

Nature and Science Reader Book 5

Science at Home



Edith Patch & Harrison E. Howe

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Science at Home

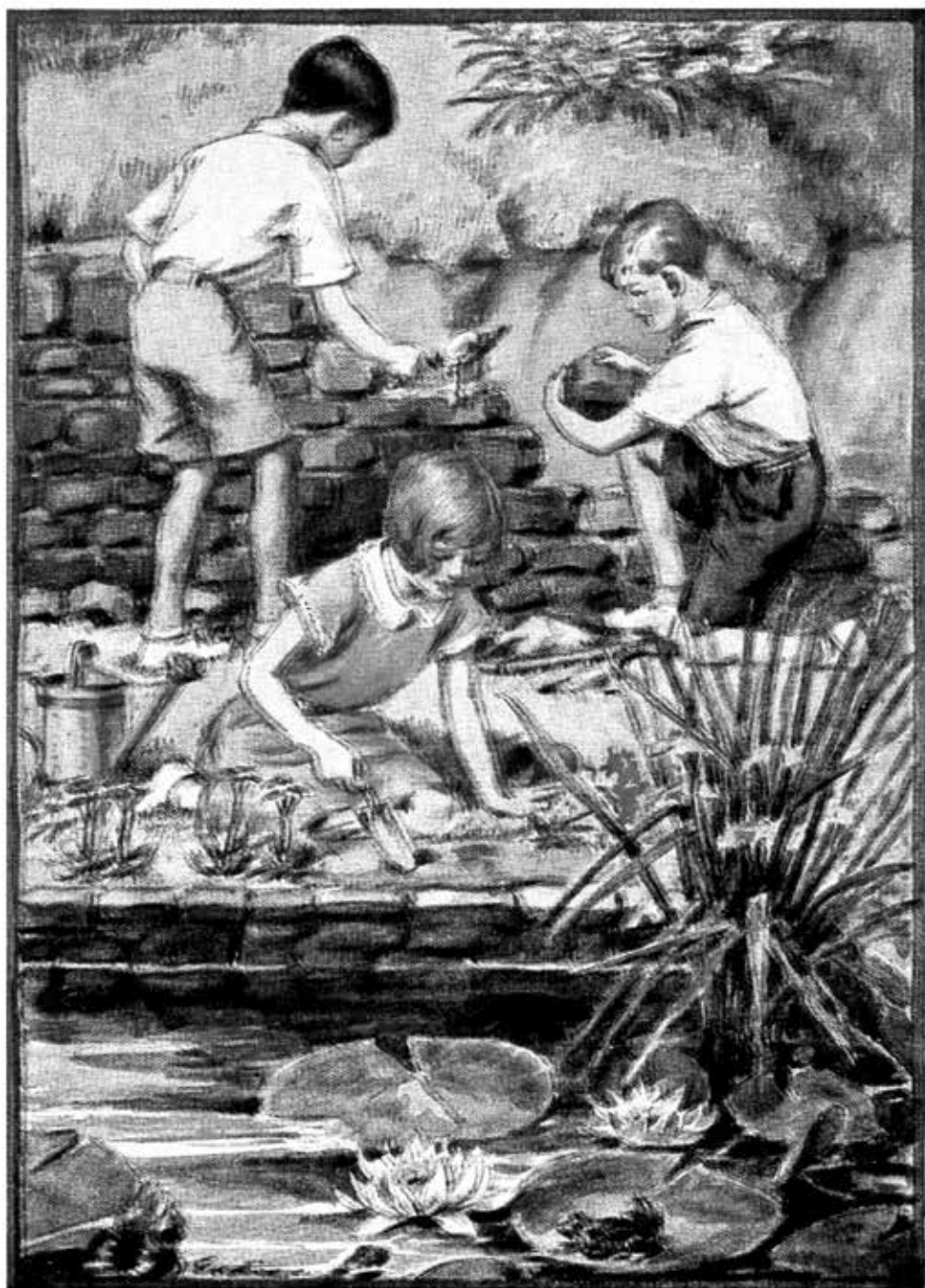
by

Edith Patch & Harrison Howe



Contents

1.	FLOWER GARDENS	3
2.	HOME SHELTERS	27
3.	WATER—LIGHT—HEAT	87
4.	HOME AS A WORKSHOP	135
5.	MATERIALS FOR CLOTHES	167
6.	FOODS	229



