

tent-like eminences. Towards the base of the sponge the somal anatriænes pass into the radical form (6), and the protriænes become more numerous. The differentiation in form is evidently connected with a difference in function either in kind or more probably in degree. The rooting anatriænes can only resist a pull, they have no rigidity capable of meeting a thrust, and hence we may regard them as strictly comparable in their action to the anchors used for securing ships at sea.

The trichodal protriænes are most abundantly developed around the edges of the pore-areas (Pl. I. fig. 12), and about the margin of the oscule. The number of the cladi is frequently reduced to two, or one, or they may be altogether absent, the distal club-like thickening from which they arise when present still, however, persisting.

Owing to the tenderness of the ectosome, and the loose way in which the spicules of the fibres are aggregated, the sponge is extremely soft and easily torn. The course of the fibres is but slightly spiral.

*Tetilla pedifera*,<sup>1</sup> Sollas (Pl. XLI. figs. 6–21).

*Tetilla pedifera*, Sollas, Prelim. Account, Sci. Proc. Roy. Dubl. Soc., vol. v. p. 180, 1886.

*Sponge* somewhat thumb-shaped, erect, sessile (?). Surface finely hispid, owing to the projection of brushes of protriænes; raised into irregular, somewhat tent-like eminences, which tend to form ridges; oscules numerous, small, 1 mm. in diameter and less, usually situated on the summit of the tent-like projections; oscular margin a wide smooth membrane, roofing over an excurrent canal of greater diameter than the oscule. Pores apparently distributed irregularly over the surface. Ectosome thin, supported by numerous oxeas, which lie in all directions, parallel to its surface.

*Spicules*.—I. Megascleres. 1. *Oxea*, fusiform, anisoactinate, maximum thickness nearer the distal than the proximal end, the latter frequently attenuated to a filiform extremity, always more sharply pointed than the distal end, 3·213 by 0·03 mm.

2. *Protriæne* (Pl. XLI. figs. 9–11). A slender conical rhabdome attenuated to a sharply pointed filiform extremity; usually slightly swollen just below the origin of the cladi; cladi simple, three, two, or only one in number, slightly curved, directed forwards, and only very slightly outwards, usually of unequal length; when all three are present two are of about equal length, but much shorter than the third; this form by the loss of one of the shorter cladi produces the variety with two, and by the loss of both the shorter cladi the variety with one cladius; rhabdome 2·38 by 0·0118 mm.; the cladi vary slightly in length according to the number present; in the true triæne form, the longer cladius is about 0·15 mm., the shorter cladi about 0·06 mm. long; in the diæne, the longer is 0·152, the shorter 0·071 mm. long; when only one cladius is present it measures 0·158 mm. in length.

<sup>1</sup> *Pedum*, a shepherd's crook.