

Both inner and outer surface rendered thinly hispid by slender projecting oxeate spicules, which extend further from the surface in the lower and interior part of the vase than elsewhere.

Ectosome, thin, collenchymatous. Choanosome, mesoderm a collenchyma, flagellated chambers eurypylous, about 0.0275 to 0.0395 mm. in diameter, often oval in section, then, 0.0434 by 0.0353 mm. in diameter.

*Spicules*.—I. Megascleres. 1. *Axial oxea* (Pl. X. fig. 3), stout, fusiform, obtusely pointed, straight or curved; 3.034 by 0.0774 mm.

2. *Hispidating oxea* (Pl. X. fig. 2), slender, cylindrical, sharply pointed, 3.927 by 0.0387 mm.

II. Microscleres. 3. *Aster*, with few actines (Pl. X. fig. 6), centrum absent, actines variable in number, most frequently four, then usually of calthrops form, sometimes less, three or two, then producing a centrotylote microxea, or only one; sometimes more, as many as five or six. The inclination of the actines is also variable, sometimes a tetractinose form is not a microcalthrops but a staurus, and a triactinose form may resemble a staurus with one actine suppressed. The variations in the form of this spicule are similar to those of the corresponding spicule in *Thenca*. The actines are conical, strongylate, and slightly roughened towards the ends; they measure 0.0276 by 0.004 mm.

4. *Asters*, with several actines. These differ from the preceding in presenting slightly smaller dimensions and somewhat more numerous actines, usually six to eight in number. Length of a single actine, 0.008 mm.

*Colour*.—White, of a faint greyish tinge.

*Habitat*.—Station 192, September 26, 1874; lat. 5° 49' 15" S., long. 132° 14' 15" E.; depth, 140 fathoms; bottom, blue mud. Trawled.

*Remarks*.—Only a single specimen of this elegant vase-shaped sponge was trawled. It measures 73 by 51 mm. across the brim; its total height is 46 mm.; the thickness of the wall about 3 mm.; the rigid stem is 12 mm. high and 6 mm. thick.

The interdigitating excurrent and incurrent canals cross the wall transversely, so that in transverse section the choanosome appears more or less regularly folded (Pl. X. fig. 10). Branches looking like minor folds proceed from both sets of canals, which subdivide till only a single layer of flagellated chambers intervenes between their ultimate ramifications.

The ectosome, averaging about 0.318 mm. in thickness, is a collenchymatous layer coated by epithelium, which on the incurrent face is subdivided into an outer layer which is perforated by the pores, and which forms the roof to widely extending subdermal cavities; and an inner layer which forms the outer ends of the choanosomal folds, and from which it arises by the suppression, where it occurs, of flagellated chambers below. Immediately over the wide apertures of the incurrent canals the poriferous roof alone is found. The outer ectosomal layer of the poriferous face is of variable thickness, about