dant occurrence of the familiar small amphidiscs with hemispherical many-rayed terminal discs (Pl. XXXII. fig. 14).

No hypogastral pentacts occur in the gastral skeleton, but their place is taken by strands of supporting diacts. The autogastral pentact pinuli are essentially different from the autodermal. They are not only decidedly shorter, and in no way so bushy as the latter, but they exhibit longer, less tuberculated basal rays, and are continued into a slender, pointed, terminal ray.

The oxydiacts, which form the long marginal fringe, bear a smooth, proximal ray, and a distal, beset with obliquely inserted spines, directed downwards and outwards. From the centre two or more, rarely four, rounded, or slightly pointed, lateral tubercles project.

A much torn fragment with isolated, broken tuft spicules, was trawled to the west of Cape York (Station 184, lat. 12° 8′ S., long. 145° 10′ E.), from a depth of 1400 fathoms, and a Globigerina ooze ground.

From the size of the shreds, and the thickness of the tuft spicules, it was to be inferred that the intact body had the size of an average apple. There are no definite indications as to the original form of the body.

In the parenchyma, besides long, narrow, smooth oxyhexacts and oxydiacts, small lank oxyhexacts occur, some with straight, and others with bent, smooth rays, though neither can be said to be abundant.

The dermal skeleton exhibits large, smooth, hypodermal oxypentacts, with tangential rays turned somewhat inwards, and long, slim, slightly spinose autodermal pentact pinuli with moderately long, and terminally spinose basal rays (Pl. XXXIX. figs. 5, 7). Amphidiscs of very various sizes and forms also occur. The larger exhibit a strongly developed axial rod beset with spines, and bear rather broad, campanulate umbels, composed of eight broad, paddle-like, terminally broad and rounded rays (Pl. XXXIX. figs. 2, 3). The length of these rays varies in relation to the total length of the amphidiscs, so that they sometimes attain to only a third of the whole length, at other times to about a half, and sometimes almost meet in the middle. The abundant medium-sized amphidiscs (Pl. XXXIX. figs. 4, 9) are slimmer, and bear narrower umbel rays in variable number. Each umbel usually consists of eight rays, but ten or twelve rays also occur. Finally, as in all species of *Hyalonema*, small amphidiscs with hemispherical many-rayed terminal umbels occur in great abundance. Some oxydiact marginalia were observed with smooth proximal, and shortly toothed, pointed, distal rays, while on the boundary between them, two or four rounded or slightly pointed tubercles projected (Pl. XXXIX. fig. 1).

In the South Atlantic, to the west of Tristan da Cunha (Station 333, lat. 35° 36′ S.,