

chyma spicules of approximately the same dimensions, characterised by a rudiment of the fourth ray, by the undulating lateral rays, and by the comparative length of the basal ray—twice as long as the lateral. I cannot decide whether these are modified triradiate spicules of the parenchyma or of the subgastric region, or quadriradiate spicules of the parenchyma grown considerably larger. They are not numerous.

*Dermal triradiate spicules.*—Sagittal; all rays in the same plane, either rather cylindrical or tapering from the base to a sharp point; basal ray straight, lateral rays curved outwards, each forming with basal ray an angle of about  $120^\circ$ ; absolute length very variable, in most cases lateral rays 0.4 mm.; basal ray 0.3 to 0.4 mm., the proportion between the length and the thickness of the rays being 20 : 1.

*Large acerate spicules.*—Usually not longer than 6 mm., occasionally reaching 10 mm. (var. *goliath*—immediately under the osculum, projecting from the inner surface), with a diameter never exceeding 0.05 mm.; either spindle-shaped, tapering at either end from the centre to a sharp point, or lanceolate; occasionally of irregular outlines, one end being sharp-pointed, the other truncated or irregularly spherical.

*Linear acerate spicules of the peristome.*—Attaining a length of over 5 mm., with a diameter of 0.005 mm., either straight or slightly curved.

*Minute acerate spicules.*—Spindle-shaped, tapering from centre to sharp points, rarely exceeding 0.125 mm. in length, and 0.0025 mm. in diameter.

*Colour.*—White, cream-white, and dirty yellowish.

*Habitat.*—Station 36, April 23, 1873, off Bermudas; depth, 32 fathoms; mud. Station 209, January 22, 1875; lat.  $10^\circ 10' N.$ , long.  $123^\circ 55' E.$ ; Philippine Islands; depth, 95 to 100 fathoms; mud.

*Leuconia typica*, n. sp. (Pl. VII. figs. 2a–2c).

The three specimens representing this species in the Challenger collection are to be referred to two varieties with the following diagnoses:—

*Leuconia typica*, var. *tuba*: tubular, gastric cavity narrow elongated; apical rays of gastric quadriradiate spicules not longer than 0.06 mm., usually still shorter; fine linear acerate spicules reaching 0.3 mm. in length.

*Leuconia typica*, var. *massa*: lumpy, stout, massive, the longitudinal axis shorter than the transverse; gastric cavity considerably reduced, calyciform; apical rays of gastric quadriradiate reaching 0.1 mm. in length; fine acerate spicules not longer than 0.15 mm.

Both the specimens of the variety *tuba* are 25 mm. long, the average thickness of the walls being 3 mm. The specimen of the variety *massa* is 8 mm. high, 18 mm. broad at its