

*Stephanactis tuberculata*, n. sp. (Pl. III. fig. 7).

Upper part of the wall covered with larger and smaller knobs, thickly compacted together, lower part smooth; tentacles in four to five alternating rows.

*Habitat*.—Station 232. May 12, 1875. Lat. 35° 11' N., long. 139° 28' E. Depth, 345 fathoms. One specimen.

*Dimensions*.—Height, 2 cm. Length of the pedal disk, 10 cm.; length of the oral disk, 3.5 cm.; breadth of the oral disk, 2 cm.

The single specimen of *Stephanactis tuberculata*, which I was able to examine, is attached to the axis of a *Virgularia*, from which the soft cortical layer has been completely stripped as far as the Actinia extends; the pedal disk encloses the axis so completely that the two margins are pressed together, without, however, becoming fused, and so form a sheath about 10 cm. long. The wall first runs about 2 cm. close to the pedal disk, it then forms a body about 2 cm. high, which, being in a contracted condition, becomes much smaller at the upper end; the body appears fusiform when seen from the oral side (fig. 7, a).

A thick circular swelling, running near the upper margin, divides the wall into a smaller upper and a larger lower portion. The former is slightly inverted as in the genus *Phellia*, and may be completely overlooked from the outside. It is covered with numerous knobs, which lie thickly compacted, smaller and larger intermixed. The smaller are usually rounded spheroidally, whilst the larger stand out as nose-like projections above the level of the smaller; they may be divided into two by shallow furrows.

The lower section of the wall is essentially smooth, as the transverse and oblique wrinkles and furrows are merely caused by contraction. A more pronounced groove extends on either side in a longitudinal direction, downwards from the circular swelling at an equal distance from the two ends of the body (fig. 7). Four small knobs, in the upper surface of which I could make out a little depression with a magnifying glass, lie at the bottom of each groove. As I proved by means of transverse sections, these depressions are the openings of fine canals, which pierce the wall, and form communications between the surrounding medium and the directive intraseptal spaces which lie opposite to them; they may be fitly compared to the cinclides of the genus *Calliactis*.

The circular muscle lies in the knobbed upper part of the wall, and extends downwards as far as the circular swelling. It occupies nearly the entire thickness of the mesoderm, which however it does not greatly increase; in transverse section it is elongated, nearly of equal breadth throughout, and is only reduced a little in size towards the lower end. The bundles of fibrillæ are very small, and distributed with tolerable regularity in the fundamental substance, so that we can hardly observe any arrangement into larger or smaller groups.

Though the sphincter is tolerably strongly contracted, we can make a partial survey of the oral disk. It bears more than a hundred tentacles, placed in from four to five