A FEW WORDS ABOUT THIS BOOK

Do you enjoy a visit to a museum? Do you like to learn about the things that are put into glass cases for you to see?

We do not place our most common things in a museum. We do not make exhibits of them. We use them. The things we use every day, however, are quite as interesting as exhibits in museums. You may have noticed how pleasant it is to learn about familiar things. They seem more remarkable if you know facts about them.

Perhaps you have been curious about some of the objects in your own home. You may have wondered what they are made of or where they came from or how they were put together. It is quite likely, indeed, that you have asked more questions about such matters than people have had time to answer. It really takes a great deal of time to answer certain questions.

You may like to see if you find answers to some of your questions in this book. Of course, all the answers will not be on these pages. Any wide-awake boy or girl can ask about more subjects than can be crowded into one book.

Perhaps, however, you can answer some of your own questions. Do you think it would be rather good fun to find out some facts for yourself? There are suggestions in this book that will help you hunt for facts. You will find them on the "Questions and Activities" pages. You may think of other ways to hunt for facts, too.

Homes and objects in homes are in common everyday use. This book tells about such things. So it is called *Science at Home*. You may find that your own home is somewhat like a museum — full of interesting things.

EDITH M. PATCH
HARRISON E. HOWE



FLOWER · GARDENS

DART
ONE



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FOXGLOVES

WILD FLOWERS IN GARDENS

A garden may be a very important part of a home. Perhaps you have met someone who likes his garden even better than his house.

Indeed, a garden may seem like an outdoor living room if it is bordered by a hedge, a fence, or a wall. Such a room is likely to have a carpet of soft grass. It may be furnished with a table, a few chairs, a hammock, and perhaps a swing. It needs no pictures in frames because the garden itself is a picture. Instead of having cut flowers in vases, it is decorated with unpicked blossoms. There is no plastered ceiling — there is the blue sky overhead.

Are you one of the people who like flower gardens? Have you yourself taken care of plants? Is your favorite sort of garden one in which wildflowers have been placed?

It is an interesting game to move a wild violet or another wild plant into your garden. Of course, it is not fair to the plant to do this unless you can keep it in a flourishing condition.

So you will wish to notice the place where it was thriving. Was the ground wet or well-drained? Was the spot shady or sunny? Was the soil clay, sand, or leaf mold? You will study such matters as these if you wish to give your plant a garden home where it can be as healthy as it was before you adopted it.

Children often find great delight in the game of playing with plants in gardens. You may have noticed that grown people enjoy this same game. And you may be interested to learn about some of the plants that men have moved from wild homes into gardens.

Some of these plants have not had long journeys. They may

have been carried from a neighboring meadow or roadside. Others have been fetched from far places of the earth — as from regions along rivers in Africa, from mountains in Asia, or from fields in Europe.

