

of the upper surface of the thicker parenchyma of the body, and is also quite free from the four cruciate septa and the central pillar, though it may possibly have coalesced with the distal portions of the upper margins of the septa and with the end of the columella. From the four large principal cavities of the efferent system, ramified lacunæ and canals lead to the sides, and downwards into the recesses of the sponge, so that, as in *Hyalonema sieboldii*, the whole body-mass consists of a very wide-meshed system of plates.

The great majority of the spicules of the parenchyma are straight or slightly bent, smooth diacts, with or without central knot or swelling. Between these, smaller isolated regular oxyhexacts occur, with straight, smooth rays (Pl. XXVIII. fig. 8), and also somewhat larger oxyhexacts with bent rays (Pl. XXVIII. fig. 6). The representation of these forms in Pl. XXVIII. fig. 6 is so far unfortunate, since each of the two opposite triplets of rays should have the three ends of the rays approximated.

In the dermal skeleton the strongly developed hypodermal pentacts of different sizes, and with simple, smooth, somewhat pointed rays, are to be noted. The four tangential rays of the latter are equipped with numerous pentact pinuli exhibiting strong, short, slightly pointed or even blunted, smooth, straight basal rays, and exhibiting a strikingly long, well-developed distal ray, furnished with somewhat closely set teeth (Pl. XXVIII. fig. 7). The freely projecting, toothed distal rays attain the length of 1.3 mm. or more. The amphidiscs, which are present in considerable abundance, exhibit considerable varieties of form and size. Most of them are 0.13 mm. in length, and exhibit a long narrow axial rod with tubercles and frequently with larger cruciately disposed protuberances in the centre. The eight tolerably broad, lancet-shaped umbrellar rays attain a length of about a third of the whole amphidisc, and extend, with marked divergence, in an incurved but oblique outward course (Pl. XXVIII. fig. 3). In reference to this striking divergence of the umbrellar rays in the largest amphidiscs, I have bestowed on the species the title *Hyalonema divergens*. Among these amphidiscs disposed at right angles to the limiting surface, others of a very large size occur here and there. The latter attain a length of 0.5 mm., and have long umbrellar teeth curved into the form of a long ovoid. From the middle of the delicate axial rod, four somewhat long, cruciately disposed tubercles project. Among the numerous amphidiscs with curved umbrellar rays, medium-sized forms, 0.06 mm. in length, are also found, with knotted axial rods, and hemispherical arched umbels (Pl. XXVIII. fig. 4). Small forms are also abundantly present, measuring 0.03 to 0.04 mm. in length, and exhibiting short, hemispherical terminal discs (Pl. XXVIII. fig. 5). These smaller and smallest amphidiscs are not disposed at right angles to the surface, but lie tangentially in the dermal membrane.

The marginalia are long narrow diacts 2.2 mm. in length, with simple, smooth, or only inferiorly roughened surfaces. The proximal ray is uniformly narrowed and runs out to