

The lamellæ are slightly curved; the concave may be spoken of as the inner face, the convex as the outer. Beneath the skin of the inner face is a network of subdermal canal-like cavities, running in a crooked course, chiefly longitudinally, *i.e.*, radially from the base, and branching and anastomosing laterally. A similar but more widely marked network of subdermal canals occurs over parts of the outer surface. The skin of the inner surface is perforated by oval apertures from 0.08 mm. in diameter to 0.254 by 0.334 mm., one or sometimes two lying in an area of membrane bounded by the arms of adjacent triænes and tangentially disposed oxeas. The pore-bearing area is depressed within the spicular framework, and this produces the regular pitting already mentioned as characteristic of the inner surface. That of the outer surface is perforated by more numerous and smaller apertures about 0.05 by 0.08 mm. in diameter, several lying together in the areas bounded by adjacent spicules. On removing the skin from the inner face, the open ends of transverse canals of small but somewhat uniform diameter are exposed; on removing the skin from the outer face, the open ends of canals are similarly displayed, but these are of less uniform size, many being much larger than those of the inner faces.

The oxeate spicules and triænes are much subject to a rounding-off of the ends; in one instance the usually slender, sharp-pointed microxea was found to have undergone the same modification; the ends, which are roughened, are rounded off, at some distance from what would have been their normal position, and in addition the spicule has become swollen in the middle (centrotylote), so that it presents a very close resemblance to the centrotylote oxea, which occurs as the sole microsclere of some other sponges.

The spirasters are present in a dense layer below the outer epithelium, and do not appear to be present elsewhere, metasters replacing them in the interior. The microxeas are far less numerous than in *Pæcillastra tenuilaminaris*.

In minute structure and the arrangement of the spicules the sponge resembles *Pæcillastra schulzii*; the flagellated chambers measure about 0.0276 to 0.0316 mm. in diameter.

*Pæcillastra tenuilaminaris*, Sollas (Pl. V. figs. 17, 18).

*Normania tenuilaminaris*, Sollas, Prelim. Account, Sci. Proc. Roy. Dubl. Soc., vol. v. p. 186, 1886.

*Sponge* (Pl. V. figs. 17, 18).—A very thin lamellar wall 3 to 3.5 mm. thick, irregularly curved, with an irregularly sinuous rounded margin; surface generally but sparingly hispidated by projecting oxeate spicules; no special hispidating fringe at the margin; oscules minute, distributed evenly over one face of the sponge; pores similarly dispersed over the opposite face.

*Spicules*.—I. Megascleres. 1. *Oxea*, stout, fusiform, straight or curved, not sharply pointed, frequently rounded at one or both ends, and so reduced either to styles or a short cylindrical strongyle; 3.4 by 0.042 mm.