

spinous, often with four larger teeth. Colour in alcohol, whitish, inclining to violet or rose. Length of the largest specimen, 140 to 150 mm.

Habitat.—Station 306A, January 2, 1876; lat. $48^{\circ} 27'$ S., long. $74^{\circ} 30'$ W.; depth, 345 fathoms; bottom temperature, $46^{\circ} 0'$; blue mud; four specimens. Station 308, January 5, 1876; lat. $50^{\circ} 8' 30''$ S., long. $74^{\circ} 41'$ W.; depth, 175 fathoms; blue mud; two specimens. Station 311, January 11, 1876; lat. $52^{\circ} 45' 30''$ S., long. $73^{\circ} 46'$ W.; depth, 245 fathoms; bottom temperature, $46^{\circ} 0'$; blue mud; several specimens.

When the animal is fully extended, the body-wall does not seem to present any particular thickness along the sides of the body. The dorsal papillæ, which are placed in a narrow double row only on the dorsal ambulacra, are narrow, elongated, conical, and up to 5 mm. long. This arrangement in double rows is far more distinct in the specimens obtained at Station 311. The position of the pedicels is also more easy to distinguish in the specimens just mentioned. When the body is contracted, the three series of pedicels seem to be considerably broader. The slightly darker sucking-disks measure about 1 mm. in diameter. The warts, which are present on the two lateral dorsal interambulacra as well as on the ventral surface, do not form any rows; they are low, of a whitish colour, and mostly attain a greater diameter than the sucking-disks of the pedicels; at first sight one is tempted to consider them as disks of large retracted pedicels, but a closer examination shows the falsity of this supposition. The pedicels are strengthened by a large perforated terminal plate, surrounded by a few small, oblong, perforated, irregular plates and spinous, slightly curved rods. The pedicels also contain numerous tables in a more or less deformed state. The warts bear some tables near their base, but I cannot find any other deposits in them; they resemble large, flattened disks of pedicels without supporting rods and terminal plates. The papillæ bear at their top a very rudimentary terminal plate, consisting of an irregularly branched network, surrounded by a few transverse slightly spinous rods; crowded tables fill up the rest of the integument of the papillæ. The exact number of tentacles is not fully stated; in one individual I counted seventeen. The retractor muscles are, of course, absent, and the longitudinal muscular bands simple.

The shape of the deposits will be best understood from the figures (Pl. X. figs. 19, 20). The diameter of the disk is about 0.17 mm., and the length of the spire 0.064 mm. The spire, especially in the pedicels and papillæ, often terminates in four teeth, and the complete though irregularly perforated disks are also more frequent in these positions.

The animals seem to lack the calcareous ring. A single Polian vesicle, 16 mm. long, is present. The dorsal madreporic canal is attached to the dorsal mesentery. A bundle of slender, slightly branched genital tubes is situated on each side of the dorsal mesentery. Two respiratory trees run out from a common base, and neither of them has any more intimate connection with the pseudhæmal vessel system.

In one of the more complete specimens obtained at Station 311, I have observed some