The abundant development of collenchyme leads to a marked decrease in the number of flagellated chambers, and, in accordance with a very general rule, to a decrease in size also. They still, however, remain eurypylous, the apopyle measuring about 0·012 mm. in diameter. They lie in immediate contact with the walls of the smaller incurrent canals, which, devoid of any marked collenchymatous investment, and surrounded with flagellated chambers, can be traced into the midst of a mass of collenchyme bounded externally by two excurrent canals. The smaller excurrent canals, on the other hand, excavate the collenchyme which lies on the excurrent side of the chambers. The chambers and the smaller canals are frequently filled with a granular material which stains with eosin and gives a very dirty appearance to sections; it would appear to be food in process of digestion or egestion.

With regard to the arrangement and distribution of the microscleres, it may be noted that the plesiaster is confined chiefly to the neighbourhood of the flagellated chambers, seldom extending into the collenchymatous walls of the canals; the metasters are chiefly scattered in a layer beneath the epithelium of the canals, and the spirasters are chiefly confined to the under surface of the epithelium of the surface of the subdermal cavities.

The figure given of the metaster (Pl. VI. fig. 7) is not characteristic, and I regret that no illustration appears of the spiraster; in its absence I would refer as an excellent substitute to that of the spiraster of *Dactylocalyx masoni* given by Bowerbank.[1]

Thenea sp. (Pl. VIII. fig. 23).

Sponge (Pl. VIII. fig. 23).—Small, ovate; surface hispid; excurrent canals opening in a cribriform area which occupies the summit, and which is surrounded by a marginal fringe of long oxea; incurrent canals communicate with the exterior by pores generally dispersed; no specialised poriferous area; base marginally fringed with projecting spicules, the distal ends of which are broken off.

Spicules.—I. Megascleres. 1. *Oxea*, cylindrical with pointed ends; no unbroken specimens met with; 0·044 mm. in diameter.

2. *Protriæne*, a stout cylindrical rhabdome, proximal end not seen; cladi stout and long, curving outwards and forwards at first, then forwards only, or forwards and slightly inwards; diameter of rhabdome 0·055 mm., cladi 0·95 by 0·043 mm., chord 0·7 mm.

3. *Dichotriæne*, of the usual form; protocladi 0·18 by 0·045 mm.; deuterocladi 0·93 by 0·039 mm.

4. *Anatriæne*, a cylindrical rhabdome with a sharply pointed end; cladi diverging outwards and backwards; rhabdome 2·71 and longer by 0·013 mm.; cladi 0·24 mm. long; chord 0·24 mm.

[1] *Proc. Zool. Soc. Lond.*, pl. vi. fig. 4, 1869.