

of the canal walls, or excavating the sarcenchymatous face of the latter, in order to supply the adjacent chambers. The incurrent canals appear to communicate directly with the adjacent chambers wherever they may lie. The flagellated chambers are small, on an average 0.02 by 0.0275 mm. in length and breadth.

One must not omit to mention that, in the collenchymatous canal walls, cylindrical cells with swollen bases, extended into one or more long filaments, are to be observed, the cylindrical end in which the nucleus is situated lying contiguous to the lining epithelium, and the filamentous end radiating into the plexus of collencytes.

The remaining Stellettidæ are heterasterose, *i.e.*, more than one form of microsclere is present; the additional microsclere may be another euaster, a sanidaster, amphiaser or microrabd.

Subfamily 2. EUASTERINA.

Heterasterose Stellettidæ, in which the additional microsclere is a euaster.

Genus 4. *Anthastra*, Sollas.

Sponge usually more or less spherical; oscules distinct or not; pores in sieves overlying subdermal cavities. Ectosome thin, collenchymatous; excavated by extensive subdermal cavities. In addition to a chiaster an anthaster is present.

Anthastra pulchra, Sollas (Pl. XII. figs. 1-28).

Anthastra pulchra, Sollas, Prelim. Account, Sci. Proc. Roy. Dubl. Soc., vol. v. p. 191, 1886.

Sponge (Pl. XII. fig. 1) small, globular, free. A single small oscule on the summit. Pores in cribriform areas, generally distributed. Surface even, harsh to the touch. The oscule is surrounded by a membranous margin, and leads into a cloaca, which receives several comparatively large excurrent canals opening into it by sphinctrate mouths.

The ectosome is from 0.318 to 0.478 mm. thick.

Spicules.—I. Megascleres. 1. *Oxea* (Pl. XII. fig. 2), fusiform, straight, or more usually curved, somewhat sharply pointed; from 2.39 to 3.1 by 0.0315 mm.

2. *Orthotriæne* (Pl. XII. fig. 3), a conical rhabdome, very sharply pointed or rounded off close to the point; simple conical cladi, rapidly and regularly curving out into horizontality. Rhabdome 2.6 to 2.9 by 0.0474 mm., cladi 0.25 to 0.27 mm. long.

3. *Anatriæne* (Pl. XII. fig. 4), a conical rhabdome, very sharply pointed or rounded off close to the point; cladi extending horizontally for from one-third to one-half of their course, and then curving backwards and outwards. Rhabdome 2.6 to 2.9 by 0.0315 mm., cladi 0.125 mm. long, chord 0.181, sagitta 0.1114 mm.

II. Microscleres. 4. *Anthaster* (Pl. XII. figs. 7-13), actines conical, spined, varying