

The calcareous deposits of the perisoma itself (Pl. VII. fig. 1, *b*), as well as of the pedicels (Pl. VII. fig. 1, *c*), are of quite the same conformation. Nevertheless, a small difference seems to exist; as a rule, the disks of the tables of the typical form are perforated by four holes, though they often have more, while the disks in the Challenger specimen have as a rule four larger central and four more peripheral small holes.

*Thyone pervicax*, n. sp. (Pl. V. fig. 9; Pl. XII. fig. 3).

Body elongate, cylindrical, equally rounded at both extremities. Mouth closed by five prominences of the perisome, stellate. The two ventral tentacles considerably smaller than the rest. Anus without teeth. Body covered by small, conical, hard, close-lying papillæ, carrying the pedicels. No arrangement in rows visible. The body-wall very thick and hard from crowded deposits of three kinds—cups; knobbed buttons usually with four holes; and larger, rounded, mulberry-like, scale-like bodies. Pedicels strengthened by irregular perforated plates or rods and terminal plates; the dorsal pedicels more conical, and with the terminal plates more rudimentary. Colour in alcohol, brownish. Length, 60 or 65 mm.

*Habitat*.—Station, Bahia; depth, 7 to 20 fathoms; a single specimen.

This species (Pl. XII. fig. 3) is remarkable in possessing hard conical papillæ crowded all over the body, on the top of which the pedicels are situated, thus presenting some similarity to Studer's *Trachythyone*. The dorsal pedicels do not seem to be so well developed as the ventral, their sucking-disks being rounded and their terminal plates more rudimentary. The thickness of the perisome, the stellate mouth, and the three kinds of deposits point to a certain relation to the genus *Colochirus*.

The calcareous ring (Pl. V. fig. 9, *a*) is composed of ten simple pieces, the radial with a deep incision posteriorly as well as anteriorly, giving the aspect of short, posterior prolongations. The three ventral pieces are slightly smaller than the rest. A single Polian vesicle and madreporic canal are present. The retractors communicate with the longitudinal muscular bands at about the first fourth of the body. The reproductive organs are well developed, consisting of numerous slender, simple tubes. The respiratory-trees are nearly of the same length as the body itself.

The outermost layer of the perisome contains the cups (Pl. V. fig. 9, *b*), which are pierced by four holes, and have the spinous rim directed outwards; their diameter measures about 0.048 mm. The very numerous buttons (Pl. V. fig. 9, *c*) are oval, 0.12 mm. long, and usually distinguished by four holes and a smaller number of large knobs. The mulberries are scattered among the former, and have a diameter of about 0.4 mm.

There seems to be reason to refer this species to the genera *Cucumaria* and