

rounded angle a single, short, cylindrical, tapering, sharply pointed spine, about the same size as the supero-marginal spine, directed at an angle outward and towards the extremity. The surface of the plate is covered with short papilliform granules, similar to those on the supero-marginal plates, which, however, become slightly larger and more widely spaced on the median part of the actinal area. They are crowded at the adoral and aboral margins, and a few at the base of the lateral spine are definitely spiniform. All are invested with delicate membrane.

The adambulacral plates are long and narrow, and their length is such that they frequently appear to be correspondent to the infero-marginal plates; but careful examination soon shows that this is merely deceptive. The furrow margin is straight. The armature consists of:—(1.) A furrow series of ten small, moderately elongate spinelets, slightly curved, with convexity towards the furrow, compressed laterally, and of nearly uniform breadth throughout, the tip being rounded, and their character is in consequence decidedly lamelliform. The outer spine at each extremity of the series is rather smaller than the others, which are subequal, and measure about 2.25 mm. in length, or slightly more on the innermost plates of the ray. The spines stand parallel and touch one another, forming a straight compact comb, and are invested with membrane. (2.) On the actinal surface of the plate, and immediately behind the furrow series, is a parallel series of five or six short, cylindrical, papilliform spinelets, shorter than the furrow series and rather wide apart; and external to this series, or sometimes forming one of it, is a cylindrical and very slightly tapering spinelet about 4 mm. in length, sometimes even a trifle more—consequently a very conspicuous feature in the armature. Its position is generally rather nearer the aboral end than midway on the plate. There are seven or eight very small, equal, papilliform spinelets along the outer margin of the plate, and sometimes an incomplete series between this outer series and the series next the furrow spines. All the small spinelets, however, upon the actinal surface of the plate, are more or less irregular in their disposition, and this is especially noticeable in the inner part of the ray. No pedicellariæ are present; the surface of the plate is covered with membrane, and each of the papillæ is also thinly invested.

The mouth-plates are large, and the united pair are convex actinally and extend prominently towards the actinostome. Their armature consists of a marginal series of fifteen or sixteen short spinelets on each plate, similar in character to the furrow series on the adambulacral plates, but which become more cylindrical and papilliform on the outer part of the series. One or two of the innermost mouth-spines are a little longer than the rest, and these decrease slightly as they recede from the mouth. The actinal surface of the plate is covered with numerous, short, papilliform spinelets, amongst which no order of arrangement is discernible; they are subequal in length, excepting about four at the extreme inner end of the mouth-angle, immediately behind the marginal series, to which they are nearly equal in length; and a second series of four or five behind these,