The Purple Foxglove

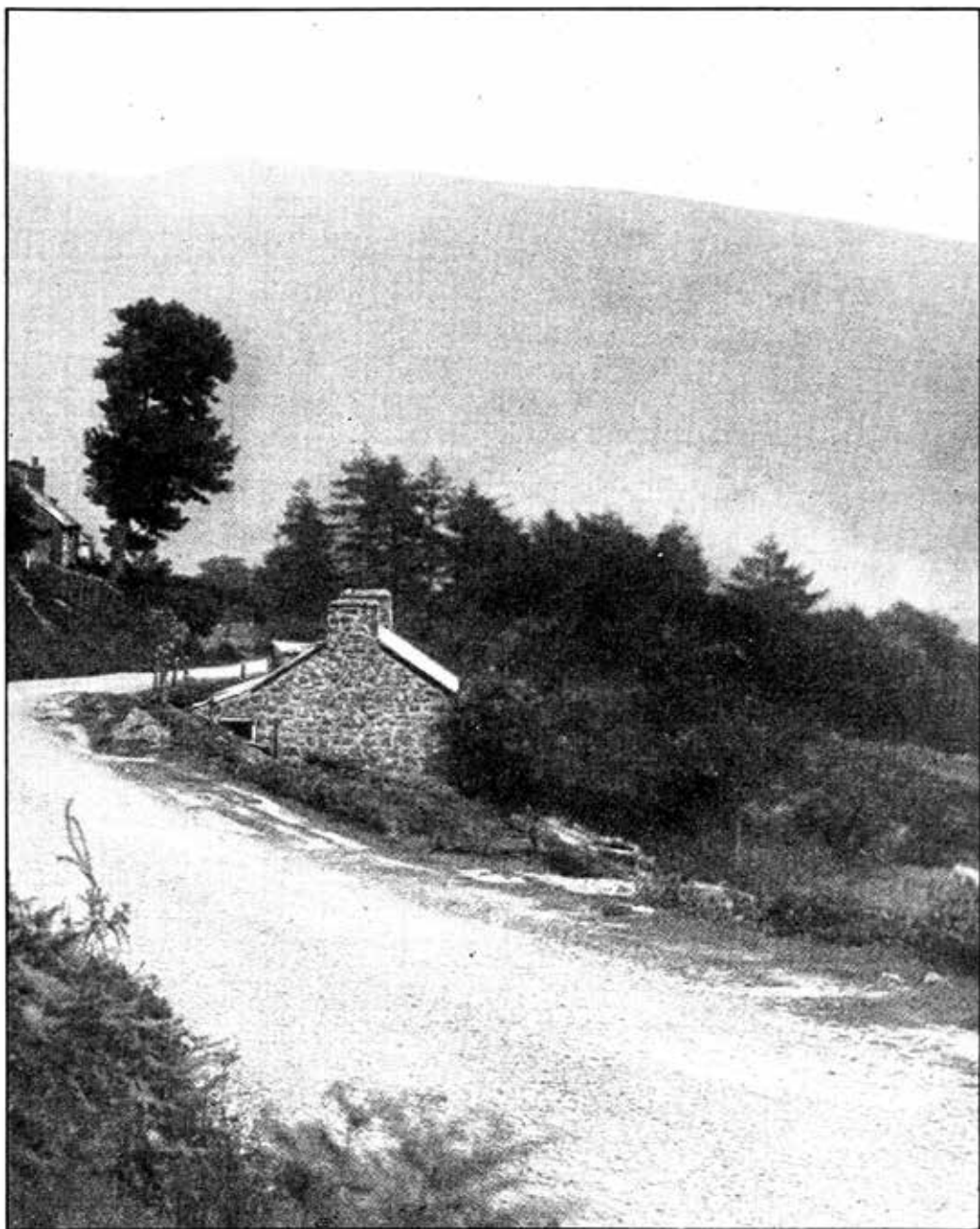
Do you like to learn a few Latin words? *Digitus* is the Latin word that means a finger or a toe. So we sometimes call our fingers and toes *digits*.

You could slip a finger into a foxglove blossom, and it is rather interesting to know that one name for this plant is *Digitalis*.

