

upper terminal surface is covered by a terminal sieve membrane lying flatly over the parenchyma of the body. Round about this sieve-plate, on the somewhat sharp lateral margin, an inconspicuous circular fringe of spicules projects. On the lateral surface of the cone, remnants of the delicate dermal lattice-work are here and there recognisable (Pl. XXXIII. fig. 8), and through the latter large grooves and inhalent apertures are visible.

The parenchyma is supported by medium-sized smooth oxyhexacts and by numerous thin and pliable oxydiacts of various sizes, with or without central swelling. More rarely diacts occur with one or two club-shaped swollen ends. Straight, smooth, small oxyhexacts occur in moderate abundance.

The dermal skeleton consists of medium-sized smooth hypodermal oxypentacts. The autodermal pentact pinuli are relatively long (about 0.4 mm.), and bear four slim medium-sized basal rays, and a distal beset with somewhat long spines (Pl. XXXIII. fig. 15).

The superior sieve-network is supported by reticulate strands of strongly developed, moderately long, smooth oxydiacts, which, as a rule, exhibit at the middle only two hemispherical or flatly apposed nodes. Between these, simple, strong, smooth oxytetracts occur here and there, and also pentacts with rays of a similar character. The autodermal pentact pinuli of this terminal sieve-plate are, for the most part, like the dermal, though in some regions longer (Pl. XXXIII. fig. 14).

Since the abundant amphidiscs of the external skin and those of the terminal sieve-membrane are exactly alike, I will describe them for both localities at once. Most striking is the largest form (about 0.2 mm. long), which exhibits a strongly developed axial rod, smooth with the exception of four cruciately disposed central protuberances, and with very gently arched terminal umbel rays, extending only over about one-third of a sphere, and provided with eight teeth. These short umbel rays are very broad, and terminate in a paddle or leaf-like point (Pl. XXXIII. fig. 9). Besides these, amphidiscs of medium size occur with irregularly toothed axial rods, and with terminal umbels, hemispherical or longer, with eight slender rays (Pl. XXXIII. fig. 11). Similar forms sometimes occur with longer and more divergent umbel rays (Pl. XXXIII. fig. 12). As in almost all species of *Hyalonema* numerous small many-rayed amphidiscs occur, as figured in Pl. XXXIII. fig. 13.

The marginalia exhibit a long toothed distal ray, a smooth proximal, and four cruciate hemispherical rudiments of the tangentials.

The spicules of the isolated basal tuft, which was found beside the body of the sponge, and most probably belongs to it, exhibit on their inferior extremity a very remarkable anchor-like structure. On the somewhat thickened terminal portion, four twisted, strongly developed rays project transversely in a circle, and then bend upwards at right angles along the equally long terminal portion. The latter portion is somewhat curved, and runs gradually to a point (Pl. XXXIII. fig. 10). On the prolongation of the axis there