

also defend the upper and lower margins of the poriferous areas; the upper fringe is directed downwards over the area and over the lower fringe; this also is directed downwards and therefore away from the area. The skin of the sponge is produced about the proximal part of the fringes, both of the oscule and poriferous areas, thus converting them into membranous tubes.

The rootlets are small, without basal cones, for the most part torn away.

In young forms the sponge resembles *Thenea grayi* in form, the oscule is lateral and a single poriferous area is situated on the opposite side; additional poriferous areas appear to be added with growth.

*Spicules*.—I. Megascleres. 1. *Oxea*, fusiform, 5.0 by 0.06, and 9.3 by 0.05 mm.

2. *Protriæne* of the usual form, with long conical cladi curving forwards; rhabdome 3.9 by 0.052 mm.; cladi 0.785 by 0.04 mm.; chord 1.4 mm.

3. *Dichotriæne* of the usual form; rhabdome 3.14 by 0.03 to 0.05 mm.; protocladi 0.163 by 0.04 to 0.045 mm.; deuterocladi 0.678 by 0.032 mm.

4. *Somal and radical anatriænes* (Pl. VIII. figs. 2, 3) of the same form. A slender cylindrical rhabdome with slender, sharply-pointed, much recurved, cladi; in specimens from Station 106 the rhabdome is frequently produced beyond the cladal origin for a variable distance, so as to give rise to a mere mucrone or tubercle, or a long rod-like spine, either rounded off or sharply pointed at the end; in other words the cladome is subterminal to mesactinal in position. Rhabdome 4.641 to 5.56 (probably often longer) by 0.0125 mm.; cladi 0.4 by 0.0115 mm.; chord 0.239 mm.; distal prolongation of the rhabdome from 0.0 to 0.357 mm. long.

II. Microscleres. 5. *Plesiaster* (Pl. VIII. figs. 4–5) small, with slender actines obviously spiral, seldom monocentral; actines often minutely spined; a single actine 0.06 to 0.09 by 0.0039 mm.

6. *Spiraster* (Pl. VIII. figs. 7, 8) large, a spire with numerous spirally arranged spines, sometimes roughened, and sometimes slightly tylote; total length from 0.0395 to 0.0474, length of a single spine 0.0012 to 0.0019 mm.

*Metaster*; absent.

*Colour*.—Yellowish-white (Station 123); greyish-white (Station 106).

*Habitat*.—Station 106, south-west of Sierra Leone, August 25, 1873; lat. 1° 47' N., long. 24° 26' W.; depth, 1850 fathoms; bottom, Globigerina ooze; bottom temperature, 36°·6.

Station 123, off Macio, September 11, 1873; lat. 10° 9' S., long. 35° 11' W.; depth, 1715 fathoms; bottom, red mud; bottom temperature, 37°.

Specimens described by Oscar Schmidt were obtained from Bequia at 1507 and 1591 fathoms; and from lat. 24° 36' N., long. 80° 5' W., at 955 fathoms.

*Remarks*.—In giving an account of *Thenea muricata*, Bwk., I suggested that