

The ambulacral furrows are contracted; and the tube-feet, which have a crowded appearance, have a well-developed fleshy terminal disk.

Colour in alcohol, a bleached greyish white.

*Locality*.—Station 150. Between Kerguelen Island and Heard Island. February 2, 1874. Lat.  $52^{\circ} 4' 0''$  S., long.  $71^{\circ} 22' 0''$  E. Depth 150 fathoms. Coarse gravel. Bottom temperature  $35^{\circ} 2$  Fahr.; surface temperature  $37^{\circ} 5$  Fahr.

*Remarks*.—This species is nearly allied to *Solaster endeca*, of which it is perhaps the southern representative. *Solaster subarcuatus* is readily distinguished from the North Atlantic species by the form of the rays, by the larger and more widely spaced paxillæ, which are also more regularly arranged, and by the armature of the adambulacral plates.

5. *Solaster torulatus*, n. sp. (Pl. LXX. figs. 3 and 4; Pl. LXXII. figs. 3 and 4).

Rays eight.  $R = 48$  mm.;  $r = 17$  mm.  $R < 3r$ . Breadth of a ray at the base, 12 mm.

The rays are moderately elongate, broad at the base, slightly tumid on the inner half and then rapidly tapering to the extremity, the outer part being narrow and cylindrical. At the base of the rays on the disk there is a sharply defined sloping ravine or sulcus, continued from the summit of the interbrachial arc for a considerable distance on the disk, causing the disk to appear at first sight much smaller than it really is, and the rays to be crowded and pressed together at their bases. The abactinal surface of the disk is slightly convex. The actinal surface is plane. The interbrachial arcs are acute.

The abactinal surface is beset with very short, small, paxilliform groups of spinelets. The spinelets, of which there are eight to ten in each crown, are so small and compactly crowded that they are only distinguishable with a magnifying-glass; the groups or paxillæ appearing to the naked eye only like small, regular, uniform, semiglobular tubercles. These are well spaced apart and the interspace is occupied by a single papula. The paxillæ are arranged with great regularity, which may be resolved on careful examination into longitudinal and obliquely transverse lines.

The marginal plates (the representatives of the infero-marginal series) are quite on the actinal surface, to which they form the border, and are invisible when the starfish is viewed from above. They resemble large compressed paxillæ, the pedicle being large and massive, with the major axis at right angles to the median line of the ray, and surmounted by a crown of fifteen to twenty short compactly grouped spinelets. There are about thirty-five or thirty-six between the median interrachial line and the extremity, those on the inner half of the ray being large and widely spaced, but they diminish in size as they proceed outward and become almost microscopic towards the extremity.

The paxillæ which represent the supero-marginal plates are small in comparison with the infero-marginal plates, and very little larger than the neighbouring paxillæ of the abactinal area. They alternate with the infero-marginal plates and consequently stand opposite the interspace between each of the large marginal paxillæ.