

in consequence of the regular rounding of the plates, the ray assumes a perfectly cylindro-conical form, tapering to the tip, and suggesting the appearance of a delicate Belemnite.

The supero-marginal plates are forty-three or forty-four in number, counting from the tip of one ray to the tip of the neighbouring ray, exclusive of the terminal plates. A pair of marginal plates stands in the median interradial line, instead of a sutural division as usual in *Porcellanaster*. All the marginal plates are devoid of spines or tubercles; and in both the superior and inferior series the height is greater than the length throughout the ray.

The infero-marginal plates correspond exactly to the superior series, and their height may also be said to be equal. A few very small conical granules, evidently loosely attached, are present on the surface of the marginal plates, especially in those which border the disk, and are grouped chiefly near the actinal margin of the infero-marginal plates and the abactinal margin of the superior series. The terminal plate, which is very small and inconspicuous, is in no way gibbous, and does not interfere with the general outline of the conically tapering ray; it is entirely devoid of spines. Seen in lateral profile, the tip of the ray shows a faint tendency to an upward curve, produced by the slightly elevated position of the terminal plate and the curving upward of the actinal area.

Fourteen cribriform organs are present in each interbrachial arc; they are very narrow and their structure is papilliform. (See Pl. XXIX. fig. 6.)

The ambulacral furrows are narrow, and when in a state of contraction, entirely conceal the tube-feet. The adambulacral plates are longer than broad, but are quite inconspicuous, their form and even the divisional sutures being masked by the membrane and spinelets with which they are covered. The armature of the adambulacral plates consists of five spines on the furrow margin, and the series of these form a continuous straight line throughout the ray, without curve or break of any kind. These spines are short, robust, truncate at the extremity, and flat, their breadth being placed at right angles to the furrow, and all are equidistantly spaced apart. Behind the furrow series each adambulacral plate bears on its actinal surface two irregular series of smaller and subconically shaped spinelets, about three standing at irregular distances next to the inner spinelets, and about five in the outer series. Owing to their irregularity in number and position and their tendency to group, these outer spinelets do not form the definite continuous lineal series presented by the inner or furrow series of the adambulacral armature.

The mouth-plates are large, and the combined pairs form conspicuous tubercular prominences. The median suture is imperfectly closed and expands at the aboral extremity of the plates, exposing the odontophore. Along the free margin of the plate is disposed a series of six or seven mouth-spines, similar to the spines forming the armature of the adambulacral plates, the innermost being slightly largest. The surface of the plates bears