

jecting spicular ends, which produce the pilosity of the surface, are the cladi of protriænes and anatriænes, and the points of oxeas, but chiefly the cladi of protriænes; they do not extend, as a rule, much more than 0.25 mm. beyond the surface, though, judging from broken rhabdomes, some probably extend much further.

The cladi of most of the projecting protriænes measured *in situ* are 0.142 mm. long by 0.006 mm. in diameter, the length of the chord is 0.108 mm.; these dimensions are below those given in the description of spicules, which, however, were taken from selected largest examples.

*Chrotella macellata*,<sup>1</sup> Sollas (Pl. IV. figs. 1-22).

*Chrotella macellata*, Sollas, Prelim. Account, Sci. Proc. Roy. Dubl. Soc., vol. v. p. 181, 1886.

*Sponge* (Pl. IV. figs. 1, 2) subspherical, depressed, with a flat base; oscules more than one in number, each leading into a large cloacal chamber; upper surface minutely hispid, lower surface coarsely so, by the projection of spicules to a longer distance. Ectosome a cortex, not differentiated into two layers; choanosomal mesoderm sarcenchymatous, flagellated chambers small, aphodal.

*Spicules*.—I. Megascleres. 1. *Oxea* of the spicular fibres isoactinate, fusiform (Pl. IV. fig. 3) with similar sharp ends, which sometimes however become rounded off. Length 5.7 mm., breadth 0.055 mm.

2. *Oxea* of the interspaces between the spicular fibres, smaller than the preceding (Pl. IV. fig. 10), somewhat curved, and only very slightly fusiform:

3. *Protriæne* (Pl. IV. figs. 8, 15) with short stout cladi, highly porrectate, measuring 0.079 by 0.0197 mm.; rhabdome but very slightly less in diameter immediately below the cladome than in the middle, thence tapering gradually to a sharp but not filiform termination, 7.95 mm. and over, by 0.0276 mm.

4. *Protriæne* (Pl. IV. fig. 14) with longer cladi than No. 3, 0.23 mm. long by 0.0197 mm. thick, less porrectate; rhabdome also shorter, 2.5 by 0.0237 mm., and tapering from immediately below the cladome, rather rapidly, to an almost filiform termination.

5. *Prodiæne* and *promonæne* (Pl. IV. figs. 4, 5). Derived from the preceding by reduction in the number of cladi. The rhabdomes of these measure 3.49 by 0.0316 mm.; the cladi of the prodiæne 0.44 by 0.0316 mm., and that of the promonæne 0.58 by 0.0316 mm. These spicules present a singular appearance, owing to the relatively large size of their cladi and the sudden tapering of the rhabdome.

6. *Trichodal protriæne* (Pl. IV. figs. 6, 7). Occurring in bundles in the cloaca and elsewhere.

7. *Anatriæne* (Pl. IV. figs. 9, 13). The cladi are 0.059 mm. long by 0.0138 mm.

<sup>1</sup> μάκელλα, ἡ, a pick-axe with one point.