

3. *Anamonæne* (Pl. XLI. fig. 12). This is a very characteristic form, somewhat resembling a shepherd's crook. The rhabdome is conical, wide at the cladome, tapering rapidly to a filiform extremity; there is never more than one cladus present; this is as wide as the rhabdome for nearly half its length, directed at first forwards and only very slightly outwards, then rapidly recurving backwards and very slightly outwards; rhabdome 4.46 by 0.0276 mm., cladus 0.13 mm. long, measured along two chords, one from its origin to the middle of its curvature, the other thence to the point; chord 0.055 mm.

II. Microscleres are absent.

*Colour*.—Greyish-white.

*Habitat*.—Station 196, between Amboina and Samboangan, October 13, 1874; lat.  $0^{\circ} 48' 30''$  S., long.  $126^{\circ} 58' 30''$  E.; depth, 825 fathoms; bottom, hard ground; bottom temperature,  $36^{\circ} 9$ .

*Remarks*.—The single specimen obtained of this sponge measures 17 mm. in diameter, and 24 mm. in height. It is readily distinguished from all other species of *Tetilla*, except *Tetilla coronida*, by the presence of the anamonæne, and it is the only species of the genus in which microscleres are not present.

The ectosome is a very thin collenchymatous layer, usually not more than 0.02 mm. thick; below the investing epithelium it presents a few fusiform cells tangentially disposed; about the margins of the oscules these are more abundantly developed and concentrically disposed to form a sphincter. The concentric fibres are crossed by others running radiately, the outer ends of these project a little beyond the surface, their inner ends are either simple or once branched, and appear to unite with large branching collencytes which lie on the distal border of the sphincter. These radiating fusiform cells stain deeply with hæmatoxylin; they are about 0.04 mm. long, with an oval nucleolus about 0.004 mm. long, and a deeply stained spherical nucleolus.

The choanosome (Pl. XLI. fig. 7) may be regarded as composed of a folded lamella, consisting of an ectodermal epithelium on one face, separated from an endodermal epithelium on the other by a single layer of closely adjacent flagellated chambers, with a very small quantity of intervening collenchymatous mesoderm. By the folding of this lamella and the coalescence of the folds in places, a complicated labyrinthic structure arises, the spaces in which, bounded by the endoderm, are the excurrent canals, and those bounded by the ectoderm the incurrent canals. These canals are therefore reduced to their simplest expression; they are not provided with vela or special walls. The flagellated chambers are about 0.04 mm. long by 0.032 mm. broad; the thickness of the folded sponge-wall is thus also about 0.04 mm.

*Genital Products* (Pl. XLI. figs. 7–20).—The mesoderm contains not only flagellated chambers, but clusters of spermatozoa in various stages of development. These resemble