

because the towel was full of little pores to draw it up.

"See, Mum, the leaves are full of holes too. Do they draw up water?"

"Well, those holes are of a different kind. They can open and close like little mouths, to let some things out that the plant does not want and to keep in what it does."

Noticing the round eyes of the surprised boys, I rashly offered to make some drawings for them, "some time," to show how the little mouths work, and even to try to get one under Dad's microscope for them to see.

Fortunately Walter brought tubes of several sizes, so we noticed that the finer the tube the higher it drew the water. This being an old story to Walter, he drifted over to tease Mildred, who was putting on her rubber gloves to attend to the potatoes. I heard her attempt at peaceable conversation: "Just look how the potatoes are sprouting already. It's funny turnips never sprout."

Mildred does speak so thoughtlessly. She knew better, in theory, but had had small acquaintance with vegetables in the field.

Her speech met with a derisive hoot from Walter, for which I set him to the task of explaining why the one sprouts and the other does not, while I busied myself with the Little School Mother's pies.

"Aw, anyone knows that's the way a potato grows! That's the way you have to plant 'em. Turnips don't grow that way; they have seeds you plant."

"Don't potatoes have seeds?" queried Mildred, her rather slow curiosity aroused.

"No!" disdainfully.

"Now Walter! That's just as thoughtless as what you hoofed Milly for saying," said the Little School Mother. And Mildred added, "I know potatoes have flowers, because Sir Walter Raleigh used to wear one in his buttonhole."

"Wasn't that a king—?" But I interrupted my sister-in-law with a stare and a laugh.

"Out of the mouths of babes, indeed! I've often heard of seed-potatoes, but never of potato-seeds. What do they look like?" (I told you I had spent most of my life in a city.)

She told us how they developed in little green balls like the tiny tomatoes, their cousins, and that they are not planted because they cannot be depended upon to be true to the parent stock."

"So potatoes have three ways of reproducing themselves!" I exclaimed; "for don't you remember, Walter, that we read in the Digest of their bearing new potatoes if they are kept in the dark under a little earth, with their sprouts all destroyed? We must try that, right away."

Here the Pedagogue came out, probably to discover the fate of his glass tubing.

"Hello, Sis! Learning to cook That affair of yours must be growing serious."

The little chaps were still occupied with the linen-tester and a piece of geranium-stem that I had cut off and had to lay aside.

"Look, Dad! This is the way it draws up the water to grow. See all the little tubes!"

"Yes, but a plant takes up nourishment largely by a process called Osmosis."

"Oh, go along! Don't frighten the children! You need a laboratory to talk in," retorted his sister.

In a wonderfully short time, however, the Pedagogue had us all around him, while he made lengthwise and crosswise sections of the stem, showed the little partitions of tissue through which liquid has to pass, and explained that its doing so depended upon the state of the juices above.

"Now, if I had a piece of chicken's intestine—or let's have an egg, will you, and I'll show these little shavers how it works."

Tying a bit of the egg-membrane closely around the end of a piece of rather large tubing, he put a salt solution inside the tube, and held it in a saucer of water, coloured slightly with jelly-powder. To the boys' delight, the fresh water began to pass through. By changing the relative positions of fresh and salt water, trying both salt and both fresh, we satisfied ourselves that the weaker always passed over to the stronger.

"So, you see, when the juices of the plant, which have different kinds of salt in solution, become too strong or too weak, the earth sends up what is needed, and it has to pass right through the floor, through several 'floors' sometimes."

"Can it go sideways?" This from Don, of course.

"Yes, it can go through the walls as well as the floor. It is by this same means that liquids pass about through the tissues of our bodies; because, you know, our food has to be in solution to pass through the walls of blood-vessels into our blood. It is by the same process that Mildred's potatoes,