared. "You made such a beautiful picture."

They were welcomed with delight, and the girls insisted upon their having some salad and ice-cream.

"Isn't this the most charming thing you ever heard of!" sighed Marjorie Hopewell.

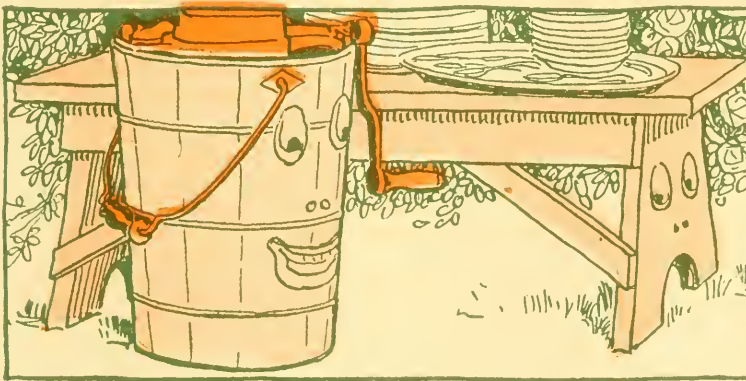
"It's just like a girl's dream come true!" her sister Helen agreed.

"The girls will never get over this. To have peace I'll have to turn farmer yet! Bill and Bob will have to give me pointers!" their brother Harry laughed.

"Indeed, I'd like to see you all doing what these young people have done," their father told them.

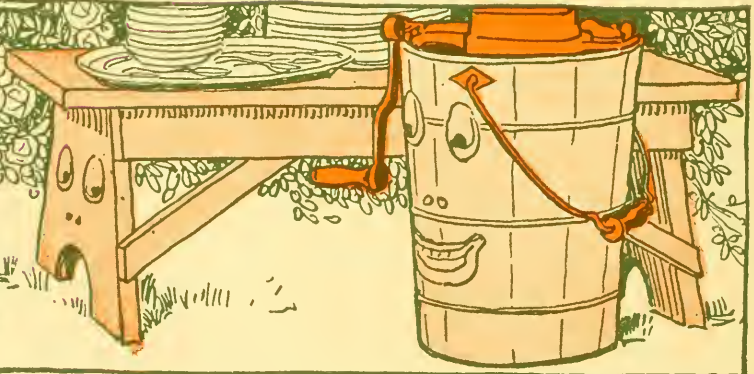
The doctor and his family left in about an hour, with flowers for Mrs. Hopewell, but the other guests stayed until five o'clock, sitting on the easy chairs which Billy had placed along the walk in front of the play house.

The day was so beautiful—not too warm, not too cool; not a rain cloud in the sky, but scattered about with little white fleecy "flocks of lambs" clouds, as Mary Frances said. Perhaps that and the beauty of



the garden made them linger, but they seemed sorry to leave.

“You will all come again! Soon!” Mary Frances and Billy made them promise. “And you’ll come to our garden party next year! We’ll have both Bob and Eleanor for partners then!”



## CHAPTER LIV

### FEATHER FLOP'S CONCEIT

“OH, Feather Flop! Feather Flop!” called Mary Frances, as she carried a pan of the “left overs” of the garden party out to the rooster the next morning.

Feather Flop made some queer gurgling noise in his throat.

“Why, what’s the matter, old fellow?” she asked in alarm.

“Matter?” cawed Feather Flop hoarsely. “Matter? Why, this: I’ve nearly crowed my bill off trying to call you. I’m so hoarse I can scarcely whisper! I grew so weak, finally I had to lean up against the fence to crow!”

“Mercy! Was it as bad as that?” asked Mary Frances. “Why, I must have been so tired out from our garden party that I slept so soundly I didn’t hear. I’m sorry—you must have wanted to see me very particularly, too!”

“‘Our garden party!’” echoed Feather Flop.

[ 323 ]



“Our garden party!’ As though any mention had been made of me!”

“Oh! oh! oh!” cried Mary Frances. “Oh, was that it, Feather Flop? I never thought—really! I supposed I must keep you a secret just as I’ve been accustomed with other fairy folks.”

“Fairy folks!” exclaimed Feather Flop. “Fairy folks! I’m not a fairy! I’m a farmer! and even if you don’t remember, it doesn’t change the fact that if it hadn’t been for me, you wouldn’t have had any garden at all.”

“Why, you conceited old fellow!” cried Mary Frances. “How do you make that out? But,” seeing the disappointment on his face, “of course, I appreciate your help. Indeed I do, Feather Flop,” she added.

“Don’t you recollect?” asked Feather Flop. “Don’t you recollect that day when you couldn’t understand the seed catalogue? Who was it that helped you then? Who was it, little Miss?”

He cocked his head and looked up at her expectantly.

“Why, it was you, Feather Flop!” Mary Frances exclaimed. “It certainly was you, my old friend!”



Feather Flop blinked. "I'm glad you can call it to mind!" he remarked. "If you had only just mentioned my name at the garden party, I wouldn't have felt so bad."

"Oh!" said Mary Frances.

"Even if you'd just said to me, if you'd just said, 'Feather Flop, old chap, you can't come to the garden party, of course, but you're invited,' I wouldn't have felt as I did."

"Oh, dear!" said Mary Frances.

"If you'd said at the party, 'Now, if my old friend, Feather Flop, hadn't helped me,' or something like that, I'd have been so proud and glad."

"How do you know I didn't?" Mary Frances parleyed under sudden inspiration.

"How do I know? I was there. I was there even uninvited!" declared Feather Flop.

"Why, where in the world were you?" asked Mary Frances in astonishment. "You couldn't have been in the garden, for we were everywhere."

"It's a riddle!" Feather Flop's voice sounded as though he was laughing. "I was in the garden! You can't guess where!"



"Indeed, I can't." Mary Frances shook her head. "Unless you were under something inside the play house."

"No, I wasn't inside the play house," said Feather Flop, in a voice which still sounded like laughter. "Guess again! One more guess!"

"Give it up." Mary Frances acknowledged her defeat.

"Why, I was outside the play house on the roof!" declared the rooster triumphantly.

"Oh!" cried Mary Frances, delighted. "So that is where you were! You really were at the party, after all! Now I shall feel better. If I'd only realized how you felt, I'd loved to have invited you and to have had you there!"

"That makes it all right," said Feather Flop brightly. "I only thought you'd forgotten me and maybe didn't want me! That's what made me so sad!"

"Not want you!" exclaimed Mary Frances. "Not want you! I think you are the most wonderful rooster in the whole wide world, and the smartest——"

"Farmer?" asked Feather Flop anxiously.

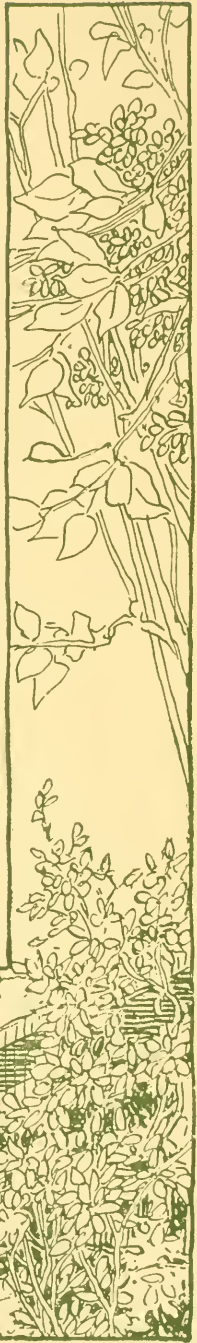


"Yes, indeed, farmer!" declared the little girl, picking him up and tenderly smoothing him. "If it hadn't been for you, I doubt if I'd have had a garden!"

"Oh, I'm the happiest rooster in the wide world!" sighed Feather Flop, "and if I weren't just a plain farmer rooster, I'd turn into a fairy prince, dressed in blue satin trimmed with gold and diamonds, but as it is—I'm hungry!"

"Come!" laughed Mary Frances. "Come, eat," she said. "I like you far better than any fairy prince, for you're my own dear friend—my farmer, Feather Flop."

And Feather Flop looked so proud you might have imagined him in tiny overalls and sun hat.





## CHAPTER LV

### BOB AND BILLY'S VACATION

**T**HE boys had been at school several weeks, and Mary Frances and Eleanor were well started in their studies, when one golden-leaved day in October, each girl received a letter from her brother as they stopped at the post office on their way from school.

"We're coming home on Friday," both letters read alike, "to plant the bulbs, and we'll expect your help after school, and all day Saturday, if necessary; and we'll hope—just hope—for some play house cooking."

"Isn't it comical for them to say just the same thing!" exclaimed Eleanor.

"Won't we have fun!" Mary Frances answered. "Let's see, this is Wednesday. I wonder if Billy wrote to Mother." And away they flew to find out.

"Mother, you've known for several days, I just believe," declared Mary Frances, whereat her mother laughed and confessed that she had known, but that

[328]



it was her turn to keep a surprise in store for them. Then all three fell to making plans for the visit.

"We'll give a dinner in the play house," decided Mary Frances, "and invite you and Father."

"Oh, you children would have more pleasure without grown-ups," protested her mother.

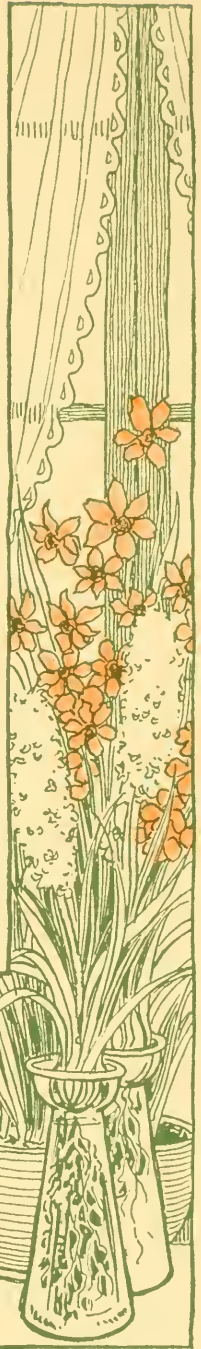
"Not a bit of fun without *our* kind of 'grown-ups,' you mean," Mary Frances contradicted lovingly. "Doesn't she, Eleanor?"

"Yes, indeed!" Eleanor answered emphatically.

"You dear children!" was all the mother said, but the girls knew that their invitation was accepted.

When the boys came, there was so much to talk about that they didn't get to work until Saturday. There were stories of the jokes which the second year fellows played on the "Freshies," and of the winning of the big football game, and of the rigid training in athletics, and a volume of other talk new to the girls; at least, new to Eleanor, and equally entertaining to Mary Frances and her parents.

"I wrote 'the governor' all about that," said Bob as he finished relating one particularly amusing incident.



The girls looked puzzled.

"He means his 'old man,'" explained Billy.

"Oh, Billy! How you talk!" cried Mary Frances.

"Do you mean his father?"

"Sure guess!" nodded Billy.

"Well, Father, if that's the way they learn to talk, I shouldn't think you'd let them go back." Mary Frances pretended to be indignant.

But he only laughed, saying, "Oh, they'll outgrow it." And the boys took up anew the threads of their stories.

It was quite late before they got to bed, but they were up bright and early Saturday morning.

"We fellows haven't time now to explain why bulbous plants bloom so readily in the Spring."

"We know; don't we, Mary Frances?" Eleanor exclaimed without thinking.

Mary Frances pursed her lips to look like "Hush!" and shook her head, which made Eleanor remember that Jack-in-the-Pulpit and Bouncing Bet's lessons were to be a secret.

"If you know so much, Nell," Bob replied mockingly, "perhaps you can tell the difference



between a corm, a rhizome, a tuber, and a fleshy root."

"Well! Well!" cried Mary Frances, "I guess we better not lay claim to any more knowledge," and she winked at Eleanor, who nodded understandingly.

"But," said Billy, opening his note-book, "we will tell you a little something about—

#### THE PLANTING OF BULBS

Anyone can have flowers which grow from bulbs.

They require so little care that everybody can be cheered in the early Spring with the sunshine of daffodils, and the fragrance of hyacinths, and the gay color of tulips; which, after the dullness of winter, are appreciated more, perhaps, than any other flowers.

Their leaves and flowers being wrapped with their food supply, in the storage bulbs, it takes only the call of a few days of warmth and sunshine to bring them into bloom.

So every one should—

#### PLANT SPRING-FLOWERING BULBS IN AUTUMN

In October or November is the best time of the year for planting Spring-flowering bulbs; in localities where the Winters are not severe, December is perfectly safe.

