

revealed, with the utmost fidelity, in the expression of his eye, and it has been rightly called "the window of the soul."

82. Many of the invertebrate animals have the eye constructed upon the same plan as that of the vertebrate animals, but with this essential difference, that the optic nerve which forms the retina is not derived from a nervous centre, analogous to the brain; but arises from one of the ganglions. Thus, the eye of the cuttle-fish contains all the essential parts of the eye of the superior animals, and, what is no less important, they are only two in number, placed upon the sides of the head.

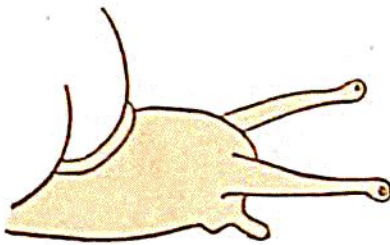


Fig. 15.

83. The snail and kindred animals have, in like manner, only two eyes, mounted on the tip of a long stalk, (the *tentacle*,) or situated at its base, or on a short pedestal by its side. Their structure is less perfect than in the cuttle-fish, but still there is a crystalline lens, and more or less distinct traces of the vitreous body. Some bivalve mollusks, the scollops for example, have likewise a crystalline lens, but instead of two eyes, they are furnished with numerous eye-spots, which are arranged like a border around the lower margin of the animal.

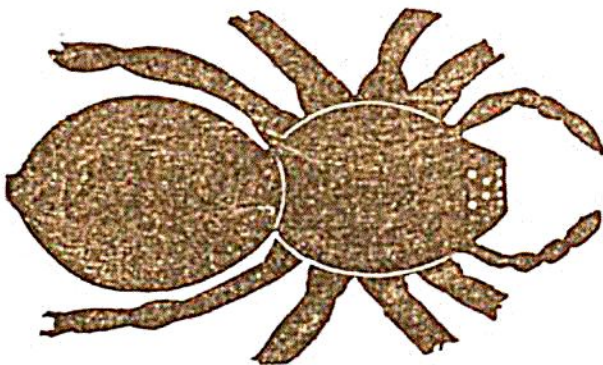


Fig. 16.

84. In spiders, the eyes are likewise simple, and usually eight in number. These little organs, usually called *ocelli*, instead of being placed on the sides of the body or of the head, occupy the anterior part of the back. All the essential parts of a simple eye in the corner, the crystalline lens, the vitreous body, are found in