

Crateromorpha meyeri, and was first described by Carter.¹ The approximately round stalk, which was as long and as thick as one's finger, and connected by a trumpet-like expansion with the "cup- or goblet-shaped body," was found by Carter to be perforated by a large number (twelve) of longitudinal canals "which open into the vents of the bottom of the cup where the stem joins the latter." At the lower end the stalk was expanded and adapted for fixing the sponge to the sandy bottom of the sea. The margin at the brim of the cup was extremely thin, but the wall became thicker towards the base. The principal forms of spicules which Carter found in the goblet-shaped body were "(1) straight, fusiform spicules terminally swollen and spinose, also more or less swollen and smooth in the centre, where the central canal has a hexradiate cross, opposite to the ends of which two or four tubercles may occur. These spicules form bundles crossing one another at right angles, or approximately so, and thus support the dermal network. (2) Nail-like or cruciate spicules, in which the arms are smooth, straight and pointed, the shaft a little longer than the rest, also occur somewhat sparsely. (3) Minute smooth hexradiate spicules, in which each arm of the cross, just after leaving the centre, divides into two long divergent spines, are present in myriads. (4) In the pore-bearing area cruciate spicules occur, in which the arms, arising at right angles from the centre, are more or less expanded at the ends and spinose throughout. (5) The stem contains, in addition to the rod-like spicules forming a woolly mass, large, smooth, thick spicules, four-twelfths of an inch in length, accrate and swollen at both ends. These occur distributed longitudinally over the surface of the stem."

Gray² repeats Carter's description in somewhat different language, and establishes on the strength of this specimen the family Crateromorphidæ with the following characteristic:—"Sponge cup-shaped, attached by an elongated pedicel formed of numerous short spicules. Body of sponge covered externally with hexradiate spicules, the outer ray of which is aborted, placed in longitudinal and transverse lines, making a square mesh; hollow with large oscules which diminish in size as they reach the margin of the cup. Stem formed of numerous cylindrical tubes situated in a spiculous felt, ending in a bunch of filaments sunk in the mud."

In 1876, Marshall³ gave the following diagnosis of the genus:—"Polyzoic, with pseudogaster (?) of beaker form, outer side of the beaker-like cup perforated by cylindrical spaces (the stomachic cavities?), others of the same kind running longitudinally to spaces in the base of the cup. In the internal skeleton the hexradiate forms of spicules disappear, and uniaxial forms occur. Body cavities covered by peculiar small hexradiate spicules with bifurcated rays (?). Dermal skeleton of five-rayed spicules. No proper root-tuft. Rosettes with numerous secondary knobbed rays."

Crateromorpha meyeri is regarded by him as a pollakid Hexactinellid which has

¹ *Ann. and Mag. Nat. Hist.*, ser. 4, vol. x. p. 112.

² *Ann. and Mag. Nat. Hist.*, ser. 4, vol. x. pp. 136-137.

³ *Zeitschr. f. wiss. Zool.*, Bd. xxvii. p. 126.