

The outer extremities of the actino-lateral spines are not pointed, but rounded; and the web tissue is scarcely indented. Owing to the abnormal growth both of spines and tissues in the interbrachial arc, and the tension produced thereby, the majority of the spines at the extremity of the ray are made to radiate inward towards the angle, and the web appears considerably stretched.

Colour in alcohol, yellowish grey.

Locality.—Station 325. Off the coast of South America, east of Buenos Ayres. March 2, 1876. Lat. $36^{\circ} 44' 0''$ S., long. $46^{\circ} 16' 0''$ W. Depth 2650 fathoms. Blue mud. Bottom temperature $32^{\circ} \cdot 7$ Fahr.; surface temperature $70^{\circ} \cdot 8$ Fahr.

Remarks.—This species is characterised by the peculiar parchment-like appearance of the supradorsal membrane; and may be recognised by the presence of only a single spine in the adambulacral armature and by having very small spiracula, which are arranged in groups and irregularly distributed.

4. *Hymenaster sacculatus*, Sladen (Pl. LXXXV. figs. 1-3; Pl. LXXXVI. figs. 7-9).

Hymenaster sacculatus, Sladen, 1882, Journ. Linn. Soc. Lond. (Zool.), vol. xvi. p. 217.

Marginal contour stellato-pentagonoid; interbrachial indentations small; rays usually recurved abactinally, making the abactinal area deeply concave, the actinal being convex. Minor radial proportion 66.6 per cent. $R = 42$ mm.; $r = 28$ mm. Rays tapering somewhat sharply at the extremities; marginal fringe distinct and well developed.

The supradorsal membrane is thick and coriaceous in appearance. The papillæ are numerous, and have crowns with rarely more than four or five spinelets, which are prominently protrusive of the membrane—that portion lying between the tips of each individual crown being thick, devoid of spiracula, and forming a slightly distended saccular area. Thick bands of tissue, with fibres, radiate between the crowns, and the narrow interspaces are occupied by numerous small spiracula, generally three or four, or even more, in line together, separated only by very fine, thin dissepiments. The oscular orifice is large; the valves, five in number, are regular, and form when closed a compact exactly fitted pyramid, which rises as a small cone in the centre of the concave abactinal area. The spinelets of the valves are of moderate length, thickly webbed, and with numerous spiracula in the interspaces.

The ambulacral furrows are moderately wide and very uniform in breadth, except towards the extremity, where they taper rapidly, and near the mouth, where they are also somewhat constricted. The armature of the adambulacral plates consists of two spines of moderate length, but with a very long sacculate investing membrane, the pairs standing slightly oblique to the median line of the ray. The aperture-papillæ are large, thickly invested, subspatulate, and slightly constricted near the outer third.

The mouth-plates are elongate, largely keeled, prominent aborally, and each plate