The bulbs should have time to make some roots before the ground freezes.



### HOW TO PLANT BULBS

Bulbs do not like clayey soil, nor do they like dampness; neither do they thrive on fresh manure.

Remembering this, you already know just about what kind of soil they need—well-drained, loamy soil, full of humus or well-rotted manure, and some sand; for sandy soil is needed by all bulbs.

If you do not have such garden soil, dig quite large holes with your trowel, and fill them with such a mixture. If you do not have well-rotted manure, use a sprinkling of bone meal.

### DEPTH TO PLANT

A good rule for the depth to plant bulbs is twice their length; but sometimes it pays to plant them deeper to protect them.

If planted deeper they come into bloom a little later, but the protection of the depth may save them from destructive freezing.

### WHERE TO PLANT BULBS

Blooms of bulbs look beautiful anywhere. One need not hesitate to place them in masses (a number near each other) in the garden borders, for after they bloom and die down, there will be no bare spots if some annuals, with short roots, are grown over them; such as alyssum, ageratum, violas, verbenas.

Plant the low-growing sorts of bulbs in the front, and the taller kinds in the back of the garden.



Cover, when the ground begins to freeze, with several inches of dry leaves or grass.

Most bulbs do best if not lifted after blooming; that is, let them be in the ground for several years. Then the new bulbs which have grown on the old ones will need to be separated and planted.

Narcissus and daffodils may remain many years without disturbing.

Hyacinths do not do as well as other out-door hardy bulbs, becoming less vigorous each year. They do a little better if the bulbs are lifted and dried in the Summer and replaced in the Fall.

If you plant—

#### BULBS IN THE GRASS

One caution is necessary: after they are through blooming, wait until the green leaves turn yellow before cutting the grass. If the leaves are cut before they turn, the bulbs will die.

Nowhere else do such flowers look so beautiful as in the grass.

To plant small bulbs, such as crocus, dig holes in the turf with an apple-corer, or with a "dibble," which is a pointed stick. Throw in a tiny bit of bone meal and some sand. After placing the bulb, being certain to put the root end down, and the pointed top up, cover with sand and pack the turf firmly back in place.


A better way is to lift the turf with a spade. Dig, to loosen up the soil; add a little bone meal; plant bulbs, replace sod.

To place them in an artistic position, throw down a handful and plant where they fall.



## CHAPTER LVI

### DAFFODIL AND OTHER BULBS



“GOOD!” Bob approved as Billy paused, “that’s a splendid lecture, Bill.”

“Isn’t it?” cried Eleanor. “I believe we know almost everything now about planting bulbs.”

“What kinds are we going to plant?” asked Mary Frances, looking at the large package the boys had brought with them.

They opened it and Bob began to speak: “Young ladies,” he commenced; then, “Oh, I say, Bill, I can’t come this ‘professor act.’ You’d better do the lecturing!”

“No, sir-ee!” declared Billy. “It’s your turn now. Go ahead.”

“Oh, go on, Bob,” cried Eleanor.

“Please do!” begged Mary Frances.

“All right, then,” replied Bob, laughing, “only don’t expect much erudite stuff from humble me—even when I read my notes.”

[334]



Then, opening his book, and clearing his throat, he started once more: "Listen, young ladies, and you will hear of—

#### BULBS TO PLANT IN THE FALL

##### *Snowdrops*

The earliest Spring garden flower, sometimes coming literally out of the snow as early as February; but usually blooming in March. The blossoms are small, white, bell-shaped, not in the least showy. Only one who has come upon them unexpectedly blooming in his garden knows the thrill of pleasure which they bring. As they are small and inexpensive, plant a number of bulbs about two inches apart, to cover an irregular circle. Once planted they take care of themselves.

##### *Squills (Scilla)*

Near the Snowdrops, plant in the same way, a dozen Siberian Squills. Beautiful blue flowers, which will bloom perhaps while some of the Snowdrops are in blossom. Once planted, do not disturb.

##### *Grape Hyacinths (Muscari)*

Little stalks of tiny tight blue bells, or white, somewhat the shape of tiny fairy-folks' grapes. Everyone should have a dozen or so of these pretty early Spring-flowering bulbs.





*Narcissus* or *Daffodils*

Everybody knows a daffodil, for breathes there a human being with soul so dead as not to feel warmth of heart at the sunshine glow of its yellow petals?

But not everybody knows the difference between daffodils and jonquils and narcissus.

The fact is, they are all sold by dealers under the name *Narcissus*.

Every *Narcissus* has a "cup and saucer" form. In some, the cup, or *trumpet*, is tall; in some, it is short; in others, it is double: and according to the shape of the cup, each *Narcissus* is named.

All dealers agree that the type with the double cup is called *daffodil*. It is not generally thought so attractive as the single sorts.

The single sorts are of the following different varieties of *Narcissus*:

- |                    |   |
|--------------------|---|
| <i>Narcissus</i> { | <i>Giant Trumpet</i> . Very showy, with large cups and saucers. Buy "Emperor," and "Empress."   |
|                    | <i>Medium Trumpet</i> . ("Star" <i>Narcissus</i> .) Not so large nor attractive, but very graceful. Buy "Barii Conspicuus."   |
|                    | <i>Poet's Narcissus</i> . Old-fashioned favorite. Charming fragrant white flowers, with cups edged with red. Buy "Poeticus" (Pheasant's Eye) or "King Edward VII." Very easily grown. |

*Jonquils* are the small-flowering type of *Narcissus*. They are easily grown, and many have a charming fragrance.



*Polyanthus Narcissus* or Nosegay Daffodils are the little clustered kind grown indoors.

All these distinctions, and many others, are made by the dealers, but almost everyone of us thinks of all the yellow *Narcissus* as Daffodils. They grow so readily, with almost no care, that everyone, with only the tiniest garden, should plant at least a half dozen bulbs of the "Giant Emperor."

Within a few years after planting, the Spring will bring dozens of blossoms of—

"Daffodown-dilly,  
Come up to town,  
In a green petticoat  
And a gold gown."

#### *Hyacinths*

Single sorts do better than double. As a rule, hyacinths do not improve from being kept in the ground all Winter; they may be taken up and stored in a cool cellar over Winter to be planted in the early Spring; but a better plan is to let the old bulbs gradually "run out," and plant a few new bulbs each Fall. These are sent to dealers every Autumn from Holland, because the climate of Holland is nearly perfect for bulb growing. Sometimes hyacinths do quite well for a number of years kept in the ground out-of-doors.

Their charming fragrance, color and form, make them a most attractive flower. They come in white, pinks and purples.



### Tulips

The most gorgeous of all Spring-flowering bulbs.

*Early Single.* Grow about eight inches high; come in pinks, reds, yellows, white.

*Early Double.* These are not so beautiful as the single varieties.

*Cottage Garden* (May flowering). A tall variety, growing about eighteen inches high, blooming much later than the *Early Single*.

*Darwin.* The most desirable of all tulips, but not very early. The tallest grow nearly thirty inches high. Globe-shaped flowers of most brilliant shades of reds, purples, pinks and white. If yellow is desired, buy one of the *Cottage Garden*, for there are no yellow Darwins.

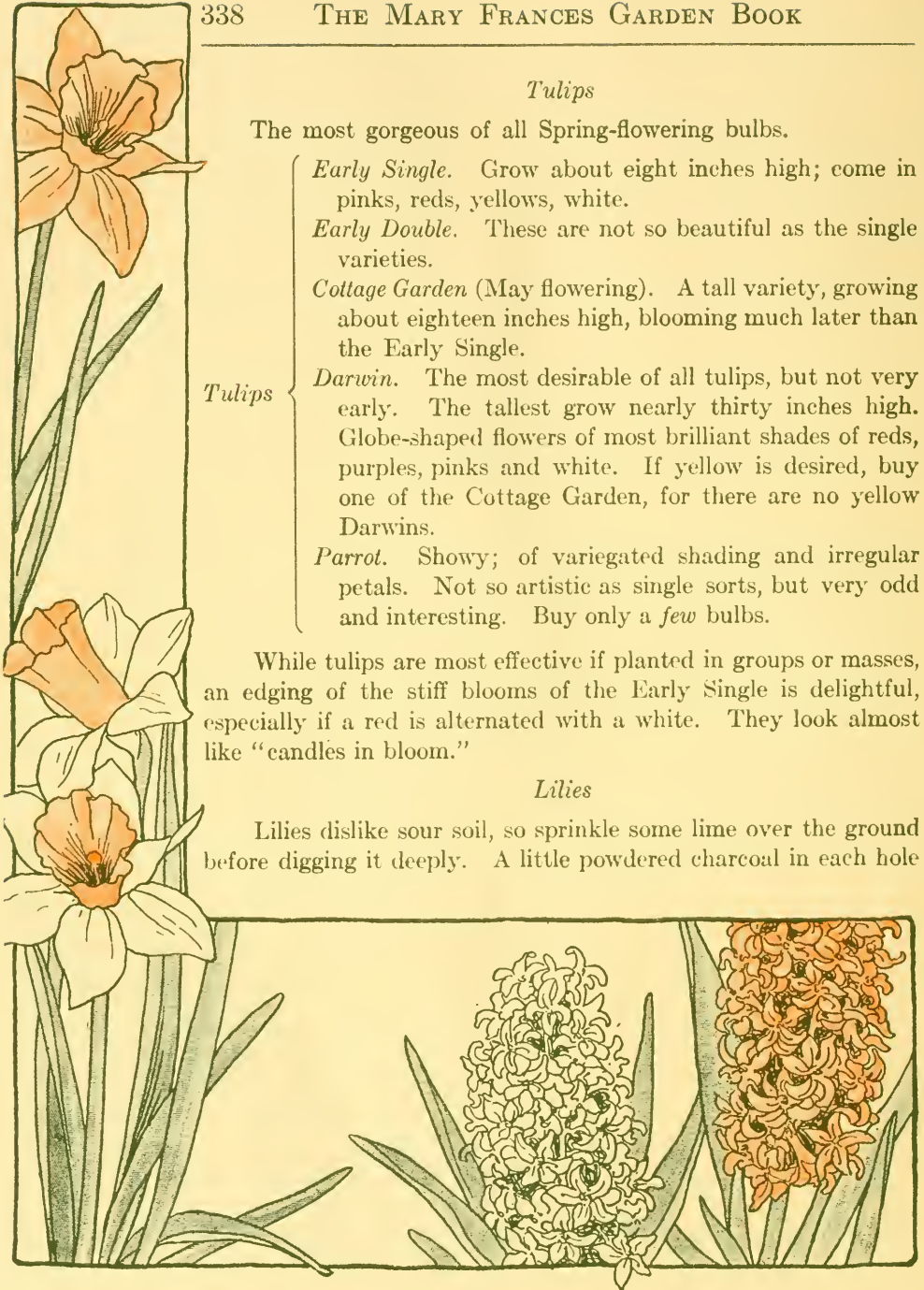
*Parrot.* Showy; of variegated shading and irregular petals. Not so artistic as single sorts, but very odd and interesting. Buy only a few bulbs.

Tulips

While tulips are most effective if planted in groups or masses, an edging of the stiff blooms of the *Early Single* is delightful, especially if a red is alternated with a white. They look almost like "candles in bloom."

### Lilies

Lilies dislike sour soil, so sprinkle some lime over the ground before digging it deeply. A little powdered charcoal in each hole



helps, too, and it is well to dust each bulb with flowers of sulphur to protect from worms and mildew.

Lilies love shade, and do best among other perennials because they will shade their roots, which spread out near the surface of the ground. By the way, since they spread near the surface, do not "cultivate" lilies. Do not disturb the bulbs, which will bloom for years if planted right in the first place. Most lilies bloom in Mid-summer.

*Plantain Lily* (*Funkia*). The most easily grown, with spikes of blooms about eighteen inches high, in white, blue or lavender.

*Yellow Day Lily* (*Hemerocallis*). Grows anywhere, sometimes killing out other flowers. Blooms on stems about thirty inches high.

*Madonna Lily* (*Candidum*). Beautiful, stately, tall white lilies with delightful fragrance. They resemble "Easter Lilies." Cover bulbs with only two inches of soil.

*Red Spotted Lily* (*Lilium Speciosum Rubrum*). A tall Japanese lily, easily grown. Large white flowers dotted with red, borne on a tall stem.

*Tiger Lily* (*Tigrinum*). Orange spotted with black. Very easily grown.

*Lilies-of-the-Valley*. Grown from "pips," or tiny bulbs. Plant in the Spring in rich earth. They like some shade.

