

flat, and made up of a central \times -shaped rod with the arms connected so as to form a complete knobbed ring. In most cases a branched or unbranched rod, or an incomplete network covers the concave side of the cups. The cups are rounded or oval, with a diameter of about 0.08 mm. The buttons (Pl. VI. fig. 12*b*) are very solid, rounded or oval, with in most instances four holes and very large knobs; they are somewhat larger than the cups. A few buttons (Pl. VI. fig. 12*c*) are almost smooth without knobs. The supporting rods of the ambulacral appendages are usually perforated in each end and in the enlarged middle.

Colochirus inornatus, von Marenzeller, 1881 (Pl. VI. fig. 8).

Habitat.—Japan; depth, 8 to 50 fathoms; ten specimens.

All the specimens are highly contracted, with the tentacles retracted within the body, which presents a fusiform appearance. The mouth is closed by five valvular projections, and is in most of the individuals bent upwards. The perisome is rather hard and inflexible. The anal portion of the body is much more tapered and distinctly turned upwards. The anus is surrounded by five very minute teeth. The two ventral are much smaller than the eight remaining tentacles. All the ambulacral appendages, even the dorsal ones, are completely retractile, and distributed all over the body, whereby the surface of the latter acquires a punctated or finely pitted aspect. No dorsal processes or elevations of the body-wall, which are so characteristic of most of the representatives of the genus *Colochirus*, are visible. Only in one specimen does the dorsal surface show traces of some minute elevations.

The pedicels, which are marked out from the remaining minute ambulacral appendages or "papillæ" by a larger and more distinct sucking-disk, seem to be arranged in three longitudinal ventral series. Each series is broadest at its middle, and is there composed of about five pedicels in breadth, but it decreases towards the extremities, where the pedicels finally form a double row. Even the ventral narrow interambulacra are occupied by some scattered "papillæ" and pedicels, the three series being not quite distinctly marked. The "papillæ" are closely crowded all over the dorsal surface and over the anterior and posterior parts of the ventral surface, while they, on the contrary, are very thinly scattered on the middle of the ventral interambulacra.

The ventral surface is light, the dorsal, on the contrary, darker, with light spots at each papilla. A single madreporic canal and Polian vesicle are present. The three ventral pieces of the calcareous ring are considerably narrower than the rest. The ring is always devoid of any posterior processes. The retractor muscles are attached to the middle of the body.

The deposits present themselves under several different kinds. In the exterior layer of the perisome numerous irregular, reticulate, more or less complete, almost flat cups