

The microxeas are scattered in considerable numbers through the collenchyme, but are not abundant enough to form a felt.

*Spongin*.—Where the large spicules touch each other they are sometimes united by a small quantity of spongin, which is developed around the point of contact. When the spicules are separated from each other the spongin remains adherent to one of them in the form of a little cup; several such cups are sometimes to be met with on one and the same spicule (Pl. IX. fig. 28).

*Pæcillastra crassiuscula*, Sollas.

*Normania crassiuscula*, Sollas, Prelim. Account, Sci. Proc. Roy. Dubl. Soc., vol. v. p. 185, 1886.

*Sponge*.—A thick vertical plate, outer incurrent face even, ending sharply above along a well-marked linear edge; inner excurrent face rounded off above against the incurrent edge; raised into rounded eminences, each bearing a single oscule. Both surfaces sparingly hispid. Incurrent canals running more or less vertically upwards to terminate in the patent oscules. Pores distributed in sieve-like areas over the origin of the incurrent canals, which cross the sponge wall more or less transversely.

The flagellated chambers measure 0·0355 by 0·0395 mm. in length and breadth.

*Spicules*.—I. Megascleres. 1. *Oxea*, stout, fusiform, not sharply pointed, straight or more usually curved, 2·856 by 0·058 mm.

2. *Orthotriæne*, with conical somewhat sharply pointed rhabdome and cladi, rhabdome not much longer than the cladi, both of about the same diameter. Rhabdome 0·678 mm., cladi 0·607 mm. long, both 0·0387 mm. in diameter.

3. *Calthrops*, of the usual form, one actine 0·65 by 0·048 mm. Both this and the orthotriæne comparatively rare.

II. Microscleres. 4. *Microxea*, slender, straight, or gently curved, 0·136 by 0·00395 mm.

5. *Metaster*, numerous, frequently reduced to a plesiaster with four actines. One actine of a tetractinose plesiaster measures 0·0198 by 0·00197 mm.

6. *Spiraster*, numerous, spire with several turns, spines numerous, total length 0·0197 mm., length of a single spine 0·004 mm.

*Colour*.—Greyish-white.

*Habitat*.—Porto Praya, St Iago; depth, 100 to 128 fathoms.

*Remarks*.—Both in general character and minute anatomy this sponge closely resembles *Pæcillastra schulzii*, the chief difference lying in the longitudinal course taken by the excurrent canals in the present species. It is represented by a single fragmentary specimen, which is perfect, however, as regards the upper margin, the basal part being that which has disappeared. It measures 19 mm. in height, 10 to 14 mm. in thickness, and 30 mm. in width, but was wider when complete.