Hardy Lilies



*Iris (Flags)*

*Spanish Iris.* Exquisite orchid-like blooms, in white and rich shades of blue, yellow, bronze.

*German Iris.* Very easily grown and very desirable.

## BULBS TO PLANT IN EARLY SPRING

Among these are:

*Tuberoses*

Plant in May, and again in June and July, in order to have a continuation of bloom of these powerfully fragrant and beautiful white flowers.

*Gladiolus*

These bulbs are planted in May and June at two weeks intervals, in order to have blooms from July to October. They like rich soil, and powdered sheep manure, which is sold by the pound, is a good substitute for rotted stable manure. They like the sunny places.

The bulbs of both tuberoses and gladiolus should be taken out of the ground in the Fall after the foliage becomes yellow. The stems are cut off and the bulbs dried on an airy shelf, or any place which is neither very warm nor very cold. They are set in the ground again in the Spring.

Cannas and dahlias grow from fleshy roots and are planted in the Spring also. They are lifted and dried in the Fall.



If your garden space is small, the following selection of bulbous plants will give a great deal of enjoyment:

#### HARDY BULBS FOR A SMALL GARDEN

- 6 Snowdrops
- 6 Grape Hyacinths (2 white, 4 blue)
- 6 Emperor Daffodils
- 6 Poet's Narcissus (Pheasant's Eye)
- 6 Early Single Tulips
- 12 Darwin Tulips (3 each, of four different colors)
- 3 Spanish Iris
- 6 German Iris

#### GROWING BULBS INDOORS

It is very interesting and delightful to grow bulbs indoors, where the warmth "forces" them into bloom in the cold winter months. If they are managed in the right way, you may have blooms from Christmas on. Do not attempt to have over a half dozen pots the first year.

Bulbs may be grown indoors in pots or in prepared fibre, which may be bought of a dealer.

If grown in pots, prepare a rich soil of sand and leaf mold. If impossible to get leaf mold, use a sprinkling of bone meal. Place some pieces of broken flower pots or pebbles in the bottom of the pots to drain the water off, or the bulbs will mold.

If grown in prepared fibre, moisten the fibre before putting



in the pot, but do not make it wet enough to wring. Plant bulbs as in soil, but do not pack in tight. After watering, turn pot on the side to drain off the water. A piece of charcoal in the bottom of the pan or pot keeps the fibre sweet.

Hyacinths do well when grown in glass vases. The glass vases used are made for the purpose, and hold the bulb just above the water—not touching.

The main point in growing bulbs indoors is to arrange to keep them growing in a *dark, cool* place until the roots have formed and the leaves show about three inches.

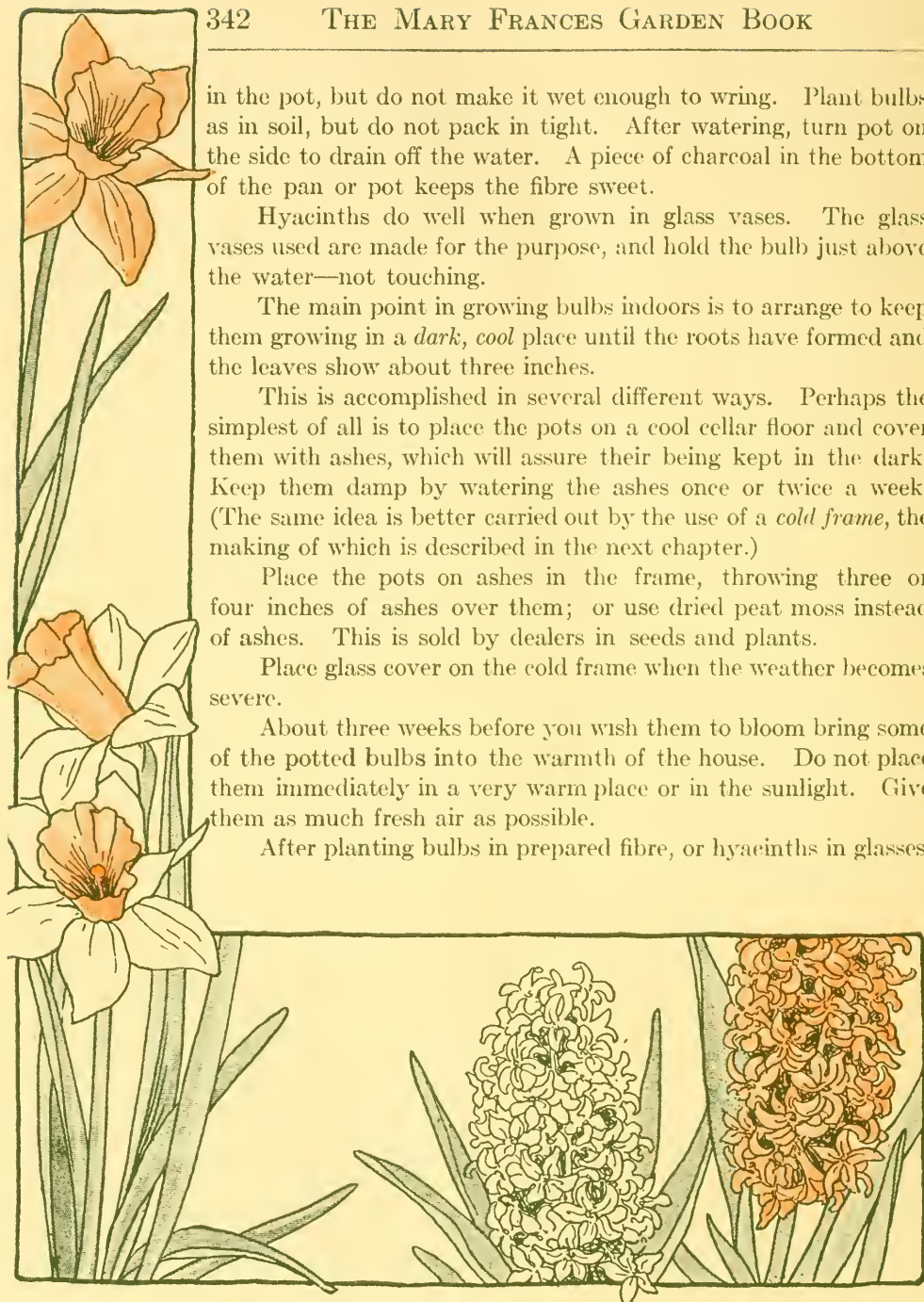
This is accomplished in several different ways. Perhaps the simplest of all is to place the pots on a cool cellar floor and cover them with ashes, which will assure their being kept in the dark. Keep them damp by watering the ashes once or twice a week. (The same idea is better carried out by the use of a *cold frame*, the making of which is described in the next chapter.)

Place the pots on ashes in the frame, throwing three or four inches of ashes over them; or use dried peat moss instead of ashes. This is sold by dealers in seeds and plants.

Place glass cover on the cold frame when the weather becomes severe.

About three weeks before you wish them to bloom bring some of the potted bulbs into the warmth of the house. Do not place them immediately in a very warm place or in the sunlight. Give them as much fresh air as possible.

After planting bulbs in prepared fibre, or hyacinths in glasses,



keep them in a dark, airy closet until the roots have formed, which will be in about six weeks. Then bring them into warmth and light. The roots of the hyacinth should reach the bottom of the glasses before bringing them into the light.

Daffodils and single tulips, crocuses, polyanthus narcissus (often grown in pebbles in water) all are easily forced into bloom indoors.

“But,” added Billy as Bob drew a long breath, “growing bulbs indoors is a rather tedious experiment, and better not be attempted by young children,” as he pulled Mary Frances’ hair ribbon untied.

“Well, neither of you would have known much, Mr. Superior Knowledge,” laughed Eleanor, “if you hadn’t studied this all within a week or so.”

“Let’s begin to plant,” was Billy’s answer.





## CHAPTER LVII

### BILLY BUILDS A HOTBED

**D**URING the Christmas holidays the children made wonderful plans for their gardens.

"Everything should be started very early," said Bob, airing his newly acquired knowledge, "and the best place to start seeds is in a hotbed."

"I tell you what we'll do, Bob," Billy suggested. "Let's come home in March and build one!"

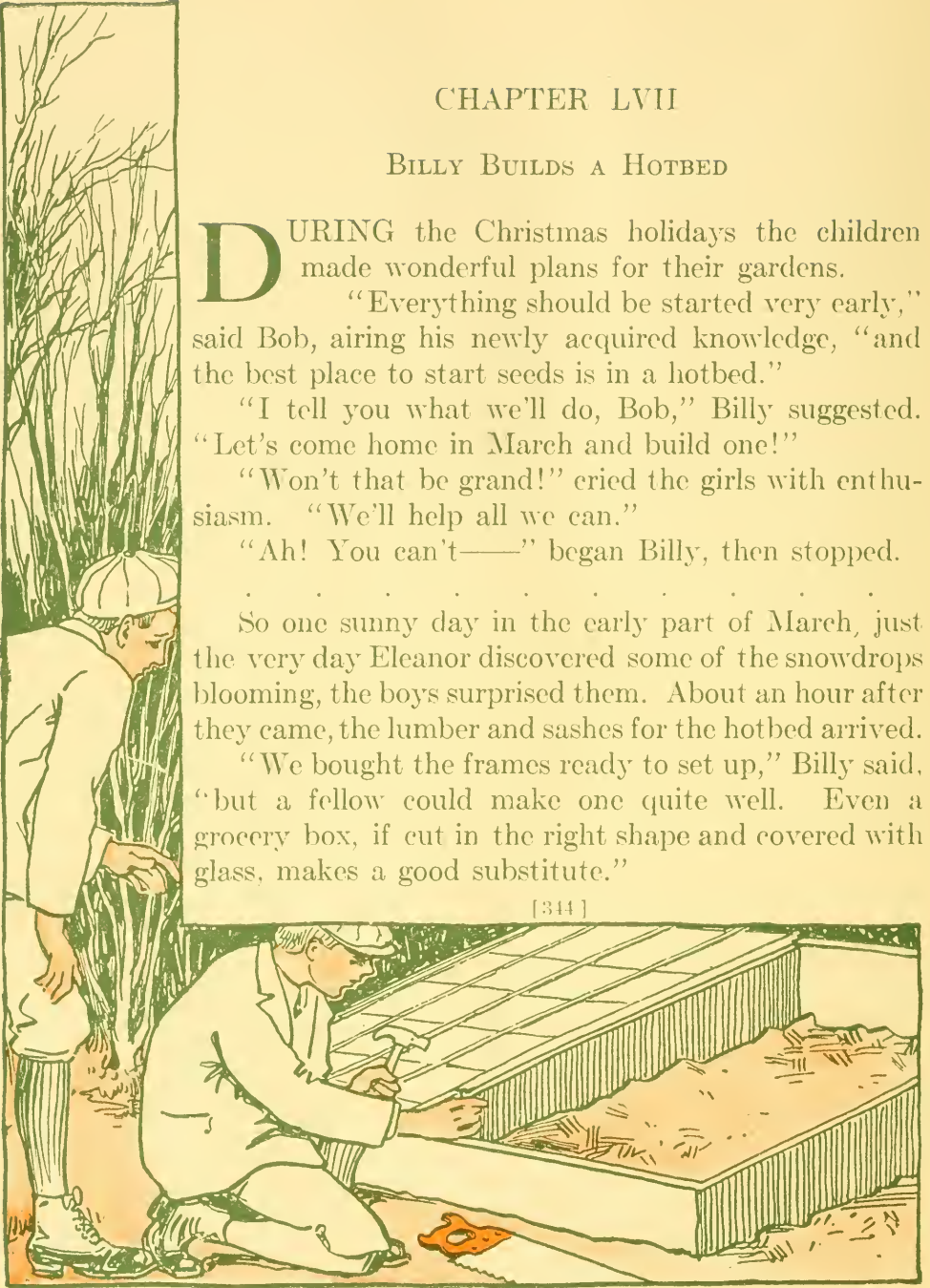
"Won't that be grand!" cried the girls with enthusiasm. "We'll help all we can."

"Ah! You can't——" began Billy, then stopped.

So one sunny day in the early part of March, just the very day Eleanor discovered some of the snowdrops blooming, the boys surprised them. About an hour after they came, the lumber and sashes for the hotbed arrived.

"We bought the frames ready to set up," Billy said, "but a fellow could make one quite well. Even a grocery box, if cut in the right shape and covered with glass, makes a good substitute."

[344]



"Yes, we made that kind at school for practice," added Bob, and to show how well he had learned his lesson, he started to dig where they had decided to place the hotbed.