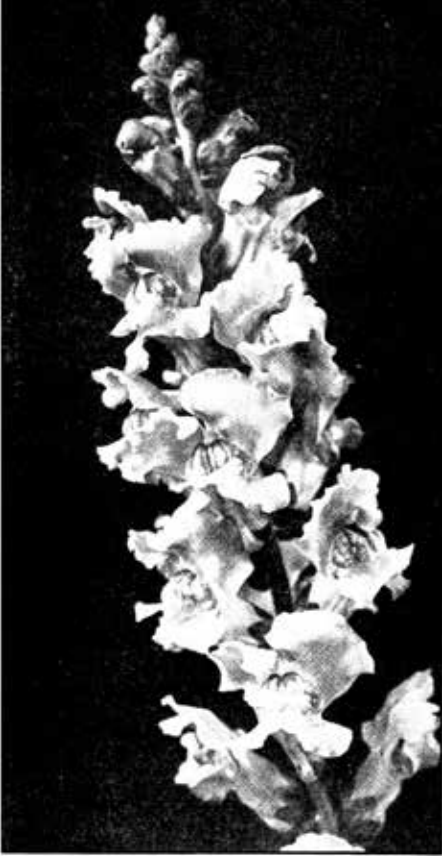
Many foxglove blossoms grow on a single spike, as hollyhocks and larkspurs do. These plants are wild in western and central Europe. They are abundant on rocky hillsides. If you should visit the British Isles some year, we hope you can go to the mountains of north Wales in June. At that time of year, the high slopes there are purple as far as one can see. That is because so many foxgloves are in blossom.

Of course, you need not go so far as north Wales to see purple foxgloves. They grow in many American flower gardens. Perhaps there are some in a garden near your own home. We call them “cultivated” instead of “wild” when they are planted in gardens. But they are the same kind of plant whether they grow on rocky hillsides or in garden borders. Men found them growing wild and liked them so well that they began to put them wherever they wished to see them. They brought some of them across the Atlantic Ocean to America.

The foxglove belongs to the Figwort Family. It is quite likely that you know some other members of this family of plants. We shall mention snapdragons, butter-and-eggs, mullein, and turtleheads — some well-known relatives of the foxgloves.



A HOME OF WILD FOXGLOVES ON MOUNTAIN SIDES IN NORTH WALES



Courtesy "Nature Magazine"

SNAPDRAGONS

Snapdragons

Snapdragons have also been brought to gardens from certain places in Europe where they grow wild. They are frequently grown in greenhouses, too, so that their flowers may be enjoyed during the winter.

Children usually like to play with snapdragons. You may have learned how to make one of these blossoms open its mouth by pressing lightly against its sides with your thumb and finger. Then, when you take away your hand, the "dragon's" mouth shuts with a quick snap.

A bumblebee can open a snapdragon when she desires to reach the nectar that the

blossom holds for her. She has a very clever way of doing this.

Butter-and-Eggs

The blossoms of the plant called butter-and-eggs are shaped very much like those of their relative the snapdragon. Their mouths can be made to open and shut in the same way.

Why do you suppose they were given so queer a name? Perhaps their colors reminded someone of eggs that have been scrambled with butter in a hot pan.

The plant has other odd names and is called yellow toadflax,

brideweed, and impudent lawyer. It has still another name. A Welsh gentleman whose name was Ranstead is said to have introduced this plant in Philadelphia gardens years ago. So, when you learn that one of its various names is Ranstead, you will understand that this is in honor of a man who considered the plant good enough for flower gardens. It may be that you will agree with the Welsh gentleman.

Butter-and-eggs is much more likely to be found listed in a book of weeds than in a seed catalog of a florist, even though it is much prettier than many yellow flowers that are sold for rather high prices.

Originally, butter-and-eggs grew wild in Europe and in parts of Asia. Its seeds often become mixed with the seeds of field plants grown for crops, as are the seeds of many other weeds. In this way, they have been carried from place to place as uninvited guests. They have made themselves at home along gravelly sides of railroad tracks and highways, as well as in other dry, sunny places.

