

meshes or interspaces are large and equidistant, and a more or less distinct grouping round centres is distinguishable, where the fibres become massed together—these thickened portions corresponding usually with the tips of the spinelets, upon which they form a cap. Six to eight bands usually radiate from these centres; and if the plan just indicated were regularly carried out, an arrangement of more or less distinctly hexagonal compound meshes, divided by fibres radiating from their centre, would be produced—one primary mesh around each spinelet, and secondary meshes within this formed by each of the radiating fibres. This disposition of reticulation, however, is by no means regular, as numerous supplementary meshes and centres occur. The meshes are usually circular, oval, or subtriangular in outline, and are filled in with a fine semitransparent membrane punctured in the centre with a minute spiraculum, which is surrounded by an opaque whitish ring. The supradorsal membrane and its system of reticulated fibres extends almost up to the extreme edge of the lateral fringe. The tips of the paxillæ-spines produce slight, uniform, rounded elevations of the membrane, distributed over the whole abactinal area, to which they give a papillose or coarsely granulated appearance when seen by the naked eye. The oscular orifice is small, the circumference at the base of the valves being circular and well marked out. The spines of the valves are webbed together by an investing membrane, with reticulated fibres, into five regular, triangular fans, the margins overlapping and, when shut down, completely closing the oscular orifice.

The ambulacral furrows are lanceolate, scarcely, if at all, expanded in the middle, and gradually tapering to the extremity. The armature of the adambulacral plates consists of three short spinelets, placed obliquely—the two outermost standing at almost right angles to the furrow, the innermost, which is slightly smaller, being placed rather in advance of, or aboral to, these latter. The spines are invested with an extensive transparent membrane, and frequently two, or even all the three, are webbed together. When single, the covering gives them a broadly lanceolate shape. The aperture-papillæ are very small and elongately oval in form.

The mouth-plates are small, the pair forming a prominent though narrow ridge. Each plate carries three very robust, blunt, secondary superficial spinelets placed in line along each side of the keel, the anterior pair near the adoral extremity, and the posterior pair near the aboral extremity of the mouth-plate. They differ slightly in size, the adoral being smallest and the aboral largest. On the horizontal margin of each plate are two mouth-spines, the innermost pair immediately above the anterior secondary spinelets, of which series they seem to form a continuation, being directed downward and centripetally. The aboral pair of secondary spinelets are directed centrifugally. The second or outer mouth-spine is very much smaller and placed away from the inner mouth-spine, somewhat isolated on the margin of the plate, and is directed horizontally.

The actino-lateral spines are about twenty-one on each side (of fairly large ones only eighteen), the sixth from the mouth being longest; this and all the spines preceding it