Meanwhile Billy referred to his useful note book, and explained what they were about to do. "The situation is very important," he said, "for we learned at school that a—

#### HOTBED

should be sheltered from the north winds; so, if possible, place it on the south side of a large building.

Let it slant toward the sunny south, where the glass sash will catch the sun's rays.

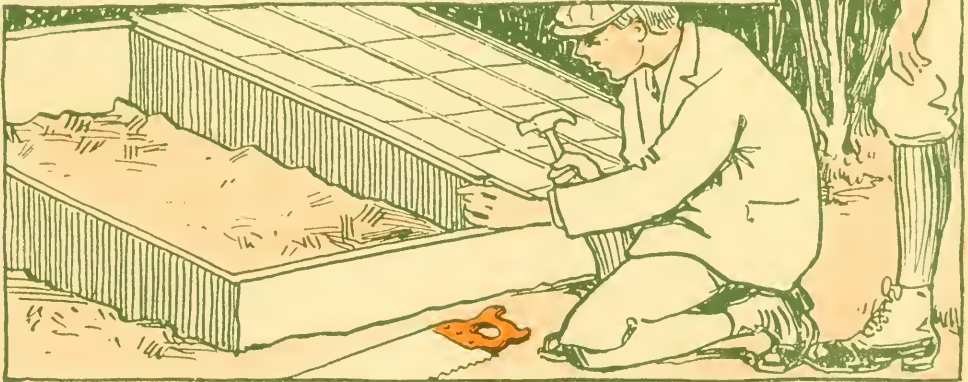
You see, a hotbed is a tiny greenhouse. In both a greenhouse and a hotbed, artificial heat is supplied.

Greenhouses are heated by steam or hot water pipes: ordinary hotbeds are heated by fresh manure, which, in the process of decomposing, gives off a great amount of heat.

Heat, air and sunlight are essential for plants' growth.

The slanting glass sash catches the sunshine, and holds in the heat which the manure gives off. The sashes are raised a little in the warmest part of each day, which gives the plants air.

The frame is generally about eighteen inches high in back and twelve inches in front.



Dig nearly two feet deep, in a space a foot wider and longer than the frame.

Get ready a pile of fresh horse manure which has been mixed with one-third as much bedding straw or litter.

If very dry, sprinkle with water. When, in a day or two, it begins to steam, turn it well over, and in a day or so more, fill the dug-out space to within six inches of the top.

Place the frame on this, and bank up the *outside* with more manure. Cover the manure with earth.

Fill the inside with earth six or eight inches deep, and water with a sprinkler.

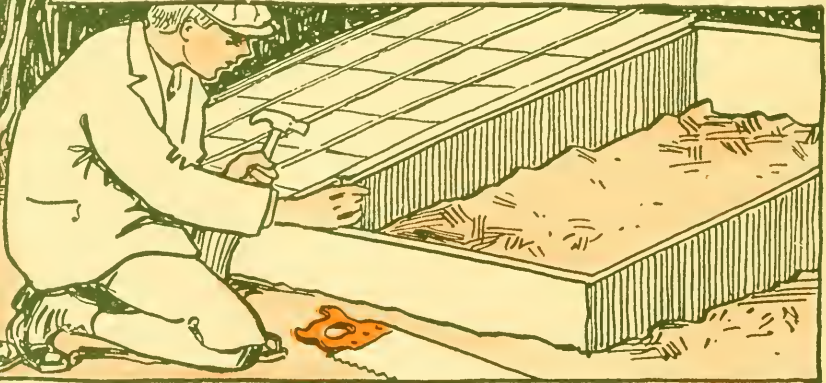
Put on the sash, and place a thermometer inside. It may go up to 120 degrees, but in a few days will come down to 90 degrees, when the bed is ready for planting.

Seeds may be planted direct in the soil, but a more convenient plan is to fill shallow boxes, called "flats," with soil, and plant the seeds in them, placing them in the hotbed. They are easily lifted if a slat is nailed across the middle, when the young plants are ready for transplanting into the—

#### COLD FRAME

The frame and glass sash of a cold frame are just like those of a hotbed, but the cold frame is placed on the ground without fresh manure, sometimes without any manure.

Usually, the earth is dug up to the depth of a foot and mixed with well-rotted manure and the frame placed on *top* of it. Soil is also banked up on the outside for protection from cold winds.



An old cooled off hotbed is really a cold frame.

A cold frame is always useful for—

1. "Wintering over" plants a little too tender to leave unprotected.

2. Transplanting seedlings (young plants) from the hotbed, where they will gradually become accustomed to a cooler atmosphere before they are placed in the outside ground.

Young lettuce plants may be placed in the cold frame in the Autumn, and will supply salad nearly all winter.

Parsley and herbs will stay green the winter through if placed in the cold frame.

Some hardier seeds may be started in the cold frame instead of the hotbed; such as cucumber or melons.

Always cover the sash with burlap or old carpet on very cold nights, to prevent young plants from freezing.

Before the boys returned to school, the children had sowed in their new hotbed the seeds of the following flowers and vegetables:

Ageratum

Alyssum

Corn flowers

Snapdragons

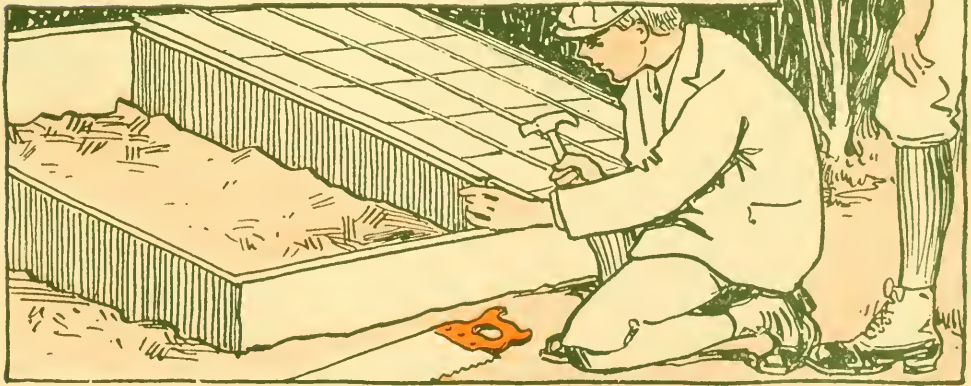
Lettuce

Radishes

Parsley

Tomatoes

Peppers



## CHAPTER LVIII

### SOME HINTS ON GROWING VEGETABLES

MARY FRANCES repeated to Eleanor some of the lessons which Billy had given her on growing vegetables.

She had a little book in which she had taken notes.

"Billy told me," she said, "that when he was little, he used to wonder why things wouldn't grow if they were just 'stuck down' in the ground. You see, he didn't know that the making of the beds was the most important matter of all."

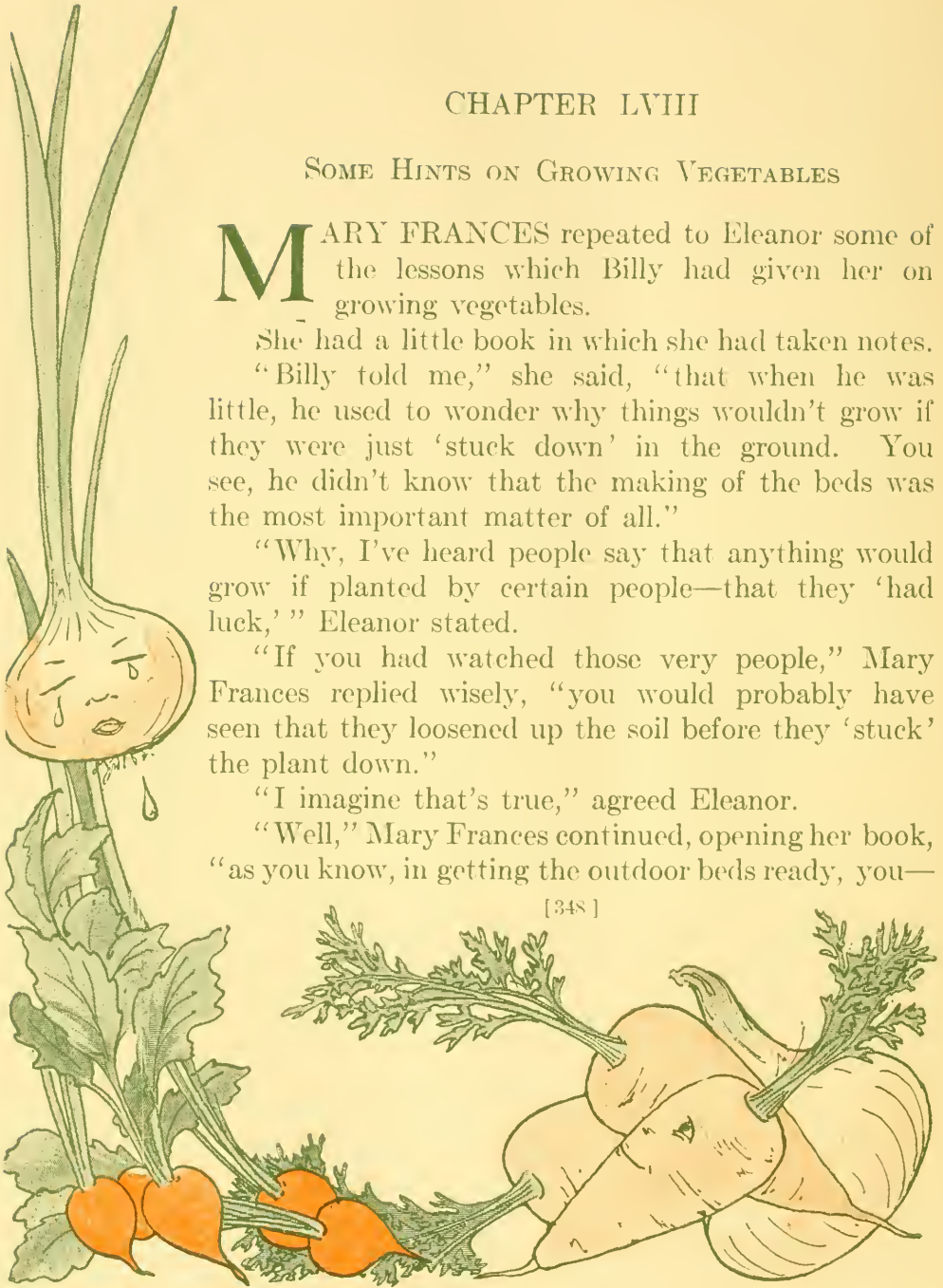
"Why, I've heard people say that anything would grow if planted by certain people—that they 'had luck,'" Eleanor stated.

"If you had watched those very people," Mary Frances replied wisely, "you would probably have seen that they loosened up the soil before they 'stuck' the plant down."

"I imagine that's true," agreed Eleanor.

"Well," Mary Frances continued, opening her book, "as you know, in getting the outdoor beds ready, you—

[348]



- (1) Dig deep to loosen the soil;
- (2) Spread over it well-rotted manure;
- (3) Dig and turn the soil over again;
- (4) Rake the top soil fine and level.

It is a good plan to spread leaves and manure over the ground in the Fall and dig them in in the Spring to make the soil rich and crumbly, or friable.

Did you ever think how many different parts of plants are used for food?

We eat the *roots* of some vegetables; such as beets, carrots, radishes, turnips.

Of others we use the *leaves*; such as lettuce, celery, cabbage, spinach, parsley.

Of others, the seeds; as beans, peas, corn.

Of others, the fruit; as peppers, melons, tomatoes.

#### THE EARLIEST VEGETABLES TO PLANT

The following vegetable seeds are not very delicate, and can stand a good deal of frost.

Plant as soon as the ground is warm, about the first of April.

##### Peas

Plant seeds 2 inches apart, 2 inches deep, 1½ feet between rows.

The new early "Laetonia" peas are to be recommended, because it is not necessary to use brush for them to climb upon. Buy one pint. Sow peas every week for a month to have them ripen from time to time ("successively").



*Lettuce*

Plant seeds  $\frac{1}{2}$  inch deep, broadcast, or 3 inches apart, in rows 1 foot apart.

"All Heart" is very delicious. Remember that lettuce will be much more tender and crisp if grown very quickly in beds rich in manure. Over it, a shade frame should be used in mid-summer and hot weather.

In transplanting to rows from the hotbed, put plants 6 inches apart.

Cos, or Romaine, or Celery Lettuce is very easily grown. The heavy ribs of the leaves are crisp and good. It grows quite well in hot weather.

