

long. $21^{\circ} 12' W.$), from a depth of 2025 fathoms, and a Globigerina ooze bottom, a small irregularly torn fragment of *Hyalonema* was trawled. A small portion of the marginal fringe and of the superior sieve-plate was fortunately preserved. The parenchymal skeleton includes smooth, medium-sized oxyhexacts, smooth oxydiacts of various sizes, and small, somewhat roughened oxyhexacts, with straight rays. The hypodermal pentacts are strongly developed, of medium-size, and with smooth tangential rays, directed somewhat inwards. The autodermal pentact pinuli are slim and of moderate size. Their basal rays are rather long, and slightly spinose (Pl. XXXIX. figs. 13, 15).

The rather sparsely distributed larger amphidiscs of the skin are not very long (0.23 mm. and less), but with strong smooth axial rods and flatly arched, broad, short umbels, which consist of eight or seven broad paddle-shaped rays, pointed at the end like a Gothic arch (Pl. XXXIX. fig. 10). Medium-sized amphidiscs of similar structure are more abundant, while the small forms (Pl. XXXIX. fig. 11) with somewhat longer and more campanulate umbels also occur, and finally the familiar small amphidiscs with hemispherical umbels of ten to thirteen rays.

To the west of Luzon (Station 205, lat. $16^{\circ} 42' N.$, long. $119^{\circ} 22' E.$), from a depth of 1050 fathoms and a blue mud ground, a ragged fragment of a Hyalonematid was obtained, which is in many respects very divergent from the hitherto described forms of *Hyalonema*. It is improbable, in fact, that it belongs to the genus, but rather to a type not yet investigated. From the nut-like fragment obtained, it was, however, impossible to draw any definite conclusions as to original shape and size of the sponge, except that it was probably about the size of an average apple.

It is very remarkable that the supporting spicules of the parenchyma are exclusively long slim pliable oxytriacts, with two long rays lying in straight line, and a third much smaller disposed at right angles across the middle. Besides these, I have found only small oxydiacts and some oxytetracts, whose rays did not, however, lie in one plane. A large number of minute, very delicate oxyhexacts, with rather long, uniformly slender, straight rays also occur.

The dermal skeleton with its hypodermalia I have not been able to find, probably because of the absence of that layer. Autodermal or autogastral pinuli are, however, present in abundance. They are characterised by their medium-sized and somewhat bushy distal, and by the moderately long slender basal rays, which are somewhat thickened and toothed towards the end, though terminating in a sharp point. The amphidiscs vary greatly in size. Giants of 0.5 mm. occur, medium-sized forms one-third to one-fifth as large, and the ordinary small type. Most of the medium-sized amphidiscs have deeply campanulate terminal umbels with nine to four rays. I observed some large forms in which the opposite umbel rays had fused.