

exhibited by these forms of *Crateromorpha*, and by the great majority of the spirit-preserved Hexactinellida here described. It is noteworthy that the marginal fringe which surrounds the superior circular opening (about 40 mm. in width) is not yellow, but usually white. The stalk also appears somewhat lighter in colour than the dark grey-yellow body-wall (Pl. LXI. fig. 1).

The main mass of spicules in the parenchyma of *Crateromorpha meyeri* consists, as in *Bathydorus* and *Rhabdocalyptus*, of long thin diacts, which are roughened terminally, and exhibit either rounded off or bluntly pointed extremities. Some spicules bear a distinct central thickening, or four cruciate, or less frequently two opposite hemispherical tubercles, while the others exhibit no trace of such structures. The diacts vary greatly in length and thickness, and are sometimes thickened terminally in a slightly club-shaped fashion. Less frequently they are gradually narrowed and finally terminate in points, while the middle portion is so thickened that the whole spicule acquires a spindle-shaped form. Between these diacts of various length, medium- and small-sized oxyhexacts occur in irregular distribution. In these the rays are frequently of considerable length, and are uniformly narrowed towards the extremity, finally terminating in a point.

There is an abundant occurrence of oxyhexasters with very short, sometimes almost aborted, principal rays, and long slender terminals, which are usually bent slightly outwards at the base, but are otherwise straight up to their pointed extremities. Each short principal bears two to four of these terminals. Less frequently, and chiefly on the subgastral trabecular space, small discohexasters occur, in which the moderately short principal rays are terminally expanded into a transverse disc. The convex surface of this disc bears a brush-like tuft of fine terminal rays, with toothed transverse discs on their extremities (Pl. LXI. fig. 7).

The dermal skeleton includes medium-sized hypodermal oxypentacts, with moderately long and strongly developed straight rays, which are roughened near the extremity, but are elsewhere smooth. The four tangential rays, which are cruciately disposed round a central node, are at first slightly expanded and decrease gradually in thickness towards the pointed ends. Besides these hypodermalia which do not always form a quadrate lattice-work with their tangential rays, a large number of small dermal pentacts occur, with rough straight rays, of approximately equal length, and frequently somewhat club-shaped at their extremities. The four tangentials intersecting at right angles are often inclined slightly inwards. From the point of intersection a knob-like tubercle sometimes projects outwards, representing the undeveloped external radial ray (Pl. LXI. fig. 10); it is, however, generally absent. Between these dermal pentacts, perfectly similar tetracts not unfrequently occur, in which the four rays, intersecting at right angles, are usually curved slightly inwards.

In the gastral skeleton, as in *Rhabdocalyptus*, there are no large hypogastralia. The autogastralia are all small rough pentacts, in which the straight rays are not club-