*Onions*

Cover the onion with soil. Leave 2 inches between onions; 6 inches between rows.

Buy yellow onion sets—one pint. It takes two years to raise onions from seeds. When ready to pull, take every other one or so, leaving the smallest to grow larger.

*Radishes*

$\frac{1}{2}$  inch deep, about 2 inches apart. Rows 1 foot apart, or broadcast.

The best are the little red globe shape. Sow some in early Spring in hotbed. Sow every week to have "successive" crops. They will be ready in about four weeks. Radishes like a sprinkling of lime in the soil.

*Beets*

Seeds 1 inch deep, 2 inches apart, in rows 1 foot apart.

Buy five-cent package of Crosby's "Egyptian." Seeds may be sowed thick, for not all germinate. Thin the rows by pulling the weakest plants. The young leaves may be cooked as "greens." Never cut the tops off of beets when cooking. Cut off only the leaves. Beets may be sowed again in June for a late crop.



THE SECOND EARLY VEGETABLES TO PLANT

(About ten days after the first)

*Carrots*

Sow  $\frac{1}{2}$  inch deep, 3 inches apart, in rows  $1\frac{1}{2}$  feet apart.

Buy one package "Sutton's Red Intermediate." Carrots do not like new rich soil. Radishes may be sowed between the rows; for they will be pulled before the carrots need much room. Sow carrots rather thick, and thin out weak plants.

*Leeks*

Sow seeds 1 inch deep, 2 inches apart, in rows 1 foot apart.

Buy one package "Prizetaker Leeks." Sow in March or April, and when they are about half a foot high, transplant to deep, rich soil, 6 inches apart, in rows 1 foot apart. Plant deep, to "blanch," or whiten the tops. Leeks may be sowed in September and transplanted in the Spring.

*Parsley*

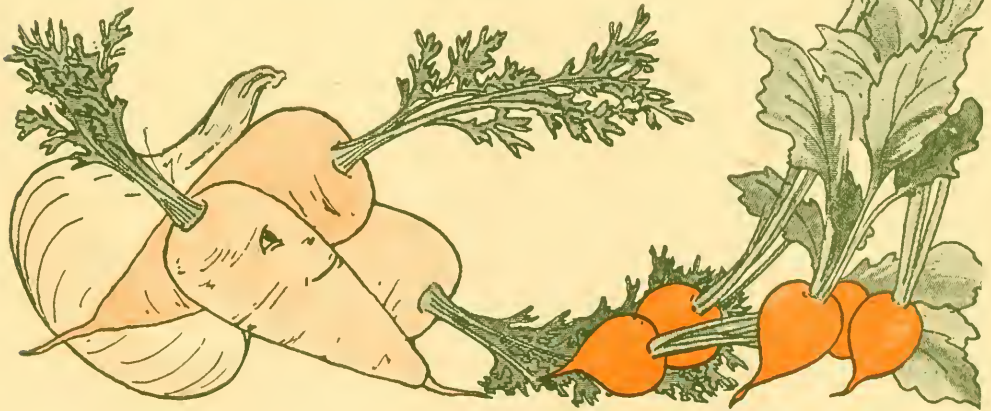
Sow  $\frac{1}{2}$  inch deep, about 4 inches apart, in rows 1 foot apart.

Buy one package "Dwarf Perfection" or "Moss Curly." Soak seed over night in water. Parsley may be broadcast if space is limited. Add an equal quantity of sand to the seeds to help sowing. Throw sand and seeds over the seed bed. Cover by using a toy rake. When 4 inches high, it may be transplanted to rows. "Winters over" in cold frame, and in some localities outdoors, if covered with leaves.

*Thyme and Sweet Basil*

Broadcast.

Buy one package each. Broadcast and rake in the seeds. Sweet Basil grows tall. Thyme only about four inches high.





Peppers

Sow broadcast in March in flats (shallow boxes) in hotbed, or under glass. When 2 or 3 inches high, thin out. When ground is really warm, set out 15 inches apart in rows 2 feet apart. Children will not need more than half a dozen plants of large sweet peppers. Buy "Chinese Giant."

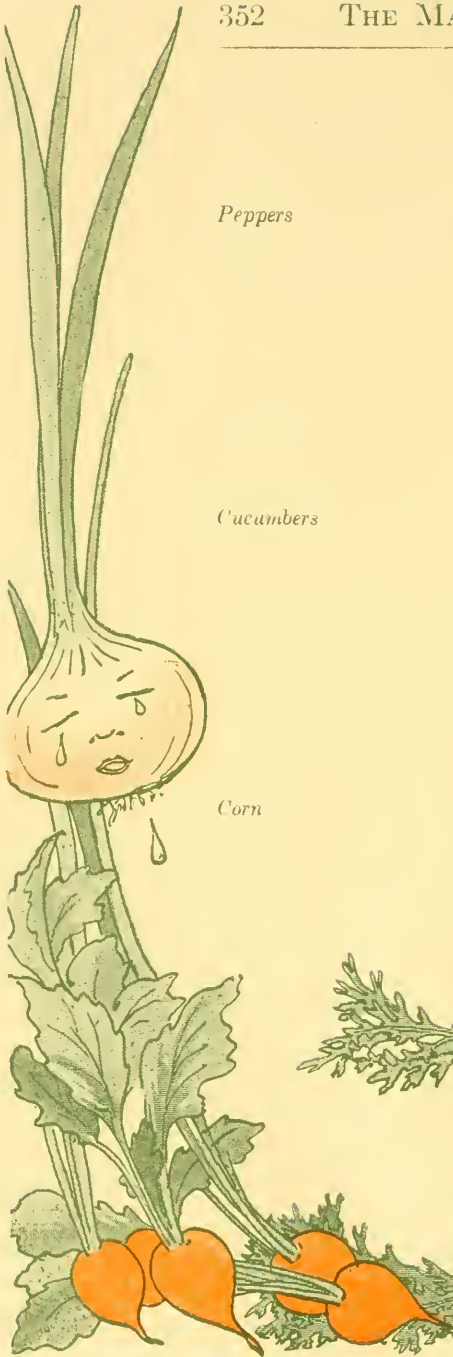
Little red peppers are particularly pretty in the garden, and are useful for flavoring soup—use only a half or a quarter of one, though. Buy "Small Chili" or "Red Cherry."

Cucumbers

Sow about a dozen seeds in late March or early April in strawberry box filled with rich soil, and place under glass. Some warm day in May, make a hill about eight inches high, and after tearing off the bottom of the box, plant it in the hill. After a few days, thin out the weakest plants, leaving three or four standing. Two or three moth balls in the ground, when the leaves come through, will keep bugs away.

Corn

Sugar Corn takes up so much room in the garden that only a very few hills should be planted by a child. When the weather is very warm, make little hills 3 feet apart. Drop 6 corn kernels a little distance apart into the hole. Cover with about an inch of soil. Shallow cultivation helps. Buy one package "Stabler's Early" for early corn; one package "Stowell's Evergreen" for later crops.



*Beans*

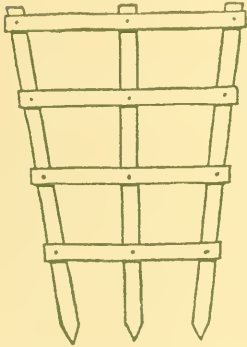
2 inches deep, 6 inches apart, in rows 18 inches apart

*Lima Beans.* Buy "Bush Limas," because it will not be necessary to set poles for them to climb upon. Wood ashes mixed with the soil helps them grow. They do not like damp, heavy soil. Do not plant before warm weather, because beans are tender. Plant in warm weather, edge-wise, with the "eye" down.

*String Beans.* Buy "Stringless Green Pod." Plant every week after all danger of frost is past, 2 inches deep, 6 inches apart, in rows 18 inches or 2 feet apart.

*Tomatoes*

Plants, 2 feet apart, in rows 3 feet apart

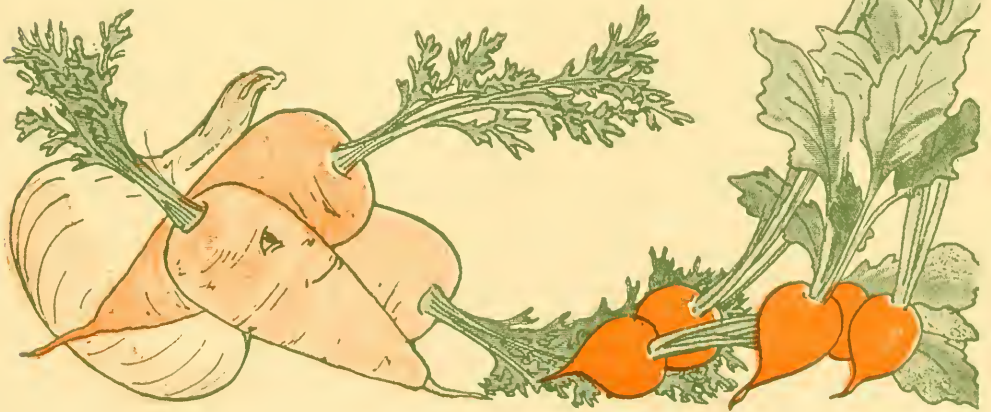


TOMATO TRELLIS OR SUPPORT

It is best for the small gardener to buy the plants and set them out in rows when the weather is really warm. "Earliana" is the best early variety.

"Ponderosa" is the best later variety. If you sow seeds, start them under glass in March or even earlier. When plants are about 3 inches high, transplant to strawberry boxes. Break bottom of box and transplant box into the open ground when it is really warm. Tomatoes need supports to rest or climb upon. The simplest support is a stake driven down near them, to which the stems are tied as they grow. Stakes driven at intervals with heavy cords running from one to the other make another good support; but the best is a slat frame.

If grown from seeds, they will not be ready for about 18 weeks.



Potatoes

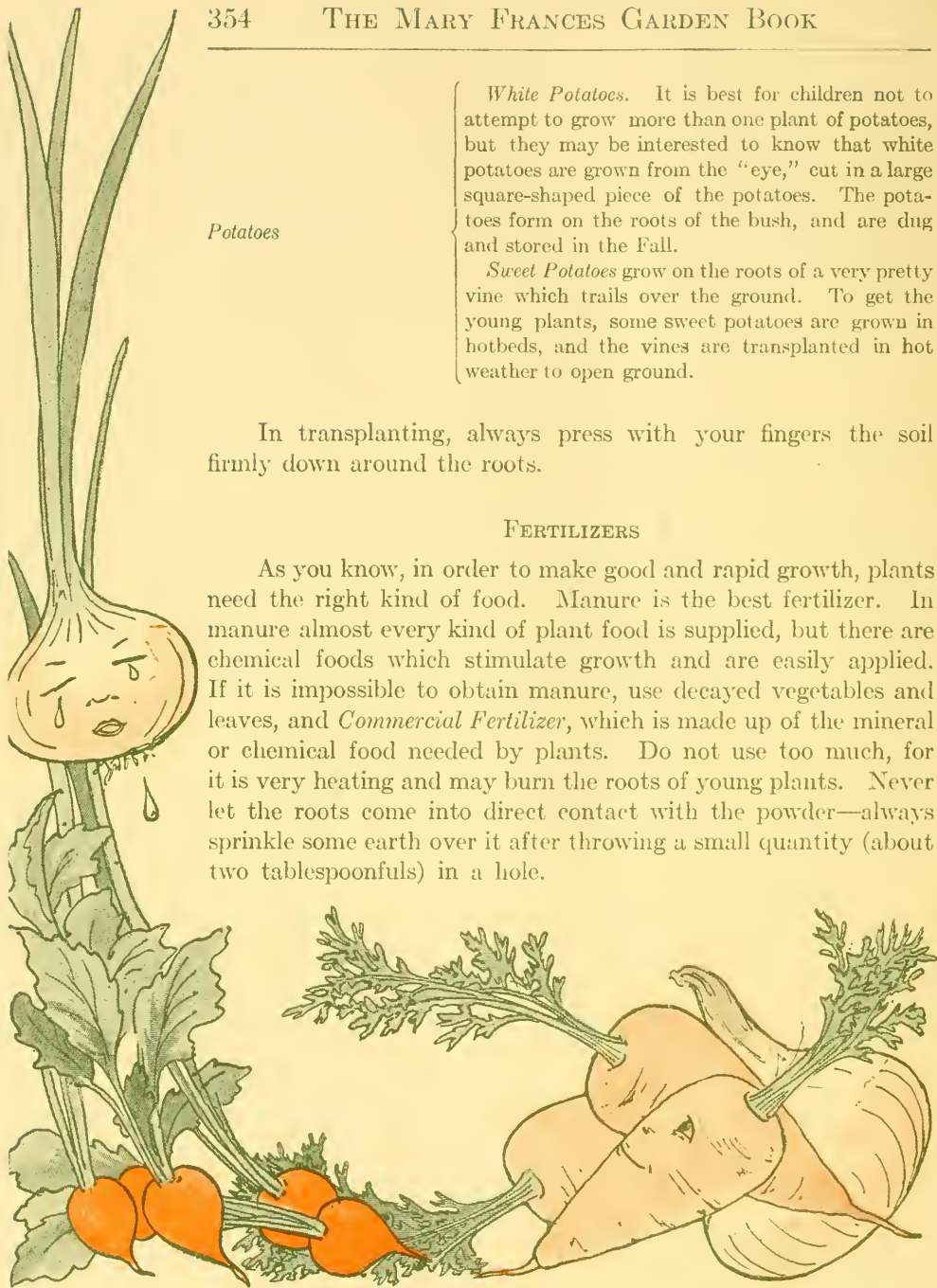
*White Potatoes.* It is best for children not to attempt to grow more than one plant of potatoes, but they may be interested to know that white potatoes are grown from the "eye," cut in a large square-shaped piece of the potatoes. The potatoes form on the roots of the bush, and are dug and stored in the Fall.

