

which is always irregularly undulating or crooked. Rhabdome 4.28 by 0.0968 mm.; protocladi 0.1785 by 0.08 mm.; deuterocladi 0.535 by 0.064 mm.

4. *Somal anatriæne* (Pl. VI. fig. 5), a short, slender, cylindrical rhabdome, rapidly tapering to a sharp point proximally; cladi long, slender, springing at a wide angle from the rhabdome, and afterwards recurving till nearly parallel with it; rhabdome 0.876 by 0.0079 mm.; cladi 0.95 mm. long; chord 0.1 mm.

5. *Radical anatriæne* (Pl. VI. fig. 6), a very long, slender, sharply pointed rhabdome, terminating distally in a thickened end, from which three stout conical cladi recurve backwards and outwards; rhabdome 18.2 by 0.025 mm. at the level of the cladal angle, diminishing to 0.016 mm. at the level of the ends of the cladi, and 0.011 mm. for the greater part of its length; length of the cladal end of the rhabdome 0.04 mm.; cladi 0.1 by 0.014 mm.; chord 0.095 mm. The rhabdome may in some cases be longer; the above is the length of the longest complete anatriæne which I have observed.

II. Microscleres. 6. *Plesiaster* (Pl. VI. fig. 8), the multiradiate forms often closely approach the monocentral type, but seldom quite reach it; and in most cases their spiral character is very obvious. There is the usual variety in the number of the actines, from six or more down to one. One actine of a tetrad form measures from 0.08 to 0.09 by 0.0118 mm.

7. *Metaster* (Pl. VI. fig. 7), axis very short, usually straight, sometimes slightly curved; spines slender, about four to ten in number, each about 0.02 mm. long.

8. *Spiraster*; a slender spire of about three to four turns, with numerous slender spines, spirally arranged; total length 0.02 to 0.025 mm.; length of a single spine 0.004 mm. The spirasters are chiefly distributed below the epithelium of the exterior of the sponge.

*Colour*.—White, with a yellowish-grey tinge.

*Habitat*.—Station 209, off Zebu, January 22, 1875; lat. 10° 14' N., long. 123° 54' W.; depth, 95 fathoms; bottom, blue mud; bottom temperature, 71°.

Also Zebu (Sollas on *Thenea wallichii*, *loc. cit.*, p. 451).

*Remarks*.—This handsome sponge forms a well-marked species, distinguished by its general form, the characters of its oscular and poriferous areas, and the unusually thick and crooked shaft of its dichotriæne. The rich development of collenchyma and the smallness of its flagellated chambers are characters which it shares with *Thenea muricata* only.

Three specimens (one uninjured and complete) and several fragments were observed. The upper moiety (pileus) of the perfect specimen measures 50 by 47 mm. along two diameters, its total length from base to summit is 68 mm., the thickness of the body of the sponge is 26 mm. The cloaca, an elongated depression, is 23 by 14 mm. in breadth and width, the lining membrane is minutely perforated and without fenestræ. The second almost complete specimen is more circular in outline as seen from above, the