

The long spicules of the tuft are quite smooth and are all broken at their lower end.

7. *Hyalonema (Stylocalyx) tenerum*, n. sp. (Pl. XXXI. figs. 8-20).

In the South Pacific (Station 289, lat. 39° 41' S., long. 131° 23' W.), from a depth of 2550 fathoms and a red clay bottom, a delicate and very loose *Hyalonema* was dredged, which exhibited a pear-shaped body 4 cm. in length, and 25 cm. in maximum breadth. In the middle of the upper, very injured extremity a pointed cone projects, from the sides of which four cruciately disposed longitudinal septa extend to the side wall, separating the central cavity into four chambers. From the lower, somewhat pointed end, a narrow basal tuft projects for about 16 cm. It is composed of about fifty spicules which are wound spirally together, and which exhibit only at the very extremity a somewhat straighter, and more separate course. The general form of the body, as represented on Pl. XXXI. fig. 8, has obviously been very considerably altered by damage done to the upper half. The latter appears to have been much rubbed away, and the superior external margin of the upper terminal surface has been wholly destroyed.

The spicules of the parenchyma consist for the most part of medium-sized smooth oxydiacts, beside which there occasionally occur, especially near the outer wall, smooth knobbed or terminally toothed diacts, and sometimes even monacts (Pl. XXXI. fig. 10). Besides these long rod-like spicules, medium-sized straight oxyhexacts occur in considerable abundance in the parenchyma, while small oxyhexacts with curved smooth rays (Pl. XXXI. figs. 9 and 17) are very prevalent, and exactly resemble the small curved oxyhexacts of *Hyalonema elegans*.

The dermal skeleton contains the often mentioned, moderately large, smooth hypodermal oxypentacts without a trace of a (sixth) distal ray. Numerous large autodermal pentact pinuli also occur—with four rather long basal tangential rays—strongly developed and with toothed pointed ends, while the extraordinary long (1.6 mm. and more), radially projecting distal is beset with short teeth except in the smooth basal portion (Pl. XXXI. fig. 11).

The dermal membrane contains numerous short broad amphidiscs, which exhibit a perfectly smooth, strongly developed axis-rod, bearing hemispherically arched, broad, terminal umbels with smooth, paddle-shaped rays almost meeting in the middle, and occurring in variable number from eight to twelve, but usually ten or eleven (Pl. XXXI. figs. 12, 13, 20). The interior side of the smooth, terminally rounded, paddle-shaped umbel rays exhibits an inward projecting median ridge, ending in an elevation before the extremity of the ray. In Pl. XXXI. fig. 18 one of these abnormal spicules is represented, with four rays, as occasionally occurs in addition to the form with six. Besides these large almost globular amphidiscs, in which the opposite paddle-shaped umbel