If you like yellow flowers, you may wish to have butter-and-eggs in your own garden. Then you can have a pleasant time watching a bumblebee open the mouth of one of the flowers. The fuzzy insect is heavy enough to cause the mouth to gape open while she rests on the lower lip. She thus has a chance to poke in her head and dip the tip of her long, stiff tongue into the nectar. While she is taking her drink, she becomes dusted with pollen, which she carries to the next flower she enters.

Butter-and-eggs and snapdragons are called “bumblebee flowers” because they depend on these insects to carry their pollen. Bumblebees like to drink from these flowers. They welcome the yellow butter-and-eggs even when people do not.

Mullein

The great mullein, or common mullein as it is also called, is another native of Europe. Its seeds, with those of many other weeds, have been gathered with those of crop plants and thus carried to different countries.

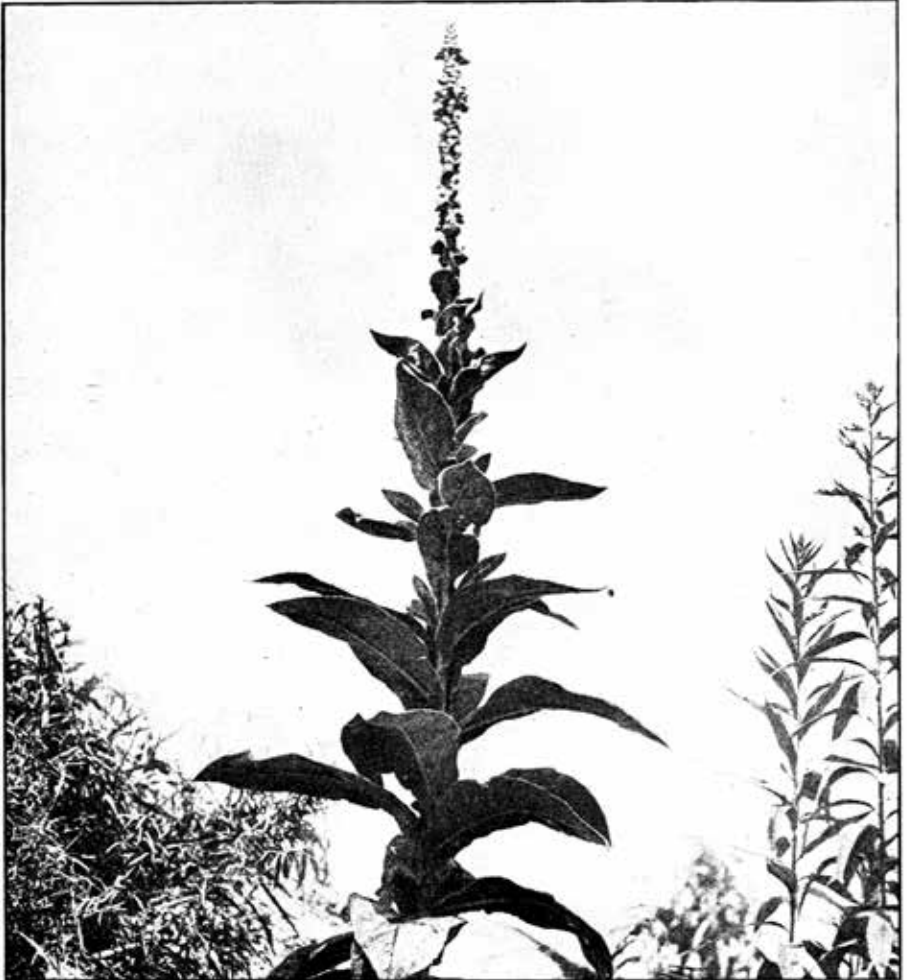
Mullein seeds are fine and light and are blown like dust by the wind. Plants growing from such scattered seeds may now be found along roadsides and in fields all the way from Maine to California. Although it is not a native, mullein has become naturalized in this country and is one of our common plants.

