13). Oxyhexasters, with long pointed terminal rays, rarely occur[1] (Pl. XCIV. fig. 10). The structure of the soft parts does not essentially differ from that observed in the Euretidæ. The few specimens of this form were trawled near the Little Ki island (Station 192, lat. 5° 49′ 15″ S., long 132° 14′ 15″ E.), from a depth of 140 fathoms, and a blue mud ground.

3. *Hexactinella ventilabrum*, Carter (Pl. XCVI.).

The elegant simple cup represented on Pl. XCVI. figs. 1, 2 (measuring 8 cm. in height and 12·5 in greatest breadth), belongs to the collection of Hexactinellida which was made by Dr. Döderlein in Enoshima, Japan. From a base about the size of a half-crown, a strong, laterally-compressed stalk, 3 cm. in breadth and 1 cm. in thickness arises, and this is continued into the somewhat bent body, which is compressed in the same direction. This somewhat resembles a boat, and its cavity exhibits the openings of a row of twelve branching canals of approximately equal width. The circular openings measure from 2 to 4 mm. in diameter (Pl. XCVI. fig. 2).

Since the dermal and gastral skin in this dried specimen are only preserved here and there in small remnants, the coarser structure of the dictyonal framework can be recognised without further trouble. As in *Hexactinella lata*, the free outer margins of the radially and longitudinally disposed, reticulate, fibrous plates (1 mm. in breadth), distinctly project on the external dermal surface, while on the gastral surface of the cup they are covered by the evenly expanded fibrous network. Instead, therefore, of clefts 1 mm. in breadth, only round pores of equal breadth occur on the inner surface. The meshes of the dictyonal network of fibres appear in many places to be almost regularly square, although the longitudinal fibrous strands frequently run not quite parallel to the bounding surface, but in arched bundles from the middle layer of the wall, and diverge slightly towards the free outer and inner surfaces, so that their extremities project freely on the surfaces. The beams of the fibrous network are irregularly, and more or less abundantly beset with low knobs. The dermal skeleton includes strong pentacts like those in the skin of *Hexactinella tubulosa* and *Hexactinella lata*, also strong, four-toothed scopulæ, and numerous fine spicules which are pointed at both ends. Constituent elements of exactly the same character are to be found in the gastral skeleton.

The parenchyma contains minute, rough rods, with pointed extremities, which correspond somewhat to the uncinates. There are also oxyhexasters, with tolerably long, diverging, terminal rays (Pl. XCVI. fig. 8), further, discohexasters with long basal principals, and numerous short (externally slightly convex) terminal rays (Pl. XCVI. fig. 5), and finally, discohexasters with short basal principals, and a few (three to five) straight or S-shaped, tolerably long terminal rays (Pl. XCVI. fig. 4).

[1] The spicules figured on Pl. XCIV. figs. 11, 12, seem to have come in accidentally, and were not found on careful re-examination.