

The second specimen, which is not figured, has about the same size as the above, and resembled it exactly, though much looser in texture. Not only is the greater part of the body wanting, but the lower end of the conical, expanded, basal portion is quite gone. The region where the stalk passes into the body is somewhat broader than in the former specimen.

Genus 8. *Aulochone*, n. gen. (Pl. LXVI. ; Pl. LXVIII. figs. 1, 3-7).

A cylindrical cup is borne on a long tubular stalk. The oscular margin is folded outwards and backwards in such a way that a portion of the gastral surface has become part of the outer wall of the cylindrical body, while the other portion of the gastral wall surrounds the funnel-shaped gastral cavity, and is continued downwards into the membranous lining of the tubular sheath.

In this way the dermal membrane limits the body only on the inferior somewhat hollowed surface, where the cup is attached to the top of the stalk.

This concave, somewhat hollowed, inferior surface of the body exhibits a fine-meshed, quadratic dermal lattice-work, while the cylindrical external surface of the body and the internal funnel-shaped gastral surface exhibit the numerous large and small roundish openings of the efferent water canals.

The parenchyma contains, between the large diacts, numerous discohexasters with terminal rays of variable length. In the dermal and gastral membranes small rough pentacts have a preponderant or exclusive occurrence.

1. *Aulochone cylindrica*, n. sp. (Pl. LXVI. ; Pl. LXVIII. fig. 1).

A sponge form, strikingly different in external appearance from the *Crateromorpha* species just discussed, but nevertheless closely allied, as the character of the siliceous spicules plainly shows, was trawled to the north-east of the Kermadec Islands (Station 171, lat. 28° 33' S., long. 177° 50' W.), from a depth of 600 fathoms and a hard ground bottom. The sponge consisted, in the first place, of a broken stalk, about 4 mm. in diameter, and 2.5 cm. in present length, but probably much longer when intact. On this the body proper is seated, resembling the vertebral centrum of a bony fish in the infundibular concavity of its terminal surface, and in the cylindrical appearance of the sides (Pl. LXVI. fig. 4). The upper terminal surface is deeply concave in funnel-like fashion, and this funnel-like space is continued directly into the cylindrical tubular cavity formed by the upward prolongation of the stalk. The opposite inferior surface, on the other hand, is hollowed out only to the extent of forming a circular furrow, while the central portion is occupied by the trumpet-shaped connecting portion between stalk and body (Pl. LXVI. figs. 1, 2, 4). Nor is this broad annular furrow on the