

secondary muscular fibres radiate up to the main fibres of the mesh ; they are of considerable thickness, and leave only narrow interspaces, in which four or five small spiracula occur.

The ambulacral furrows are very broad and petaloid in outline ; and the tube-feet are arranged in quadruple series. The transverse combs of spines on the adambulacral plates are numerous and closely placed. The armature of the adambulacral plates consists of five moderately long and robust spines, the uniting web being thick, fleshy, and with long saccular prolongations extending beyond the tips of the spines. The adambulacral spinelets are nearly equal in length, except the innermost, which is shorter and more delicate. Each alternate row or comb is somewhat retired from the furrow margin ; and in these combs the innermost spinelet is very much smaller than its companions, in some cases almost aborted. This spine is usually placed rather in advance of its row.

The mouth-plates are armed with long mouth-spines, four on each plate, all the eight webbed together, not radiating apart, but forming a narrow scoop-like fan, the inner three spines on each plate being about equal in length, but the outermost spine is very small and short. The secondary or superficial mouth-spines (one on each plate) are not longer than the mouth-spines, scarcely if at all stouter, subcylindrical, not pointed, and covered rather thickly with membrane.

The actino-lateral spines are completely hidden in a very thick fleshy membrane, which extends as a saccular prolongation beyond their extremities, forming an aborted lateral fringe projecting slightly beyond the margin of the disk and rays.

Colour in alcohol, varying from light warm brown to purplish grey.

Locality.—Station 313. Near the Atlantic entrance to the Strait of Magellan. January 20, 1876. Lat. $52^{\circ} 20' 0''$ S., long. $67^{\circ} 39' 0''$ W. Depth 55 fathoms. Sand. Bottom temperature $47^{\circ} 8$ Fahr. ; surface temperature $48^{\circ} 2$ Fahr.

Remarks.—Although this species bears much resemblance in outline and general form to *Retaster peregrinator*, it may be at once distinguished by the character of the abactinal surface, the structure of the paxillæ, and the armature of the adambulacral plates. A six-rayed example of this species, of great regularity and beauty, was also obtained.

2. *Retaster peregrinator*, Sladen (Pl. LXXV. figs. 1-4).

Retaster peregrinator, Sladen, 1882, Journ. Linn. Soc. Lond. (Zool.), vol. xvi. p. 198.

Marginal contour not greatly indented, the minor radius being in the proportion of 65.85 per cent. $R = 41$ mm. ; $r = 27$ mm. Interbrachial arcs subangular or faintly rounded. Rays short, thick, blunt, and rounded at the extremities, which are slightly upturned. Abactinal profile bombous and rather high. Actinal area flat or subconvex.

The supradorsal membrane is thick and regularly reticulated. The paxillæ have a crown of five to ten spinelets, one directed to the centre of the mesh, the rest expanded very slightly ; six radiating fibrous bands pass from the central spinelet to the mesh