*Sweet Potatoes* grow on the roots of a very pretty vine which trails over the ground. To get the young plants, some sweet potatoes are grown in hotbeds, and the vines are transplanted in hot weather to open ground.

In transplanting, always press with your fingers the soil firmly down around the roots.

#### FERTILIZERS

As you know, in order to make good and rapid growth, plants need the right kind of food. Manure is the best fertilizer. In manure almost every kind of plant food is supplied, but there are chemical foods which stimulate growth and are easily applied. If it is impossible to obtain manure, use decayed vegetables and leaves, and *Commercial Fertilizer*, which is made up of the mineral or chemical food needed by plants. Do not use too much, for it is very heating and may burn the roots of young plants. Never let the roots come into direct contact with the powder—always sprinkle some earth over it after throwing a small quantity (about two tablespoons) in a hole.



*Bone meal* or *Ground Bone* is another excellent food. If sprinkled on the ground and dug in around the roots of roses, it will give them a good food supply.

*Nitrate of Soda* is a very stimulating food for *vegetables*. Use 1 tablespoonful in 4 quarts of water in the sprinkler. Do not use until the plants are at least 3 inches high, and only once in two weeks. Sprinkle ground near roots—do not sprinkle leaves.

*Cow Manure* and *Sheep Manure* may be purchased in powdered form for use in a small garden, and in this form are most easily managed by little folks.

Powdered *Sheep Manure* dug in around the roots of roses once a month assures a wealth of bloom.

### INSECTICIDES

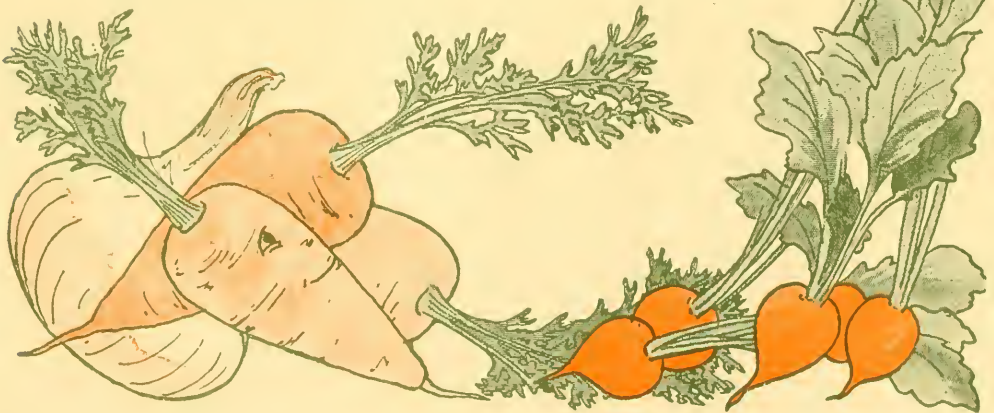
All plants will be attacked by insects.

One of the best insecticides for children to use, because it is not poisonous to human beings, is *Slug Shot*, a patent preparation, which will kill worms and many other biting insects. It is inexpensive and need be dusted but lightly on foliage which is bitten.

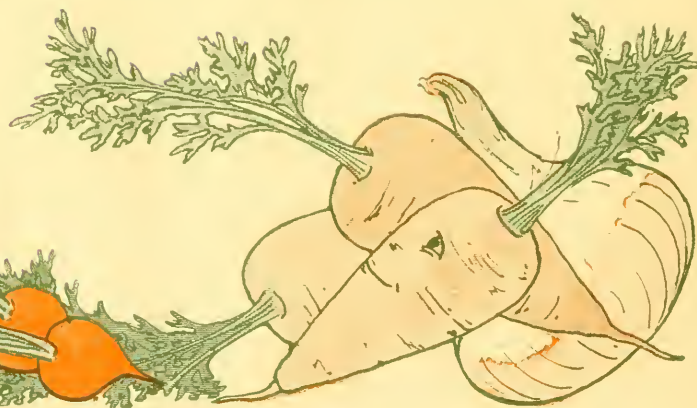
Tobacco tea made by throwing boiling water over tobacco stems, and letting it cool, is used for aphides (*Plant lice*).

For other insecticides, see Chapter XXIX.

In the following blank pages, write down your own experience in gardening; for example,



NAME.	DATES.	REMARKS.
<p><i>Sweet Peas.</i> (Improved Early Spencer.) Pink, lavender, white.</p>	<p>Plant in the <i>Autumn</i>, or early <i>Spring</i>.</p>	<p>Plant in deep drills, in rich earth. Give them a wire frame to climb upon. Never water at night, as the damp- ness causes them to mildew. Pick blossoms daily.</p>



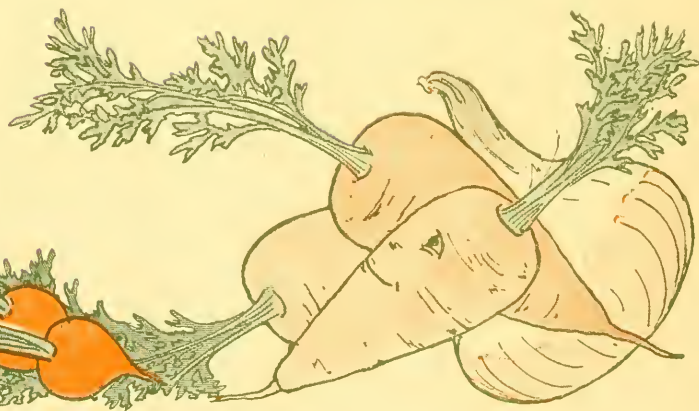
NAME.	DATES.	REMARKS.



NAME.

DATES.

REMARKS.



NAME.	DATES.	REMARKS.





## CHAPTER LIX

### THE CITY GARDEN

**C**HILDREN who live in the city usually have so little ground that they are not often encouraged to attempt gardening.

Even in the tiny 9 x 12 foot city yard, provided it has sunshine during some part of the day, a surprising variety of plants may be grown.

In the new style of building, happily the old-fashioned boarded-up fence is disappearing, being replaced by iron fencing, which gives an open appearance and admits air to the rear of the dwelling; but if one lives where the garden is "walled in," a great deal of pleasure may be gained from—

#### HANGING GARDENS

Along the sunniest wall of the garden, hang boxes on iron brackets as shown in the picture on this page.

The lower garden should be placed high enough to let the sunlight into the small hotbed which is placed on the ground.

In the upper garden, annual flowers and vines may be grown. In the lower garden, plan to have—

[360]



## A SOUP AND SAUCE GARDEN

containing mint, parsley, chives, onions, little red peppers.

In the ground near the hotbed, you may grow tomatoes, carrots, and—

*Okra or Gumbo*

Plant seeds in May. You will probably need only two plants, one foot apart. Use the pods while young. "White Velvet" is a good variety. The plants grow three feet tall. In chicken or tomato soup the beautiful green odd-shaped slices give a richness of flavor.

In using fresh thyme in soup, add it a few moments before serving instead of cooking it from the first, and notice the improvement of flavor.

In the hotbed garden you may have radishes and lettuce at the time they come with their tempting freshness and their high prices in the Spring markets.

In the city, many flowering plants are grown in sunny windows. The following named will be found among the best for the—

## INDOOR GARDEN

Hyacinths	Bermuda Buttercup	Oxalis
Chinese Lilies	English Ivy	
Tulips	Impatiens	Sultana
Tuberous-rooted Begonias	Spirea	
Ferns	Geraniums	



*Bermuda Buttercup Oxalis* blooms all winter in clusters of golden yellow flowers. The foliage is beautiful, resembling that of clover.

*Grand Duchess Oxalis*, in pink, is another charming house plant. It comes in white and lavender also.

The other types of *Oxalis* are pretty in hanging baskets.

The bulbs of *Oxalis* cost from three to five cents each. Plant six in a pot, and be certain to give them good soil, partly leaf loam. Keep them in a dark, cool place for a short time. Water them as they dry out. Bring to the light gradually. They will sometimes bloom in six weeks. *Oxalis*, already started, may be had of a florist.

Another pretty house plant is a vine grown from a sweet potato placed in a hyacinth glass or bottle of water.

For the dining table center piece, the next time you have grapefruit for breakfast, save the seeds, and plant them quite thick, about one-half inch deep, in a shallow earthen flower pot. Keep well watered. It may take six weeks for the leaves to peep through, but they make a beautiful green decoration for the house in winter.

SWEET POTATO VINE



Do not forget your strawflowers which you dried in the Summer. They look pretty with the Japanese air plant, which stays green so long without water.

#### WATERING HOUSE PLANTS

Immerse the pot in a bucket of water, and leave it until it stops bubbling. This done twice a week is far better than daily sprinkling. Neither is it good to keep water in a saucer under a plant; the roots do not like a constant soaking. Wash the leaves from time to time, and when the weather is warm enough, give them some fresh air.

Tobacco dust will keep away green lice (aphides); so, also, will Persian insect powder. Blow either on with little bellows, or "air guns."

There is a plant food for house plants which is sold by dealers. One teaspoonful dug into the earth once in two weeks is very beneficial to their growth.



## CHAPTER LX

### GARDEN COLOR-PICTURES

**M**OTHER NATURE never makes a mistake if left to her own choice of colors.

Indeed, she is a real color artist. What could be lovelier than the purple of the New England aster, near the lavender of the Joe Pye weed, with an interlacing of wild carrot and yarrow; then, not too near, the dangling orange jewel weed, and a little farther away, the brown cat-tail—all set in a green frame, in the soft light of the dove blue of the sky?

That is just one of Mother Nature's color-pictures. If you watch her many pictures, you will learn that—

Flowers in masses are more beautiful than in design.

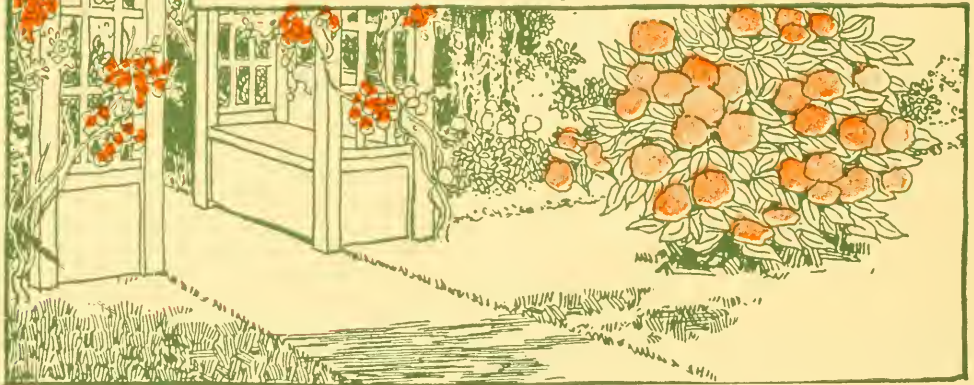
That many white flowers are needed to divide the severe contrast of colors.

That

Yellow combines well with

purple and lavender  
blue  
scarlet  
browns

[364]



but that yellow does not combine well with crimson or magenta.

