

and small hemispheres (Pl. VI. fig. 9c) of about the same size as the smaller spheres, provided with spines round the rim and on the network which closes the openings of those half-spheres.

*Colochirus australis*, Ludwig, 1875 (Pl. XIV. figs. 5, 6 ; Pl. VI. fig. 6).

*Habitat*.—Port Jackson (Australia) ; 6 to 7 fathoms ; a single specimen.

Though the individual obtained during the Challenger Expedition deviates in some points from the types described by Ludwig, I do not hesitate to consider them as identical forms. The animal has a length of about 75 mm. Anteriorly and posteriorly the body is distinctly pentangular, but towards its middle the odd ambulacrum becomes less distinctly angular. The anal teeth are indistinct. The mouth is closed by the usual five valves. The colour is darkish brown, with five lighter longitudinal bands, of which the three corresponding to the ventral ambulacra are almost yellowish. The surface of the skin is rough, especially on the dorsum, where the scales are much larger.

The dorsal tubercles or processes are small and not very prominent, some of them being of minute size. They are to be found only on the ambulacra, where they form a double row anteriorly but are situated in a zigzag line towards the posterior extremity of the body. The pedicels are arranged in a distinct double row along each ventral ambulacrum. The base of each pedicel is surrounded by a crown of small prominent scales (Pl. VI. fig. 6d), and the dorsal tubercles seem also to be formed by such scales, in the middle of which the dorsal ambulacral appendages are situated.

The scales are much larger in the dorsal perisome, especially along the ambulacra, where they form longitudinal series. The largest scales have a diameter of about 4 mm. Besides these deposits, numerous more or less irregularly formed, knobbed buttons (Pl. VI. fig. 6a), and scattered reticulate hemispheres (Pl. VI. fig. 6b), are to be found. Among the larger buttons, several more finely constructed smaller ones are seen. The pedicels have perforated rods and terminal supporting plates. A single Polian vesicle and madreporic canal are present. The three ventral pieces of the calcareous ring are narrower than the rest.

*Colochirus pygmaeus*, n. sp. (Pl. IV. fig. 9).

Body elongate, decreasing posteriorly into a narrower caudal portion, quadrangular or rather pentangular. Mouth closed by five projections or valves. Anal portion of the body without visible scales and teeth. Ventral surface with three distinct series of pedicels, each composed of a double row ; anteriorly and posteriorly the pedicels are converted into conical non-retractile processes of about the same size as the pedicels, but