

In the parenchyma harpoons directed at right angles to the surface and hexasters of various kinds occur in addition to simple hexacts.

1. *Eurete semperi*, n. sp. (Pl. LXXVII.).

Near the Little Ki Island (Station 192, lat. $5^{\circ} 49' 15''$ S., long. $132^{\circ} 14' 15''$ E.), from a depth of 140 fathoms and a blue mud ground, the trawl brought up, among numerous other Hexactinellids, that form of *Eurete* represented in Pl. LXXVII. fig. 1. It was abundantly beset with small *Actiniæ* and exhibited in spirit a dull light grey colour. Several solid basal pedestals, 5 to 8 mm. in diameter, partly united in a common basal plate, bear a system of irregular reticulated and anastomosing tubes, 8 to 15 mm. in diameter, and 1 to 2 mm. in wall's thickness. The free end is unfortunately broken off, or more or less seriously injured.

The basal pedestals are dead up to a level of about 10 mm., otherwise the stock is tolerably well preserved. The strongly developed, somewhat irregular, dictyonal framework, which only rarely exhibits square or rectangular meshes, consists of strong beams beset with a few small spines, and united in thickened, spherical, swollen nodes of intersection more or less thickly covered with strongly developed but low-set teeth (Pl. LXXVII. fig. 2). The freely projecting spherical spinose bosses on the dermal and gastral surfaces are remarkably short and stunted. In the inferior regions of the stock the meshes of the dictyonal framework are very much narrowed by numerous small apposed hexacts, which, becoming thickened and united all round, contribute to strengthening the already existing framework. The result is the formation of a firm, stony, finely porous mass. Superiorly, however, the meshes become wider. Afferent canals traversing the wall at right angles to the surface, and corresponding efferent canals are seen in the dictyonal framework as round passages which run alternately from the outer and the inner bounding surface, and either end blindly or divide into lateral twigs. The thicker the wall of the tube, the more is the canalicular system developed within the dictyonal skeleton. The free parenchymalia are represented especially by small simple regular oxyhexacts, present in extraordinary abundance, and thickly beset in every region with minute pointed tubercles, so that they appear rough even under low power (Pl. LXXVII. fig. 7). In almost any region of the dictyonal framework they become readily fused to a ray perpendicular to the surface of the framework, or to one of the thick nodes of intersection (Pl. LXXVII. fig. 8). There they become thickened by the apposition of concentric siliceous lamellæ and also unite with other adjacent strands, thus leading to the growth and thickening of the whole dictyonal skeleton. The size of these rough hexacts varies greatly, but they rarely exceed 0.17 mm. in diameter.

The uncinates, which are always disposed at right angles to the bounding surfaces,