

ABOUT SPIDERS.

The spiders belong to the great family of "Articulata," and in the group are called "Arachnida." I do not know how long ago this name was given to the spiders, but it seems to have come from Grecian mythology. *Arachne*, it is said, was a Grecian lady in the long ago marvellously skilled in spinning. So proud was she of her art that she aspired to compete with the goddess *Minerva*; but her presumption was punished by her being transformed into a spider. But though so humiliated, she yet retained her skill, and wove webs of wondrous beauty; and so it comes to pass that the spider family are known to naturalists as the *Arachnida*, or "children of *Arachne*."

Now if our young readers happen to be so far advanced in their studies in Natural History as to be interested in the classification of the *Arachnida*, we will briefly say that *Linnaeus* and older naturalists used to call the spider an "insect." But since *Lamarck* they have been separated into a distinct class. They have articulated skeleton; usually eight legs, consisting of seven joints; they have from two to seven eyes—fixed, not movable, but placed in different parts of the head in the different species to accommodate their varied habits. They have "falces," or mandibles, to seize their prey, and maxilla, or what might be called a mouth, to squeeze and eat them.

Now we have done the scientific. Let us study one or two species of the spider. But before we do that I would like to tell you about the "web."

Most of the *Arachnida* live by catching insects in nets which they weave in bushes, on fences, in outhouses, and not infrequently in our homes.

This web is a wonder of lightness, elasticity, and strength. It is the strongest material of its size known. It comes from the spinneret, located in the rear of the abdomen of the animal, and is composed of thousands of distinct threads blended into one. This blending accounts for its great strength. This apparatus and instinct were furnished the spider long ago, long before men thought of twisting together many strands of wire to make a strong and pliant rope. These webs are also elastic, and yield to the strain of the wind or the spider's weight. The strands are also covered with a viscid humor or paste, that not only keeps the intersections of the web glued fast, but, like birdlime, fastens the prey to the meshes.

These webs of the spider are not only used as nets and air-sieves to catch its prey, but sometimes his spinnerets afford him the means to escape from danger. *Seth Green*, the fish-raiser, tells us of an observation of his. He placed a pole in the middle of a little pond, and put a spider on it. It

first spun a long thread, and let the wind blow it out lengthwise, in hope it would find lodgment on the shore. After having tried this method of escape in vain, finding the wind not strong enough to aid him, he resorted to another ingenious experiment. Climbing to the top of the pole, he commenced to make a silken balloon; when made, he attached it to the pole with a strand, got into it, and finding it too small, constructed a larger one. Then seemingly satisfied he cut the guy-rope and sailed away to land. Is not that wonderful?

We sometimes call the nets the spiders weave in our houses cobwebs. This comes from the Dutch word for spider, "coppe." Good housekeepers don't like to acknowledge having seen them in the corners of their rooms, but

like to describe in brief three varieties of the *Arachnida* that have always seemed to us very interesting specimens of the family.

First, the Trap-Door Spider, "*Mygale niculans*," found not only in the West Indies, but in California. This spider lives in the ground, does not spin a web for catching insects, but chases and captures them upon the ground. His home is a marvel of skill. He digs a perpendicular hole in the earth where there is a slope, so that water may not interfere with him. He then lines it with a silken web more beautiful than any regal tapestry. He constructs a door of earth on the upper side, made to look just like the ground about it, while on the inner side there is the same silken lining and hinges of the same material, so



THE WEB AND ITS VICTIMS.

as a spider can weave one in the night, it ought not always to be a sign of untidiness. *Hogarth*, in one of his pictures, represents neglected charity by sketching a spider-web over the aperture of the collection-box; and one of our modern poets, in describing the peace that has followed our fratricidal war, weaves a spider's web over the cannon's mouth; and among the Jewish legends I read that when *David* entered the cave of *Adulam*, a spider quickly wove a web across its entrance, that *Saul* passed it by, convinced that the fleeing *David* could not have entered it for refuge.

We have in the illustration the webs of the common spiders with some poor victims of their snares vainly endeavoring to extricate themselves. We would

that its lid when raised will fall back to its place. From his door he emerges at night to search for his prey. The lid closes after him. Having secured his food, he lifts his portal with his strong feet, and passing in, the door closing after him, he enjoys his meal in security.

Another interesting species is the Water Spider, "*Argyroneta Aquatica*." He lives in the water, and yet is an air-breathing insect. Some amphibious animals, like the porpoise and seal, though they can remain under water for a good while, yet are forced to the surface every few minutes; but this little fellow can live for weeks beneath the water. The explanation is curious. He takes the air down with him. First, he builds a little gossamer home down at the bottom of the pond

between some water-plants; he coats it with glue to make it water-tight, leaving an aperture at the bottom for a door. It is as yet filled with water. He now makes a little bag of his web, goes to the surface, fills it with air, and going down empties it into his house; it bubbles up to the roof and stays there, displaying the water. Again and again he does this, until he has an air-castle in which he can breathe and rear his family, the open door beneath keeping the air pure. This home of our veritable water nymph resembles a globule of quicksilver. As the little fellow gets his food from insects that live on or in the water, he is thus wonderfully provided.

Another species has always excited our admiration—the Raft Spider, "*Dolomedes fimbriatus*." This spider subsists upon the insects that skim upon the surface of ponds and streams; and while his feet are so constructed that he can run very swiftly for a short distance upon the water, he cannot entirely live upon it, so he constructs a raft of leaves, lashing them together with the silken cords that his spinneret affords, and pushing out from shore, is drifted by the winds or currents to where his prey is disporting itself. The dead leaves conceal the spider, the insects imagining no danger, when suddenly the fierce and hungry little fellow leaves his raft and gives chase; returning with his prey, he leisurely devours it. Oh, how wonderful is all this! It seems more like reason than instinct. It is as if, seeing that leaves fallen from the bushes and trees and floated out by the wind and currents do not frighten the insects that sport upon the water, he uses one, as the sportsmen do our sink-boats when we would approach a flock of ducks. But we must not fail to notice how the Creator makes every faculty and function of his creatures in harmonious adaptation to the end of their being. Unlike the web-weaving spider, his feet are formed so that he can run swiftly upon the surface of the water, and his eyes are so constructed that he can discern his prey at long distances, both of which are necessary that he may be able to provide for his sustenance.

There is another lesson. All these creatures use their knowledge, skill, and functions in doing just that, and that only, which their Creator intended them to do. I wonder if we are always found using our faculties and powers just in those directions in which they were wisely intended to be employed?—*Illustrated Christian Weekly*.

As THE night follows the day, so surely and naturally does an irreligious and a corrupt manhood or womanhood follow an irreverent childhood.