

between these there are pit-like depressions of irregular form (Pl. CII. fig. 1). The summit of each of these projecting knots generally bears the aperture (0.5 to 1 mm. in breadth) of an efferent canal. Similar apertures occur in varying abundance between the nodes. The firm basal portion of the specimen is quite destitute of soft parts for a distance of 2 to 3 cm., and must have been quite dead for some time (Pl. CII. fig. 1).

These projecting ridges above referred to are readily brought into relation with the macerated skeletal structure exhibited by the lower portion of the other specimen (Pl. CII. fig. 2). This fragment shows very distinctly that on the outer convex surface there is a reticulate framework, enclosing long, oval or angular meshes, and composed of beams which lie parallel to the smooth arched surface. Internally there lies a system of approximately parallel, or rather somewhat fan-shaped divergent longitudinal ridges which measure 1 to 2 mm. in breadth, and now and again divide. Between these there are longitudinally disposed canals of equal breadth, which are covered internally by a layer of beams for the most part transverse. From this latter layer numerous round perforate swellings and internally open tubes project into the interior.

The round excurrent apertures of the efferent canal system, which measure about 2 to 3 mm. in width, are disposed in longitudinal and transverse rows intersecting at right angles (Pl. CII. fig. 1).

From the macerated skeleton, or better still, from longitudinal and transverse sections of the whole body, it is clear that the latter consists of a much folded plate 2 to 2.5 mm. in thickness, in which the bounding surfaces are formed by the sieve-like dermal and gastral membrane, while between these the much folded chamber layer is supported by means of the familiar trabecular framework (Pl. CII. fig. 3). Many of the entrance apertures of the afferent canals are closed by a second external membrane split off from the dermal. In its peripheral portion this membrane is supported by the subdermal trabecular framework, but is subsequently quite freely expanded (Pl. CII. fig. 3).

The dictyonal framework, which penetrates throughout the entire sponge body, consists of moderately large simple hexacts which are soldered together, or occasionally connected by synapticula in an irregular fashion.

Only in a few regions, and especially in the neighbourhood of the dermal surface, have the dictyonal hexacts the typical form with straight rays disposed at right angles to one another, on which account I had formerly referred this genus to the Dictyonina.¹ But they are usually curved and elongated in very various ways (Pl. CII. fig. 3), so that an intersection and fusion of the rays of adjacent hexacts may occur at very various angles, and the dictyonal framework in fact resembles rather the skeletal framework of several Lyssacina than the ordinary type of Dictyonina. The whole skeletal beam is uniformly thick and cylindrical, with numerous irregularly scattered, minute pointed spines (Pl. CII. fig. 3).

¹ Über den Bau und das System der Hexactinelliden, *Abhandl. d. k. Preuss. Akad. Berlin*, 1886, p. 80.