

immovable substance. Oftentimes it is found attached to the antennæ of the spider-crab (*Libinia canaliculata*). The main stem (*Fig. 2, d*) never rises to an erect position, but always creeps, stolon-like, over the body to which it is attached, while the pedicels (*a*) of the sterile hydræ stand up like the stems of the Tubularians. These pedicels are always simple, varying from three, to four sixteenths of an inch in height, and are faintly ringed from top to bottom. The rings are not so strongly marked as in some other species, but are, more properly, slight waves (*Fig. 3, c<sup>2</sup>*). At the top of the pedicel there is, however, one well-developed ring (*c<sup>3</sup>*), upon which the calycele rests. The calycele (*c<sup>1</sup>*) is deeply campanulate, has a smooth edge, and its depth is to the breadth as four to three. The wall of the cup is very thick, in fact three or four times as thick as the wall of the pedicel; it thins out suddenly at the edge, but at the lower part it abruptly doubles its thickness, to form a diaphragm (*c*). This diaphragm, or transverse semi-partition, is altogether different from that of any of the upright and branching forms of the Campanularians; in profile it has the form of an equilateral triangle, of which one side is based upon the calycele, and the other two sides are free, one facing toward the mouth of the cup, and the other, obliquely, toward its base. The free edge is rounded, and the inferior face is concave, so that it embraces a spherical cavity.

The reproductive hydræ (*Fig. 2, b*) do not seem to have any systematic arrangement upon the creeping stem, but arise indiscriminately with the pedicels of the hydræ. Their calyceles have an oval cylindrical shape, and are about twice the length of the calyceles of the hydræ. They are more or less wavy in outline, and frequently have the appearance of being ringed (Pl. XXIX. *Fig. 5*). Their aperture (Pl. XXVIII. *Fig. 16, k<sup>1</sup>*) is truncate, and smooth, and occupies nearly the whole breadth of the calycele. The base of the calycele tapers into a short pedicel (*Figs. 15, 16, and 19, a*), which rises immediately from the creeping main stem. The wall of this calycele is of a uniform thickness throughout (*Fig. 15, k*; Pl. XXIX. *Fig. 2*), and, in this respect, agrees with the pedicel upon which it is based.

The sterile hydræ (Pl. XXVIII. *Figs. 2, a*, and *3, a*) have twenty-four tentacles, exhibiting the same proportions and structural elements as most Campanularians. Compare Pl. XXXIII. *Fig. 5*, and Pl. XXX. *Figs. 4 and 5*. It must be borne in mind, however, that the hydra of this species bears somewhat different relations

*Sertularia*, Gmelin, Linn. Syst. Nat., 1788, p. 3844.

" Abildgaard, in Zool. Danica, 1789, III.  
p. 61.

" Turton, British Fauna, 1807, p. 212.

" Olivi, Zool. Adriatica, 1792, p. 288.

*Sertularia*, Oken, Lehrbuch der Naturgeschichte,  
1815, III. p. 92.

" Bosc, Hist. Nat. des Vers, 1830, III.  
2de éd., p. 94.