Most people look upon the mullein as a weed, and you may wonder why it is given a place in this chapter. It really has an interesting history as a garden plant.



Photo by Cornelia Clarke

ROSETTE OF COMMON MULLEIN, OR "VELVET PLANT"



A TALL AND STATELY MULLEIN

One day, an American florist looked thoughtfully at a young mullein. The soft, thick leaves of the rosette it forms during its first season seemed attractive to him. He decided that “velvet plant” would be a good name for mullein. So he listed it with his other garden plants and offered it for sale. For some years after that, people in America and Europe, too, purchased “American velvet plants” and gave them honored places in their gardens.

The mullein is indeed interesting, from the months of its

fuzzy, overwintering rosette to the time of its full height the next season. You are likely to see this tall and stately plant growing beside the road when you are riding in the country. Its spike of golden blossoms may make you think of a flaming torch.

You may like to learn that many years ago, the Romans dipped dry mullein stalks in tallow and burned them for torches in their parades.

In ancient times, the Greeks, too, had a use for mulleins. They dried the leaves and placed them in their open oil lamps for wicks.

If you put a mullein into your garden, you may enjoy it more than some of your other plants. Perhaps you will see a hummingbird come to gather fuzz from its leaves to line its dainty nest. Perhaps you will see a flock of twittering goldfinches come to feast on the seeds its seed pods hold. Perhaps — but you will not care to have us tell you too much about the mullein. You will wish to discover for yourself some of its interests.

Turtlehead

We have told you of a few members of the Figwort Family that have been introduced in America from Europe. Now we shall speak of one of their American relatives — the turtlehead, which is also known by the names of snakehead, balmony, and shell flower.

You are likely to meet this plant in such moist places as swamps, ditches, or the borders of streams. You would not be wise to move it into your garden unless you have a good wet place to put it. But you will be interested to visit it in places where it grows naturally. It may be found all the way from New-

foundland on the north to Florida on the south and westward as far as Alabama, Kansas, and Manitoba.

You may like to notice in what ways the white or slightly pinkish turtlehead flowers resemble, in shape, the snapdragons and other figworts we have mentioned.

QUESTIONS AND ACTIVITIES

Have you ever seen a turtlehead? Look for a picture of one in some book of wild flowers. (Then, if it is convenient for you to do so, hunt in a swampy place for some of the plants.)

How does a bumblebee get into the mouth of a turtlehead? Why does the beautiful Baltimore butterfly come to this plant to put her eggs on its leaves? After seeing her come and go, can you guess what caterpillars enjoy a salad of turtlehead leaves?

Make a list of some plants you would like to find growing wild in country places. Make a list of plants you think you might find in a city park. Perhaps you would like to keep these lists until some pleasant summer day when you may have a chance to visit a country field or a city park. Then you can try to find the plants that are named in your lists.

The chapter you have just read is about a few plants belonging to one family. Choose some other plant family. Write a short essay of your own about a few plants belonging to the family you choose. Write your essay about plants of this family that you would like to have in a flower garden. Here are some suggestions:

Rose Family – rose, Japanese quince or fire-bush, bridal wreath, flowering raspberry



Lily Family – day lily, lily of the valley, tiger lily, Turk’s-cap lily

Composite Family – aster, dahlia, daisy, marigold, sunflower

If you choose plants of the Rose Family for your essay, tell how many petals a wild rose blossom has. If you write your essay about plants of the Lily Family, tell how many divisions there are in the funnel-shaped outer part of the flower of a tiger lily. If you do not have a wild rose or a tiger lily to study, find a picture of each in some flower book.

Does the turtlehead grow wild in your state? If you do not know, look at a map to see if the state in which you live lies somewhere between Newfoundland and Florida and not farther west than are Alabama and Kansas.

Read pages 5 to 15 again and make a list of all the plants mentioned that have the names of animals as part of their own fanciful names. *Toadflax*, of course, would be one such name.