

of supero-marginal plates and the adambulacral plates are five longitudinal and parallel series of plates, the three upper rows forming the sides of the ray and the two lower being on the tumid actinal surface. The plates of the two upper rows of the lateral series are broader than those in the three lower series. The longitudinal arrangement of all the series is perfectly regular, and the plates diminish gradually in size as they proceed outward. Excepting the median radial line, the plates of all the other rows form regular transverse, as well as longitudinal series. The plates of the median radial line are slightly larger than the others and consequently do not correspond. All the plates are contiguous, but leave a small diamond-shaped or subcircular mesh between the rounded corners of adjoining plates. This is covered with membrane, through which one or more small papulæ proceed, and on which are usually borne one, or occasionally two, small forficiform pedicellariæ. The meshes form perfectly regular longitudinal lines, and this character, as well as their presence, is rendered more conspicuous by the slightly tumid surface of the plates. The surface of all the plates is studded with a number of small, uniform, well-spaced, miliary granules, on which are articulated very short ciliary spinelets thinly covered with membrane. The plates of the median radial series are submammillated, rising to a small but definite tubercle in the middle, which gives attachment to a short, robust, conical spinelet, the surrounding portions of the plate being covered with the same small miliary granules and spinelets as the other plates. The supero-marginal plates are usually similarly mammillated and spined, and in fully grown examples the large interradiial plates on the disk and the series of intermediate plates between the median and the supero-marginal series may also bear a spine. The spines on the intermediate series of plates are, however, by no means regular or constant.

On the plates of the three rows of actinal intermediate plates, which succeed the adambulacral plates, there are usually one to three spinelets much longer and more robust than the accompanying miliary spinelets. These are naked, delicate, cylindrical, and taper to a fine extremity, and are generally arranged in slightly oblique lines, with the middle spine often more forward and longest when three are present, near the lower margin of the plate; they are also directed upward and appressed to the ray. The next row on the sides of the ray, *i.e.*, the fourth series of actinal intermediate plates from the adambulacral plates has one larger spine on each plate of equal size to those just mentioned.

The adambulacral plates are quite within the furrow, and are short but broad, extending far upward almost vertically. Each alternate plate is developed into a thin prominent ridge, which extends far into the furrow and entirely separates neighbouring tube-feet, whereas the intermediate plates are smooth, and appear to form the true furrow wall. The armature of the prominent adambulacral plates consists of four spines, which are moderately long, cylindrical, and slightly tapering, placed in single file at intervals along the edge of the ridge, the innermost being usually the most delicate, and the outermost usually the shortest. Two to five small forficiform pedicellariæ are attached by membrane,