

The ectosome is only distinguished from the choanosome by the absence of flagellated chambers.

The mesoderm is a finely granular collenchyme, which in the immediate neighbourhood of some of the larger canals becomes clear of granules, cavernous, and traversed by a few fusiform cells. The flagellated chambers are eurypylous, from 0·0276 to 0·031 by 0·039 mm. in diameter. The choanocytes are about 0·004 mm. broad at the base, and 0·006 mm. high, the fenestrated membrane in which their distal ends terminate is more clearly marked than the outer wall of the chamber.

The pores vary from about 0·06 to 0·16 mm. in diameter; the oscules are about 2 to 3 mm. in diameter.

The chief interest in this sponge lies in the rarity of its ttractinellid or triæne spicules, the triænes of the surface are few and easily overlooked; so difficult, indeed, are they to find that at first I was in some doubt as to whether the sponge really possessed them, or belonged to the Ttractinellida at all; some fragments 8 mm. square and 4 mm. thick yielded no triænes when boiled with nitric acid; and it was only by finding them in position in the sponge that I arrived at certain conclusions. They are best found by examining the hispid surface with a powerful simple lens, or by slicing off a part of the superficial layer of the sponge with a razor and examining it *en face*.

The sponge is evidently very nearly allied to *Pacillastra*; indeed, I feel by no means sure that it differs sufficiently for generic distinction; further discoveries will determine this. By the disappearance of triænes or calthrope from the interior, a certain resemblance to *Stryphnus* is produced, which differs, however, by the presence of true asters, in possessing a cortex, and in the substitution of a sarcenchymatous for a collenchymatous mesoderm.

Genus 5. *Triptolemus*,¹ n. gen.

Theneidæ in which the characteristic megasclere is a mesotriæne. The microscleres are similar to those of *Normania*, but the microxeas are of hair-like thinness and entirely spined.

Triptolemus cladosus, n. sp. (Pl. XXXV. fig. 23).

Samus quadripartita, MS., Carter.

Sponge.—Small, incrusting.

Spicules.—I. Megascleres. 1. *Oxea* (?).

2. *Mesotriæne* (Pl. XXXV. fig. 23) tetracacladose. Rhabdome with conical similar actines, not sharply pointed; the length of the actines could not be exactly ascertained,

¹ By a singular omission, which I hasten to supply, no one so far as I can ascertain has yet honoured *Triptolemus* with a genus.