

extremely soft and spongy, elastic, fibrous, tough. *Surface* granulated. *Dermal membrane* thin and transparent, with fairly numerous, rather large pores. *Oscula* on the top and lateral margins of the sponge.

Skeleton.—Very well developed; (a) *Dermal*; a reticulation of spiculo-fibre supporting the dermal membrane; with irregular polygonal meshes and fibre varying in thickness. (b) *Main*; a rectangularly-meshed reticulation of fairly stout spiculo-fibre in which primary and secondary lines are readily distinguished, the ends of the primary fibres commonly projecting for a short distance beyond the level of the dermal reticulation. The primary fibres measure up to about 0.07 mm. thick, and the secondary fibres are a little thinner; in all the fibres the amount of silica bears no proportion to the amount of horny matter, for the spicules, though polyserially arranged, are of hair-like thinness.

Spicules.—Subcylindrical, or more or less abruptly pointed oxea, measuring only about 0.09 by 0.0014 mm.

This species seems to come near to *Chalina finitima*, Schmidt, but the spicules are very slender, and on the whole we have thought it best not to make an identification.¹

Locality.—Station 162, April 2, 1874; lat. 39° 10' 30" S., long. 146° 37' 0" E.; Bass Strait; depth, 38 fathoms; bottom, sand and shells.

Genus *Siphonochalina*, Schmidt (Pls. VII., XLVI.).

1868. *Siphonochalina*, Schmidt, Spong. d. Küste v. Algier, p. 7.

1882. *Tubulodigitus*, Carter, Ann. and Mag. Nat. Hist., ser. 5, vol. ix. p. 367.

Sponge tubular; tubes smooth, both inside and out, usually narrow, each with a large round opening at the summit.

Schmidt's original diagnosis (*loc. cit.*) runs "Verzweigte oder unverzweigte Röhren. Die Oberfläche dicht, indem zwischen den wenig vorragenden Enden der radiären Fasern ein feineres, dichteres Fasernetz sich ausbreitet."

We have to distinguish between two genera of tubular Chalinine sponges, in the one (*Siphonochalina*) the surface is smooth both inside and out, while in the other the outer surface is beset with large, rugged, spinous processes; for the second genus Vosmaer has proposed the name *Spinoseella*² in place of the old name *Tuba*, which was already occupied. Schmidt's first described species of *Siphonochalina* is *Siphonochalina coriacea* (*loc. cit.*), which is shown by his figure (Taf. ii. fig. 4) to be one of the smooth forms.

A very common feature in the genus is the marked annulation of the tubes, which seems to indicate successive stages of growth.

Unfortunately the genus *Spinoseella* is unrepresented in the collection.

¹ Cf., however, Ridley, Zool. Coll. H.M.S. "Alert," Brit. Mus., 1884, pp. 399, 604.

² Bronn's Klass. u. Ordnung. des Thierreichs, Porifera, p. 342.