## THE EDUCATIONAL REVIEW.

are as deserving of our notice as the more brightly colored ones, for they fulfil the office that all flowers fulfil, namely, produce and bring to perfection the seeds. Examine a catkin that has just been put forth from a willow branch. If you find that it contains staminate flowers, all the flowers on that tree will be staminate. Examine other willow trees near. If you find one with pistillate flowers, then all flowers on that tree will be pistillate. The willow is directions —its staminate and pistillate flowers grow upon separate trees.

MURA YTERA'S XAOOA

Next, study a birch, an alder, or a hazel, where the staminate and pistillate flowers grow upon the same plant (monœcious). Here is a picture of the branch of a hazel. The three long catkins are

staminate. Picking one of these, take with the point of a knife, or a needle, one of its small flowers and examine it with a magnifying glass. It will be seen to consist of a stamen with a short filament adhering to a bract, as in b; the inconspicuous pistillate flowers are seen on the same branch at c, and of them enlarged is seen at d. The principal objects in these pistillate



flowers of the hazel are the long, red stigmas, which are quite noticeable when they are ready to receive pollen. The ovary which we might expect to find at their base, as in the case of the fertile flowes of the willow, is not developed until later on. Examine birches and alders for pistillate as well as staminate flowers.

phur colored dust. (The willow catkins, you will find, are visited by bees and other insects, which carry the pollen to fertilize the ovules in the flowers of the pistillate catkins. All the other trees are, it is supposed, wind-fertilized).

Do you see the importance of these trees producing their flowers before their leaves? It is that their pollen may have free play and find its way to the pistils unobstructed by leaves.

For the REVIEW.]

## A Lesson on Snails.

Snails, being insignificant little animals, are generally overlooked. But, although small, they are none the less interesting in their food, habits, structure, etc. They are abundant in summer, the fresh water ones being found in stagnant pools, adhering to blades of grass, pieces of wood, etc. While the land snails on the other hand inhabit damp woods, and are easily found by lifting up decayed logs of wood, also under the leaves and twigs which strew the ground. Our snails are mostly of small size, but farther south they get larger, until in the tropics they attain all their beauty of color, size, etc. They are vegetable eaters, as is seen by the damage they inflict on our forest trees, and occasionally in gardens. They are slow creatures, secreting a milky fluid while crawling, which enables them to proceed with greater rapidity. This mucus is secreted from all parts of the body, as is seen when the snail is annoyed. The snails, when winter comes, hibernate or become torpid, that is they lie as if dead until the spring, when as the snow melts they gradually come out. Snails are oviparous, or produce their young from eggs. They are said to possess great vitality, having been seen frozen in

What a world of interest will be opened to your pupils if you put them on the track of finding out just what kind of flowers are produced by each tree, for nearly all are in flower early, most of them before their leaves are put forth, and nearly all of them of the same simple and inconspicuous character as those described above. If your pupils ask you hard questions about them, or you are in doubt as to their characteristics, the REVIEW may be able to assist you if you will ask.

These flowers in the long pendulous catkins secrete abundance of pollen, and about the time the REVIEW makes its visit this pollen will be shedding, and scattered far and near by the winds, to fall on the stigmas of the pistillate flowers, to ripen and turn into seeds the ovules which are contained in the ovaries. This pollen is scattered in such abundance that often streams and pools of water in the vicinity are covered over with this sul-

blocks of ice and when put in a hot place have come to life again. Slugs are often confounded with snails but belong to a different family, having usually no visible shell, though a rudimentary one is often present, either obvious or concealed beneath the mantle.

The external structure of a snail may now be noticed. The lower flat part is the so-called "foot" of the snail, but includes the stomach and digestive organs, and as on the foot the animal crawls, it explains the name of gasteropod or "belly-footed" by which this group of animals is known. Near the front of the foot is situated the mouth, and on either side of this the tentacles or horns of the snail, by which he investigates the nature of surrounding objects, or feels his way through the world. At the base of the horns are situated the eyes, sometimes borne on little stalks. Under the shell is seen the orifice of the lung, through which the snail breathes. We will now notice the parts of a shell. The mouth