Blue combines well with { yellow  
crimson, magenta  
pink

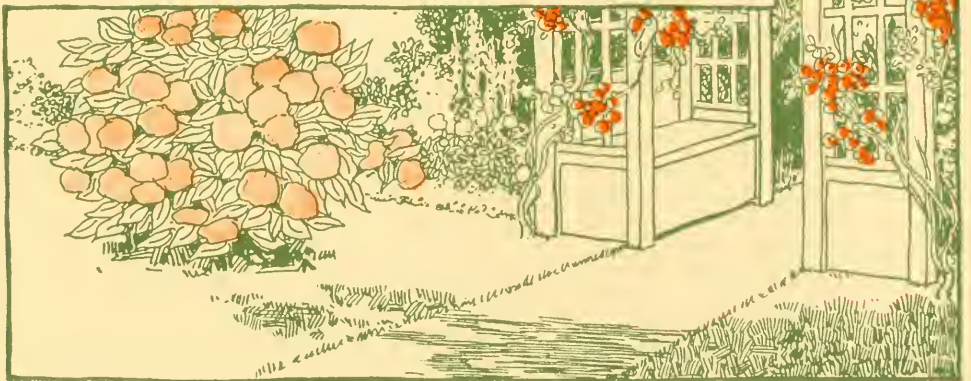
Light pink and yellow are good together, depending upon the shades.

It is difficult to describe the beauty of Mary Frances' garden. Peeping over the green velvet of the lawn is a border of low-growing white flowers which look like ribbons of snow. They are sweet alyssum—"Little Gem."

Just back of them come pink Baby Rambler roses; next, a large mass of charming blue-lavender eupatorium; and "locking arms" with the eupatorium, on the other side, is a rudbeckia, a bush bearing little "brown-eyed" flowers.

Between the pink of the Baby Rambler and the blue of the eupatorium is a bush of feverfew; and between the blue of the eupatorium and the yellow of the rudbeckia is the white of achillea.

Mary Frances says that she thinks that these



flowers form the most perfect color-picture in her garden.

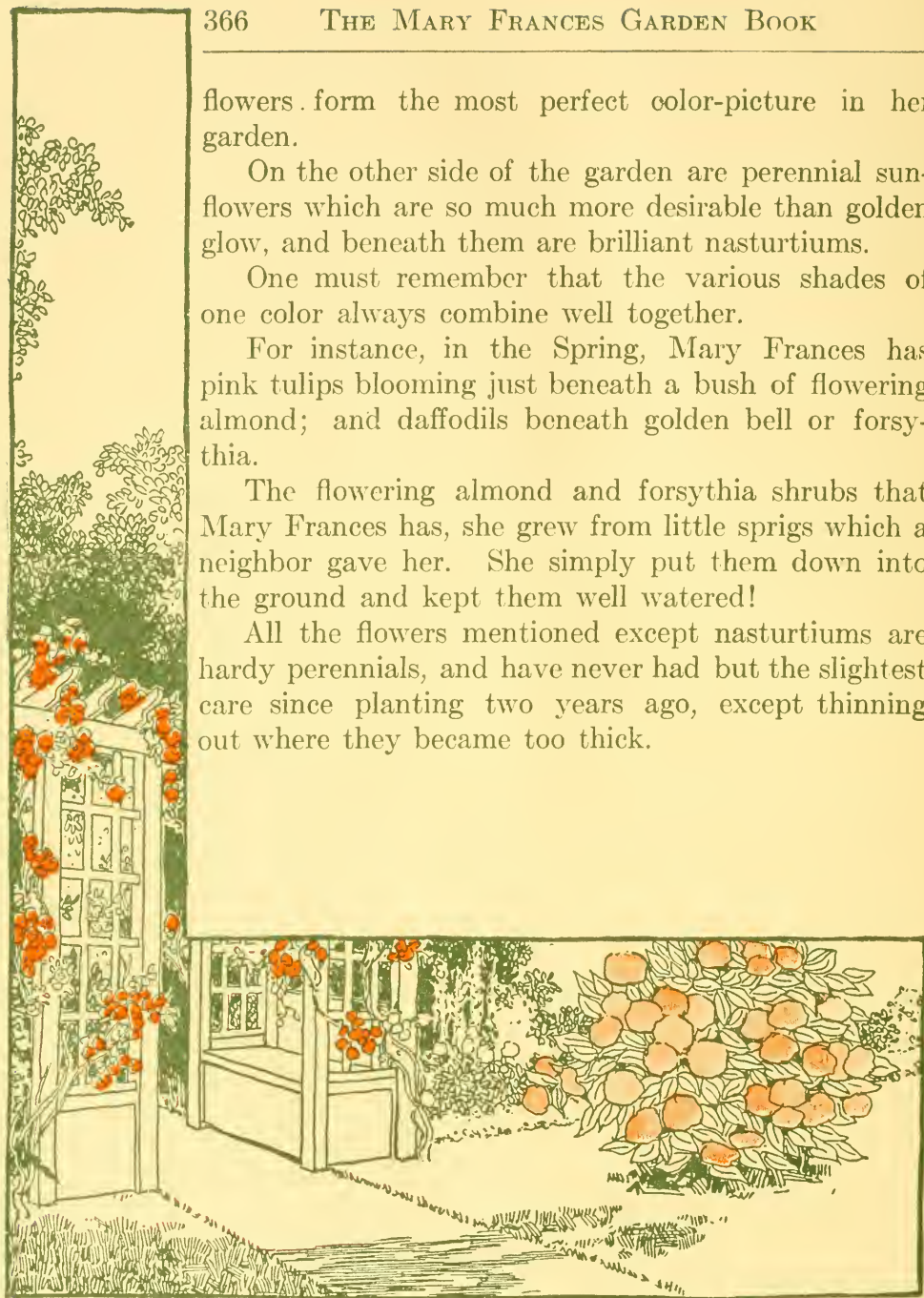
On the other side of the garden are perennial sunflowers which are so much more desirable than golden glow, and beneath them are brilliant nasturtiums.

One must remember that the various shades of one color always combine well together.

For instance, in the Spring, Mary Frances has pink tulips blooming just beneath a bush of flowering almond; and daffodils beneath golden bell or forsythia.

The flowering almond and forsythia shrubs that Mary Frances has, she grew from little sprigs which a neighbor gave her. She simply put them down into the ground and kept them well watered!

All the flowers mentioned except nasturtiums are hardy perennials, and have never had but the slightest care since planting two years ago, except thinning out where they became too thick.



## CHAPTER LXI

### PATTERNS FOR PAPER FLOWERS

**D**EAR GIRLS AND BOYS:

Don't you want to make a flower, now that you begin to know how wonderful they are?

#### TO MAKE A WILD ROSE

Materials required:

Pink, green, yellow tissue paper; white tracing paper; very fine wire; heavy wire for stem; yellow beads; small piece bees-wax; pair small pincers; scissors; glue.

1. To make the *corolla*,—

(a) Lay a piece of pink tissue paper over the pattern of the *corolla* shown in the picture on the next page.

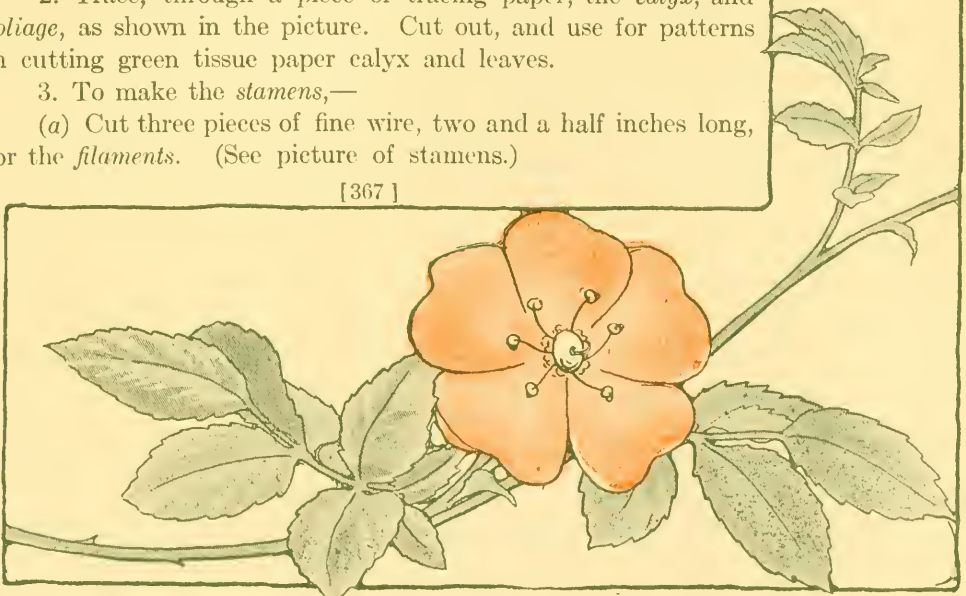
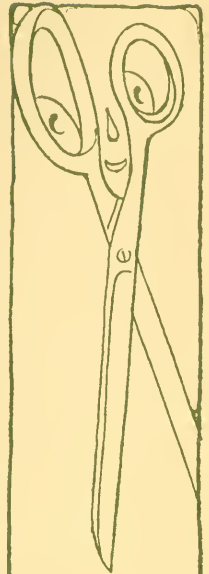
(b) Cut out; and curl the tips of the petals, by drawing them through between the thumb and blade of the scissors, just as your mother does ostrich feathers.

2. Trace, through a piece of tracing paper, the *calyx*, and *foliage*, as shown in the picture. Cut out, and use for patterns in cutting green tissue paper calyx and leaves.

3. To make the *stamens*,—

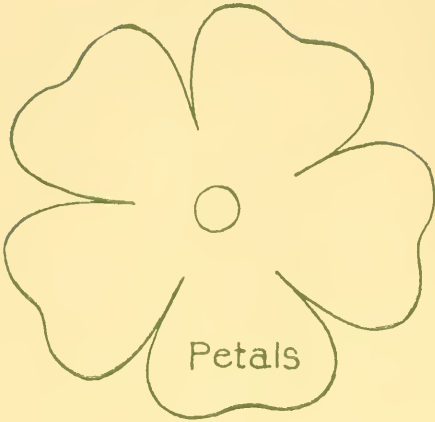
(a) Cut three pieces of fine wire, two and a half inches long, for the *filaments*. (See picture of *stamens*.)

[367]

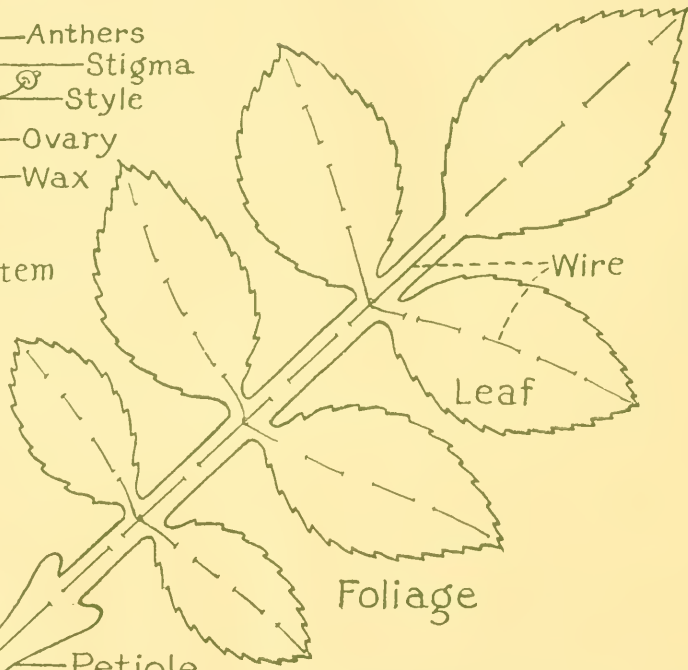
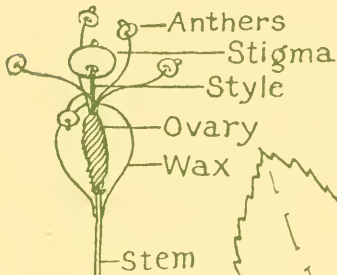
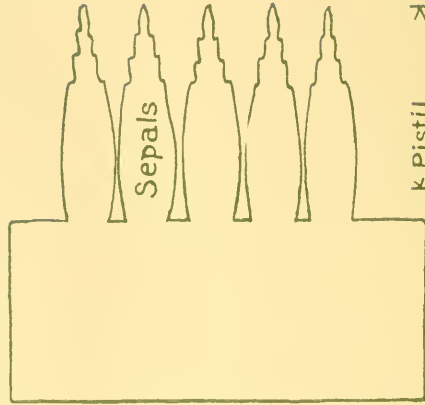




Corolla



Calyx

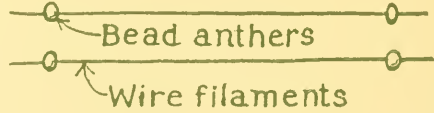


6 Inches

Stem

Stamen

2 1/2 Inches



K

K

K

(368)

HOW TO MAKE A WILD ROSE

(b) Fasten a small yellow bead *anther* on each end of the wire *filaments*, by bending the end of the wire over the bead with pincers. Fold the filament wires in half.

