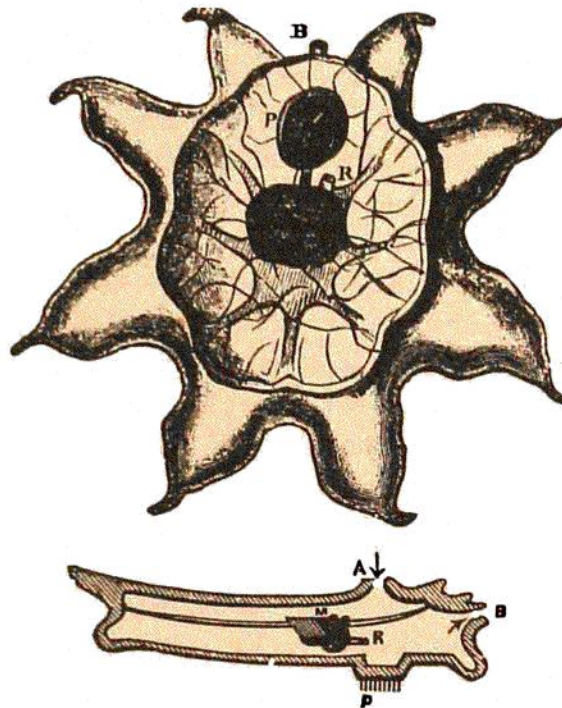


eight conical radially disposed lobes. The walls of the body are perfectly transparent. The animal is provided with a small pedicle for attaching itself to the sea bottom; but the greater part of its under surface is free and unattached. The usual exhalant and inhalant apertures are present, as will be best understood by reference to the diagrammatic section in the woodcut.

There appears to be no gill network present, but the respiratory sac is flattened out so as to be stretched as a horizontal membrane across the cavity of the body between the inhalant and exhalant apertures, as shown in the section. The



DEEP-SEA ASCIDIAN, OCTACNEMUS BYTHIUS.

Above. The animal viewed from below of one-half the natural size; the nucleus is seen in the centre through the transparent base of the animal. *P* Pedicle of attachment; *B* Exhalant orifice; *R* Rectum.  
Beneath. Diagrammatic section through the middle line of the animal's body; *A* Inhalant orifice; *M* Muscle attached to nucleus, other letters as in the figure above.

principal viscera are gathered together into a compact nuclear mass, just as in *Salpa*, and this nucleus is attached to the under surface of the horizontal membrane.

The nerve ganglion lies on the nucleus, and there is a globular sense organ in connection with it. Special muscular slips are present on the surface of the nucleus, and there are elaborate muscular arrangements within the conical processes of the body of the animal, and in connection with the horizontal membrane. The animal seems to be entirely without immediate affinities