

be with, or without lateral tubercles at the expanded end. Finally, I should mention that here and there small discohexasters occur with numerous terminal rays on the expanded ends of the principal rays, like the similar structures in *Rhabdocalyptus roeperi*, represented in Pl. LXV. fig. 4.

The gastral skeleton consists of strong, rough oxyhexacts, similar to those in the genus *Bathydorus*.

2. *Rhabdocalyptus roeperi*, n. sp. (Pl. LXV.).

To the south of Puerta Buono, in Patagonia (Station 310, lat. $51^{\circ} 27' 30''$ S., long. $74^{\circ} 3' W.$), from a depth of 400 fathoms and a blue mud ground, the trawl brought up a cup-shaped Hexactinellid, 16 cm. in length and 9.5 cm. in maximum breadth. The solid inferior portion of the sponge is contracted into a cylindrical stalk, 2.5 cm. in thickness. This stalk is bent to the side, as if to be attached to some solid body, but the rest has been unfortunately torn away. The somewhat bulging wall of the cup has a thickness of 8 mm. at the lower part, but decreases gradually towards the upper margin, and ends in a simple smooth margin, bent slightly outwards. The sharp, uniform, circular edge exhibits no projecting marginalia. Through the thin even lattice-work of the dermal membrane are seen the irregularly scattered, elongated, angular or spindle-shaped pits, from which roundish canals extend towards the centre. On the inner surface round sharply contoured depressions of various sizes occur, into the bottom of which the more or less wide excurrent canals of the efferent system open (Pl. LXV. fig. 1).

Besides this large specimen a small, flat, wide cup- or basin-like form was obtained at the same locality. It measured 2 cm. in maximum breadth and 1 cm. in height, but was also torn away from its connection, and exhibited only a torn base, 1.5 cm. in breadth. From this the side wall of the body, measuring about 2 mm. in thickness, arises, projecting obliquely upwards and outwards, and continued on to a smooth, circular, sharp-edged margin, measuring 2 cm. in diameter (Pl. LXV. fig. 2). In perpendicular cross sections through the wall of the cup one can readily detect the alternating afferent and efferent canals, and the folds of the chamber layer which extends between them.

The main portion of the parenchymal skeleton consists of long slender diacts with rough pointed or slightly club-shaped ends, with or without central nodes, like those which have been already so often described in this family (Pl. LXV. fig. 11). There is an isolated occurrence of small, weakly-developed oxyhexacts with fine straight rays (Pl. LXV. fig. 6), and a greater abundance of oxyhexasters with short, sometimes very short, principal rays, bearing long, diverging, straight or wavy, fine terminals (Pl. LXV. fig. 5). The number of terminals on each principal ray varies from two to three, while less frequently only one is present.

Not unfrequently the principal rays are so short that they can hardly be detected,