

degenerated in several points, as may be seen in the preponderance of uniaxial spicules, and also in the absence of a special root-tuft.

*Character of the Genus.*—The somewhat thick-walled cup- or bowl-shaped body is firmly attached to the substratum by means of a more or less long and compact cylindrical stalk. The sharpened circular oscular margin usually bears a membranous, perpendicular, annular fringe, though occasionally naked. The external surface appears smooth and sometimes meshed. On the internal surface the numerous efferent canals open, through roundish apertures of variable size, directly into the large gastral cavity. The parenchyma includes oxyhexasters and discohexasters of variable form and size. The dermal membrane contains small rough tetracts and pentacts, and sometimes also diacts, which are blunted terminally or thickened in club-shaped fashion. The gastral membrane contains roughened pentacts.

1. *Crateromorpha meyeri*, Gray (Pl. LXI.).

Near Zebu, Philippine Islands (Station 209), from a depth of 95 fathoms and a blue mud ground, several well-preserved specimens of *Crateromorpha meyeri* were obtained.

The sponges are 10 to 12 cm. in height, and of a beautiful wine-glass-like form. An irregular expansion (basal plate) attaches the sponge to the firm substratum, and the cylindrical stalk, about 5 cm. in length and about as thick as one's little finger, is continued through a trumpet-like enlargement into a widely open bulging cup, about 5 cm. in breadth. The wall of this cup is inferiorly about 2 cm. in thickness, but becomes narrower upwards and finally ends in a delicate, thin, transparent, straight or slightly outwardly curved lamellar fringe, with a sharp edge, which measures 4 mm. in height, and about 0.5 mm. in thickness. The external dermal surface of the whole sponge is smooth, but through the fine rectangular lattice-work of the dermal membrane the irregular roundish cavities of the afferent canals may be seen (Pl. LXI. fig. 1). On the much firmer internal surface there are numerous roundish openings of varying width. These belong to the efferent canals. The smaller apertures in the neighbourhood of the lattice-work are still covered by the gastral membrane, but the larger open freely. Inferiorly the openings of the efferent system of canals become larger, so that finally, at the foot of the gastral cavity, only more or less narrow septa remain between them. (Pl. LXI. fig. 2). The larger septa extend radially from the centre towards the lateral wall, and produce a radially symmetrical division into four, which recalls a similar condition in species of *Hyalonema*. In longitudinal sections the relation of the afferent and efferent canals is very distinctly seen, and between them the much folded layer of ciliated chambers (Pl. LXI. figs. 2, 3).

In Pl. LXI. fig. 1 an attempt is made to reproduce the peculiar grey-yellow colour,