

Hexactinellids, the beautiful stalked form represented in Pl. LXIII. fig. 1. The cup measured 12 cm. in height, and as much in maximum breadth—at the circular superior opening of the somewhat depressed and yet bell-shaped body. This form I have named *Crateromorpha murrayi* in honour of my much esteemed friend John Murray. The tubular stalk, which is broken off inferiorly, has a parietal thickness of 3 mm., and a diameter of 2.5 cm. Just beyond the trumpet-shaped expansion, where the stalk joins the body, the latter exhibits a rounded boss-like protrusion (1.5 cm. in length), directed outwards and upwards. The external surface of the body and of the stalk is smooth, and covered by a fine quadrate lattice-work, through which numerous roundish incurrent apertures are visible. The internal surface of the wide gastral cavity exhibits numerous round excurrent apertures of the efferent system of canals, which are small in the neighbourhood of the superior margin, but become gradually larger towards the base of the cup, and occur at last so close together, that a network of more or less slender septa protrudes between them into the gastral cavity.

The thickness of the body-wall is on an average between 2 to 3 cm., and decreases gradually upwards to the smooth sharp-edged margin, on which no distinct cuff-like fringe was discoverable.

Of the larger spicules of the parenchymal skeleton the most abundant are those slender diact forms which are beset at both ends with small pointed spines. The ends are thickened in club-shaped fashion, bluntly pointed, or less frequently simply rounded off. In the middle these spicules are in some cases smooth, while in others they exhibit the familiar annular swelling, or else four cruciate or two opposite hemispherical nodes. Beside these we have to note the occurrence—characteristic of the species—of thick diacts of medium length (2.5 to 4 cm.), which are curved in an Indian bow fashion, or else gently twisted in the middle. They are here especially well developed, attaining a thickness of 0.15 mm., and gradually decrease in diameter towards the extremities, where they end in blunt points (Pl. LXIII. fig. 4). The terminal portion may be smooth, as represented in Pl. LXIII. fig. 4, or laterally beset with numerous minute pointed spines.

There is in the parenchyma a remarkably sparse occurrence of large or medium-sized hexacts, an important item in distinguishing this species from the closely related *Crateromorpha thierfelderi*.

Between the large parenchymalia there is an abundant occurrence of oxyhexasters with short principal rays, and two to four long divergent terminals, which have either a perfectly straight course, or are somewhat curved terminally (Pl. LXIII. fig. 5). Less frequently, and especially in the neighbourhood of the gastral surface, another form of rosette is represented by small discohexasters, in which the somewhat short principal rays bear on their terminal transverse discs numerous fine terminals, which vary in length, and bear transversely on their extremities small convex toothed discs (Pl. LXIII. fig. 6).