

The dermal skeleton is composed of medium-sized, strongly developed hypodermal pentacts, in which the smooth rays, gradually narrowed towards the extremity, are either simply conical or somewhat roughened and rounded at the tips. Besides these, the dermal membrane includes numerous tetracts and pentacts, and more rarely diacts, with central nodes. These dermalia correspond exactly to those of *Crateromorpha meyeri*. Their straight and rough rays intersect at right angles, and the ends are thickened in somewhat club-shaped fashion.

The gastralia, which form a connected layer lining the gastral cavity, resemble the dermalia, and consist, for the most part, of pentacts with small tubercles or bosses in the place of the sixth ray. Hexacts also occur, in which the projecting radial ray extends for a greater or less distance into the gastral cavity. The canalaria lining the inner surface of the wider efferent canals resemble those just described. The skeleton of the stalk does not essentially differ from that of the bell-shaped body.

#### 4. *Crateromorpha tumida*, n. sp. (Pl. LXVII.; Pl. LXVIII. fig. 2).

Near the Banda Islands (Station 194A, lat.  $4^{\circ} 31' S.$ , long.  $129^{\circ} 57' 20'' E.$ ), from a depth of 360 fathoms and a volcanic mud ground, the trawl brought up two specimens of a *Crateromorpha*, in which the very soft body proper has been badly preserved, and so much injured by subsequent friction during transport, that only a cloudy formless mass remains attached to the firm stalk. Fortunately a figure (Pl. LXVII. fig. 1) of one of the specimens had been previously made under Sir Wyville Thomson's direction, which shows at least the form of the body before it was so much damaged. The specimen measures 17 cm. in length. The cylindrical stalk is firmly attached to a compact basal plate, and from its thinnest portion, just above the basal plate (where it measures about 5 mm. in breadth), gradually increases in diameter on to the base of the body, where it attains a breadth of 20 mm. Where the smooth and firm stalk passes into the body, there is a trumpet-shaped expansion with projecting radial ridges and depressions between. The body proper measures 13 cm. in breadth by 8 cm. in height, it exhibits irregular lateral bulgings, and has on the whole the form of a broad cup with very thick walls and with sharp superior margin. The irregular undulating edge of the superior aperture is approximately circular and measures almost 10 cm. in diameter.

The irregularly ridged and furrowed external surface of the body is covered by the delicate lattice-work of the dermal membrane, through which one can see the numerous round lacunæ (1 to 4 mm. wide) of the afferent canal system. The somewhat firmer internal surface of the wide, almost hemispherical gastral cavity, exhibits in its upper marginal region comparatively small apertures of the efferent canal system, which become gradually larger, however, towards the lower surface. It is noteworthy, as a