

sack sponge, which he was fortunate enough to find, though it is not very common, and then the two returned home with their treasure-trove.

In the afternoon the microscope was got down, and its glasses carefully wiped, so that everything might be seen through them with the utmost clearness.

The specimen of sack sponge when taken out was declared by Archie to remind him of three ivy leaves on a twig, only that the leaves were of a dirty white instead of green colour, and were actually little bags, with a small hole at each point or angle, and he was quite distressed when his father tore one of them open.

"Why didn't you cut it, papa?" he asked. "I could have lent you my knife."

"The sharpest knife or pair of scissors I could have had would have injured the delicate texture of these bags, so that I could not have shown you the signs of life in them," answered his father while carefully arranging the torn edges and bringing a lens of very high power to bear on them.

"Now come and look and tell me what you see," he added.

Archie could hardly believe his eyes, and had considerable difficulty in describing what was before him, but at last he said—

"There are a lot of capital Y's all higgledy-piggledy—I mean things that go three ways, something like the legs on my Manx penny, and at one side the legs aren't so pointed as they are at the other."

"Bravo, Archie!" said papa; "that's a famous account. Now I shall put on a still higher magnifying power, and you must tell me if you can see anything else."

When Archie took his second peep, he not only saw that the capital Y's had increased in size, but that they were surrounded by something that he called *net*, and that there were several long threads which reminded him of the lash of a whip in perpetual motion, as though they were actually whipping some unseen particles.

"Those whips," said papa, "are the cilia, and by the continual lashing or waving movement, when in their natural element, they propel the water through the cells of the sponge, and send it out in streams from the mouths which are at the end of each angle of the bag which you compared to an ivy leaf."

"I suppose, then," said Archie, meditatively, "that that is what shows the sponge to be alive?"

"Exactly so," said the pleased father, with a hand on the curly head, while Archie continued—

"What is the stuff like net?"

"Those are the cells, through which the water is pumped by the cilia in the same way that our blood passes through our veins," was the answer.

"And what are the three-legged spiky things?" asked the child.

"Those are the spicules—the parts that enable a sponge to suck up water into its cells and pores."

Papa next laid a small branch of another sponge—*Spongia coalita*—which a friend had given him, in an old watch-glass full of sea water, and putting it under the microscope told the little boy to watch it, which he did eagerly.

"I can see one little round hole beautifully," he said, "and it *does* send out a lot of water, and tiny bits of something like sand besides. I wonder it doesn't get tired, and how long it means to keep firing away like that?"

"I once watched a similar one for five hours," replied papa, "and the little torrent rolled on just as rapidly all the time, but during the sixth hour became less active, and finally ceased altogether."

"I wish we had some more sponges to look at," said Archie.

"So do I," rejoined his father, "and perhaps we may find some others, for there are more than sixty different species to be collected, and every coast, especially in the warmer parts of the globe, has its own peculiar sponges."

"I should like to see quite a little baby sponge," was Archie's next observation.

"I don't know that I have ever seen one," said papa; "but it can only be an atom."

"How funny!" said Archie. "I should think such tiny things couldn't settle; they must be washed away by the water."

"Ah!" replied his father, "they are provided with a means of taking root, for they are able to attach themselves by a kind of glue to the rock, shell, or weed they choose for their habitation, and when quite established there they absorb their own cilia, and take to growing bigger, till they possess the same structure as their parents."

"I wonder how long my sponge that I wash my face with took to grow, and where it came from?" said the little boy.

"It is a very soft skeleton," was Archie's next remark.

"Indeed it is," answered papa; "but soft as it is, its spicules are all composed of either flint or lime."

"Oh, papa, you are laughing at me! It would scratch me if it were stony."

"I am not laughing, dear, but I don't think I can make you understand any more about sponges at present, as the subject is a very extensive one, about which you may read on some future occasion," said his father, "so run away and see where your sponge is now, and wash a very grubby little face, and hands that I can only consider paws in their present dirty condition."

At our special request, one of our first scientists has undertaken the supervision of this charming Department. A Question Box has been opened, and the Editor has much pleasure in asking the co-operation of parents through this means. Address letters—"Natural History Question Box," YOUNG CANADIAN, Box 1896, Montreal.

(To be Continued.)

A FAMOUS BOY TRAVELLER.

Mr. Ernest Morris, who died in America recently, was quite well known some years ago for his remarkable travels as a boy in South America. He was known as "the boy traveller." While yet in his teens he decided to visit the wilds of the Amazon basin, and when he returned well laden with all sorts of nicely-preserved specimens illustrating different branches of natural history and ethnology, his story was told in all the newspapers as showing what a determined and intelligent lad could do. His experience 1,500 or 2,000 miles up the great valley only whetted his ambition to engage in other adventures in the same region, and in the course of time he made a number of voyages to the Amazon basin. Sometimes he would bury himself for months in the great forests, where he saw no white people, and lived among the savages of those regions, who took a liking to him. Morris knew very well the taste of monkey stew, and, like the natives among whom he wandered, he more than once appeased his hunger with a meal of snake meat, which he declared to be not at all disagreeable. He was evidently able to suppress his imagination, and could eat without a qualm anything that would appease his hunger.