

The supradorsal membrane is literally supported upon the tips of these spinelets. About nine longitudinal rows of paxillæ-crowns are discernible at the base of a ray. The oscular orifice is small but very conspicuous, in consequence of the well-defined bosses upon which the valves are articulated, which are visible through the transparent membrane. The valves are very regular, and composed of thirteen or fourteen spines, the outer one or two on each side being almost aborted and hidden in the general membrane by which the whole series is webbed together, whilst the two innermost spines are longer than the others, which decrease gradually on each side and form a regular triangular fan, the base of which is articulated on the elongate boss or modified pedicle above-mentioned. The bosses stand transversely and regularly central in the median line of each ray; in consequence of their breadth the distance between two neighbouring bosses, which is very small, is bridged over by two or three spinelets, whilst a few short spinelets spring from the surface of the boss, and in this manner mark out a pentagonal outline round the orifice. The valves when closed lie flat over the opening, and do not form a pyramid.

The ambulacral furrows are wide, lanceolate, and scarcely petaloid. The armature of the adambulacral plates consists of four spines (in a small specimen three), which are of moderate length, rather robust at the base and sharply tapering, arranged at an angle of such great obliquity that, roughly speaking, the series may be described as transverse, although the innermost spine, which is somewhat smaller than the others, is usually more aboral than the rest of the series. The spines are not individually invested with membrane, but are webbed together in the combs on at least the inner half of the ray. The web-tissue is extremely thin and very deeply indented between the spinelets; indeed, it is only possible to make it out by means of favourable illumination. This character seems to be less general in some specimens than in others.

The aperture-papillæ are small, short, and elongately oval, more or less squamous, but often developing small thornlets upon the surface. They are more or less hidden in membrane, and are free only on the aboral side.

The mouth-plates are small, but rather elongate and prominent, as if compressed together laterally. The aboral extremity is prominent. The adoral peak is almost obliterated by the expansion of the lateral flanges. Each plate bears three superficial or secondary spines (in a small specimen two) not longer than the spines of the adambulacral armature, but nearly twice as robust, thick at the base and tapering to a fine extremity. They are somewhat bowed or geniculate at right angles to the line of junction to the mouth-plate. The anterior pair are situated at a little distance from the adoral extremity of the plates; and the second pair, which are slightly larger and rather wider apart, stand midway between them and the aboral extremity of the mouth-plates. Immediately above the anterior pair and placed on the innermost part of the lateral flanges, are a pair of mouth-spines (*i.e.*, one on each plate), similar in every respect to the secondary spines just described, only slightly