

than two-thirds its length, stands close to the lateral spine on the inner side, and is likewise articulated on a tubercle. The surface of the plate is covered with membrane, and there are a few widely spaced miliary thornlets on the vacant areas on each side of the spines. On the inner part of the ray, and especially on the innermost plates in the interbrachial arc, these assume the form of short, cylindrical, obtusely tipped spinelets. Occasionally also one of these near the base of the second lateral spine is longer than the rest, and then simulates a third (but very small) member of the infero-marginal armature.

In the median interradian line is a large and broad odd infero-marginal plate, corresponding to the odd supero-marginal plate. Its position is vertical, and this plate as well as the two next plates on either side bear no large lateral spines, but only two or three short aborted cylindrical spinelets and a few miliary spinelets or thornlets.

Between each successive infero-marginal plate is a rather large pedicellarian apparatus, at least along two-thirds the length of the ray; these are of the double comb or spiracle form, and consist of five or six short tapering spinelets borne on each of the adjacent plates, the two series being opposed to one another, and closing over the intervening cavity. The apparatus occupies nearly the whole of the vertical margins of the plates and comes close to the actinal margin.

The ambulacral plates are large, broad, and well-spaced, the breadth being slightly greater than the length. There is a small semicircular prominence into the furrow; and the armature consists of:—(1.) a furrow series of six to eight very small, short, cylindrical, obtusely tipped spinelets, all equal excepting the outermost at each end of the series, which are rather shorter. All are placed close together, and form a compact semicircular comb, the spinelets, when directed vertically, standing parallel to one another, and when directed over the furrow, radiating slightly apart. The successive combs are well spaced apart. (2.) On the actinal surface of the plate are three comparatively elongate, cylindrical, obtusely tipped spinelets, placed one behind the other in an oblique line, the outermost being usually smaller than the others, sometimes wanting, sometimes irregularly placed, and absent at the extremity of the ray. The longest of these spines is about 2.5 mm.; the marginal series not exceeding 1 mm. in length. No other spines or thornlets are present on the plate, and its surface is covered with membrane.

The ambulacral furrow is widely open, and the tube-feet are large, conical, and with a small knob-like termination.

The mouth-plates are large, prominent and convex actinally, the united pair being broad, with a flattened semicircular margin towards the actinostome. Their armature consists of a marginal series of six or seven mouth-spines on each plate, the innermost one being twice or three times the length and robustness of the others, which are subequal, all being cylindrical and obtusely tipped. On the actinal surface of the plate are three short, cylindrical, obtusely tipped spinelets, rather smaller than the actinal spines on the