

and the surface presents a finely papillate appearance. A few comparatively large isolated pedicellariæ are present here and there on the general membrane amongst the spinelets. On the outer part of the ovarian region the spinelets cease and their place is taken by pedicellariæ. Beyond this region the ray is covered with a delicate semitransparent membrane, upon which transverse saddle-like saccular bands are borne, crowded with very minute pedicellariæ. The bands extend from one margin of the ray to the other, and are broad and uninterrupted across the median keel of the ray. The breadth of the bands is normally greater than that of the interspaces; they are usually more or less expanded near the margin, and frequently the band there is bent sharply at a right angle and may be prolonged so as to merge into the next succeeding band, and sometimes quite a series are thus united by a longitudinal band running parallel to the margin, especially on the proximal part of the ray. The bands, normally correspond to the ambulacral segments of the ray and usually cross the "vertebræ," as seen in the median keel, between the adoral and aboral extremities; their position, however, in this respect is not constant by any means, as they may cross at all intermediate positions, and sometimes pass over the suture uniting two succeeding "vertebræ;" sometimes two succeeding bands are united by a longitudinal prolongation close to the keel, and sometimes a band commencing at one margin of the ray crosses the keel, and then stops abruptly, leaving the other side of the segment without a sacculus.

The ambulacral furrow is of great width, and measures 3.5 mm. at a place where the ray is 5.7 mm. (53 mm. from the disk). The adambulacral plates are slightly longer than broad, measuring 1.75 mm. at about 53 mm. from the disk, and they form a narrow margin to the furrow. The furrow-margin of the plate is slightly incurved. The adambulacral armature consists of:—(1.) a small inner spinelet directed horizontally over the furrow; (2.) an elongate spine articulated on the actinal surface of the plate and standing perpendicularly or directed outwards; and (3.) a lateral spine of great length and delicacy borne on alternate plates only. The small inner spine is attached to the extreme aboral end of the furrow-margin of the plate and lies quite within the furrow, across which it is directed horizontally and slightly forwards; it is about 2 mm. in length, and is of a remarkable shape, being flaring and fan-like in form, and covered with a delicate, semitransparent membrane, more or less saccular, and upon which three or four large isolated pedicellariæ are borne. The plane of the flattened surface is vertical and perpendicular to the axis of the ray. The actinal spines are about 7 mm. in length at 50 mm. from the disk, and are articulated on a tubercle situated on the actinal surface of the plate close to its aboral end; they are encased in a delicate, semitransparent membranous sheath crowded with great numbers of very minute pedicellariæ, and with a saccular prolongation at the tip. On the inner part of the ray, for about 40 mm. from the disk, these spines are slightly expanded at the tip, but still remain cylindrical, and are truncate and often calicular; the membranous sheath does not cover this flaring tip, but terminates beneath