4. To make the *pistil* and *stem*,—

(a) Cut a piece of heavy wire six inches long—to form the *stem*.

(b) On one end, fasten a large yellow bead to form the *stigma*. Cut a piece of fine wire eight inches long. One inch below the *stigma* bead, hold the folded *filament* wires in a little bundle around the stem wire, and wind with the fine eight inch wire—to form the *ovary*. The heavy wire between the *stigma* and the *ovary* represents the *style*.

5. Cut a piece of beeswax a little less than a half-inch square. Mould it with the fingers under hot water until you have a soft ball.

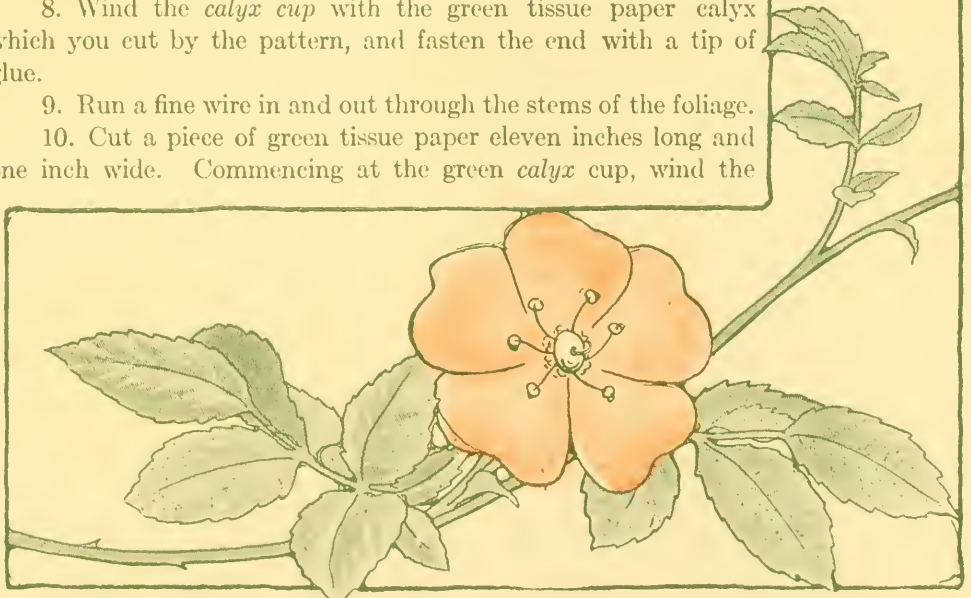
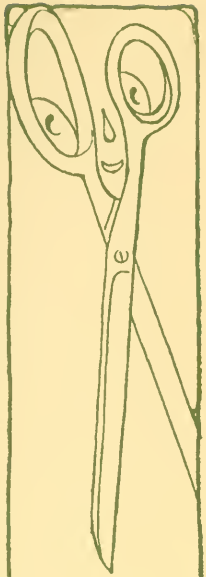
6. Slip the pink *corolla* up the wire stem until over the wound wire. Spread the *stamens* out to prevent the corolla from slipping off.

7. Fit the beeswax over the wound wire to form the *calyx* cup; and pack a tiny bit of yellow tissue paper into the opening of the corolla *under the stamens*.

8. Wind the *calyx* cup with the green tissue paper calyx which you cut by the pattern, and fasten the end with a tip of glue.

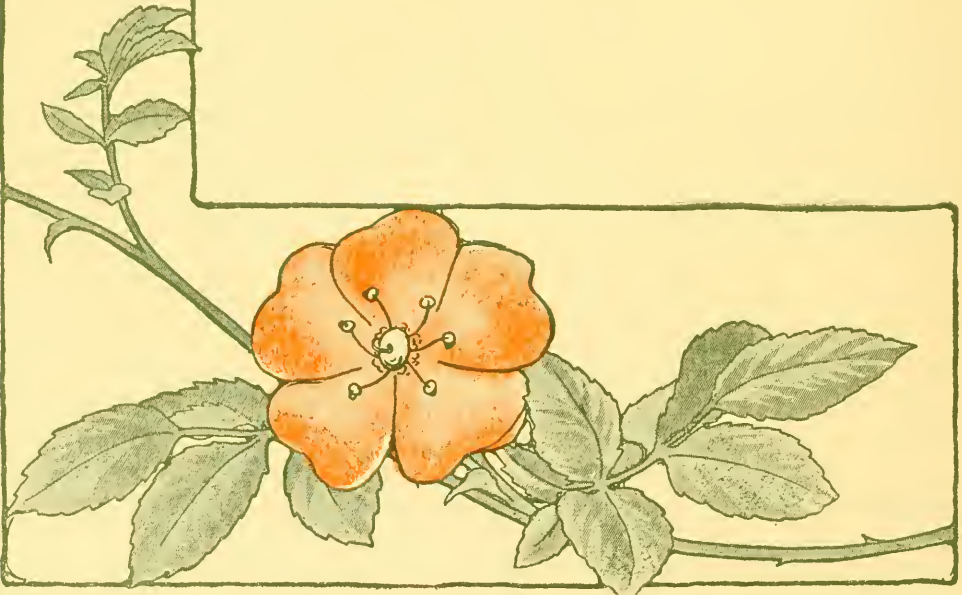
9. Run a fine wire in and out through the stems of the foliage.

10. Cut a piece of green tissue paper eleven inches long and one inch wide. Commencing at the green *calyx* cup, wind the



stem of the rose with this green strip of paper. Half way down, insert the *petiole* of the foliage, or leaves, under the strip, and continue winding to the end of the stem. Fasten the end by winding with fine wire.

There! you have the flower, and you know the names of the parts as well as Billy and Mary Frances know them.



## CHAPTER LXII

### THE MARY FRANCES GARDEN CUT-OUTS

**E**VERY boy or girl who will carefully make up the Mary Frances Garden Cut-Outs, and will study the lists of flowers printed on the reverse side of each garden, will very soon become familiar with the name, season of bloom, and appearance of the best-known perennials. Notice the artistic effect of "massing," or grouping the same kind of plants close together.

In order to recognize the flowers mentioned in the lists, turn to Chapters VII, VIII, IX, and X, to read descriptions.

#### DIRECTIONS FOR MAKING

##### THE MARY FRANCES GARDEN CUT-OUTS

1. Turn to the picture of Mary Frances' Play House before the Children Planted the Gardens.

Cut along the red lines A, B, C, on the edge of the picture; and D in center of grass plot.

2. Turn to Mary Frances' Garden Cut-Out No. 1—Early Spring Hardy Garden.

[371]



Detach or cut out the page.

Cut along the edges of each colored portion.

3. Insert the little flaps A, B, C, D, of the cut-out portions into the openings A, B, C, D.

4. Follow the same directions in

Garden No. 2—Early Summer Hardy Garden.

Garden No. 3—Mid-Summer Hardy Garden.

Garden No. 4—Late Summer or Early Fall Hardy Garden.

You will be delighted with the fairy-like way in which you have changed the landscape in front of the picture of Mary Frances' Play House; but the pictures give only a slight idea of the beauty of the real gardens which Billy and Mary Frances made. In order to see how beautiful the flowers are, you will have to plant your own real gardens.

May they give you as much pleasure as they did Billy and Mary Frances.



## CHAPTER LXIII

### LITTLE GARDENERS' CALENDAR

**T**HE following plan was given to Mary Frances and Eleanor by the boys.  
They called it—

#### THE LITTLE GARDENERS' CALENDAR

In *Mid-Winter* or *January*, plan out your garden, drawing a map and filling in space.

---

A little later, in *February*, get the hotbed ready, and spray roses with Bordeaux Arsenate of Lead, remembering it is a violent poison. Use one tablespoon to a quart of water. This will help prevent mildews and fungi.

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In *March*, or even in *February*, study seed catalogue and order seeds.

Plant some seeds in the hotbed.

Prepare some of the out-door seed beds by spading and manuring.

[373]



In *April*, transplant hardier plants to cold frame, or open ground.

Spray everything again.

If weather is warm enough, sow seeds out of doors.

In *May*, sow seeds of some annuals and vegetables out-of-doors.

Look out for weeds: kill them while young.

In *June*, plant seeds and seedlings in open ground.

In *July*, plant late seeds; carrots, turnips, etc.

In *August*, start perennials for next year. Weed!

In *September*, order bulbs needed.

Move flowering plants which are not in right place.

In *October*, save seeds of annual flowers, labeling each envelope carefully.

Set out bulbs, unless you live below or near the Mason and Dixon line; *November* is a better time in that case.



In *November*, rake up leaves and make into compost heap. Throw a little lime among them. Never burn them. They make humus.

Take up summer bulbs and store them carefully.

Spread manure over the ground to be spaded in the Spring.

Hill earth about six inches high over rose bush roots.

Spread litter and leaves over bulbs and perennials to protect them during winter.

In *December*, trim dead wood from rose bushes.

Destroy nests of cocoons, burning them, and read the MARY FRANCES GARDEN BOOK.





## CHAPTER LXIV

### BUDDING AND GRAFTING

**T**O most boys and girls, the marvelous method of getting new varieties of fruit is a matter of great interest.

In budding, as you know, a bud is set under the bark of a growing plant.

In grafting, the top of the plant is cut off and a branch of another plant is inserted. These branches are usually cut in the Autumn and kept in sand all winter.

In the Spring, the tree to be grafted is cut and the branch (or, scion) is inserted, as shown in the accompanying drawing, and held in place by raffia and grafting wax.



GRAFTING

It was not until the boys' second winter at the garden school that they experimented with grafting peach trees and budding rose bushes, and it was a year later before they knew the result of their work.

If you are particularly interested in the subject, send to the United States Department of Agriculture for Bulletin No. 157, on "The Propagation of Plants."

[376]



## CHAPTER LXV

### PRIZES AT THE COUNTY FAIR

“REMEMBER in all gardening, that experience is your best teacher. Do not become discouraged if you fail. Do not undertake too much. Remember that most people fail to get good plants because they do not prepare deep good beds, and do not ‘cultivate,’ or stir the ground. Watering is nothing like so necessary.”

This is what Mary Frances was telling a number of children in the garden one day as Billy came upon her unawares.

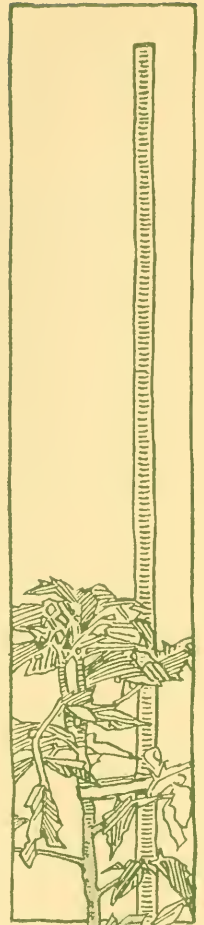
“You couldn’t have better advice, children,” he said.

“Than Billy gave me,” Mary Frances added. “He taught two friends and me so well, that next year we are each to have our own garden plot, and ‘race’ with Billy to see who can raise the finest vegetables.”

“Some of the very finest are to be sent to the County Fair,” stated Billy.

“And they’ll be ‘winners,’ you may be sure,” Bob prophesied as he and Eleanor joined the group.

[377]



"So will some of our flowers, won't they, Nell?"

Before Eleanor could answer Mary Frances, there sounded the joyous shrill crow of Feather Flop.

"I'm sure they will!" it meant to the little girl, but none of the others seemed to hear the rooster.

Perhaps he did know—for one year from that day, each of the children received some premiums at the County Fair; but, to Mary Frances' surprise, she had three more than Eleanor; two more than Bob, and one more than Billy!

"I wonder why your garden did better than all the rest," said Bob. "You didn't seem to work any harder than we did."

"Oh, it was just a 'happen so,'" answered Mary Frances, but she remembered that many a morning she had seen prints of the claws of Feather Flop in her garden, and a little pile of weeds at

THE END

