

rays flat and level. Actinal surface of disk very prominent at the mouth-angles, and sloping thence to the margin and along the rays.

The paxillæ of the abactinal area are moderately large, numerous, and usually well-defined, consisting of eight to twelve small, uniform, papillose spinelets, encircling a central, robust, more or less elongate, conical spinelet. Smaller paxillæ of three to five spinelets, and without a central conical spine, are interspersed occasionally amongst the larger paxillæ, and entirely occupy the outer part of the ray. Peculiar pedicellaria-like bodies formed of four or five flattened and modified spines are present here and there, most frequently along the margins of the abactinal area of the rays, where they form a more or less definite line close up to the marginal plates; and comparatively few are to be found upon the disk, excepting in the neighbourhood of the papular areas at the base of the rays.

The marginal plates are small, and confined to the side of the ray, to which they form a nearly vertical wall. The supero-marginal plates are about thirty in number from the median interradiial line to the extremity; they are longer than high, and little more than the thickness of the plate is visible on the abactinal surface. Each supero-marginal plate bears on, or near, this upper margin a moderately long conical spine, robust at the base, tapering to a sharp point, and directed almost vertically. Two or three spines on each side of the median interradiial line are very small, then follow the longest spines on the ray, and the series diminishes gradually towards the extremity. In consequence of the length of the supero-marginal plates the spines are rather widely spaced. The general spinulation of the plate consists of minute conical granules, widely spaced. Below the spine the plate is usually very sparsely granulated, and not unfrequently a more or less extensive naked area occurs at the base of the spine, only a few well-spaced conical granules being present at the sides of the plate near the suture, except in the interbrachial arc, where the granules invariably extend over the whole of the plate. One of the four-valved pedicellariæ may be present on the suture between the supero-marginal plates, and sometimes two or three, or more, occur in close succession in the interbrachial arc.

The infero-marginal plates correspond to the superior series, each bearing a similar and equal-sized conical spinelet, directed horizontally and placed opposite to the supero-marginal spine. On the inner portion of the ray there may be one or two small spines at the base of the lateral spine. The superficial spinulation of the infero-marginal plates consists of conical or papilliform granules similar to those on the superior series, and sometimes a similar naked or sparsely granulated area occurs below the spine. On the edge of these plates adjacent to the adambulacral plates are a series of pedicellariæ of the same form as those above described on the abactinal surface, but rather irregular in their disposition.

The adambulacral plates form an angular prominence into the furrow, and bear on their inner margin a semicircular comb of about seven short, equal-sized spines, which taper slightly, but are rather obtuse. External to these, on the actinal surface of the plate,