

secondary or superficial mouth-spines, which are longer than the mouth-spines proper; the most aboral is the longer and stands at about one-third of the distance from the adoral extremity of the plate; the second is smaller and is placed close behind the marginal series of mouth-spines. All these spinelets, both mouth-spines proper and secondaries, are covered with membranous sheaths, which in the case of the large aboral secondary spines are widely expanded at the base. The mouth-spines are united by a membranous web, but there is no connection between the armature of the two united plates.

The actinostome is large, occupying nearly two-fifths of the actinal surface of the disk, the mouth-plates consequently could not be apposed, and the mouth is situated in the centre of a naked leathery membrane, and is furnished with a well-developed muscular lip, the delicate and regular plications of which give a very elegant appearance to this structure. Near the margin of the actinostome the membrane is semitransparent, and the internal viscera may be indistinctly traced through it.

The dorso-central valves when closed form as a whole an externally subcircular button from 6 to 7 mm. in diameter. The valves are triangular and composed of delicate spinelets, a dozen or more in each, united together by membranous web. The spinelets decrease in length regularly from the central ones in each fan-like valve; and the membrane is gracefully festooned between the extremities of the spines. Externally there is an abrupt flexure of the fan at its base, which gives the button-like character to the apparatus already noticed. Some vesicular protuberances are visible through the spaces left between adjacent valves, but I am unable, without an undesirable mutilation of the specimen, to offer any positive observation as to whether these valves open into a definite infradermal cavity; my impression is that such a cavity does not exist in this form. A protuberant anal membrane appears to be traceable.

The madreporiform body is moderately large and situated in the interradial sulcus, external but close to the dorso-central valves; the striations are numerous but rather coarse, and radiate with considerable regularity from the centre.

The ambulacral tube-feet are large and regularly biserial. They are furnished with a large fleshy sucker-disk, which, when viewed laterally, is seen to be of greater diameter than the immediately adjoining part of the tube, and from which it is marked off by a well-defined constriction. The sucker-disk has consequently the character of a button-like extremity; and in the centre there is a conspicuous invaginated depression.

Colour in alcohol, a uniform yellowish ashy grey.

*Locality*.—Station 323. Off the coast of South America, east of Buenos Ayres. February 28, 1876. Lat. 35° 39' 0" S., long. 50° 47' 0" W. Depth 1900 fathoms. Blue mud. Bottom temperature 33°·1 Fahr.; surface temperature 73°·5 Fahr.