

52° 4' 0" S., long. 71° 22' 0" E. Depth 150 fathoms. Coarse gravel. Bottom temperature 35°·2 Fahr. ; surface temperature 37°·5 Fahr.

Station 151. Off Heard Island. February 7, 1874. Lat. 52° 59' 30" S., long. 73° 33' 30" E. Depth 75 fathoms. Volcanic mud. Surface temperature 36°·2 Fahr.

Remarks.—This species is readily recognised by the length of the rays, by their narrow and tapering form, by the flexibility of the abactinal surface, and by the uniform low granulation, which in no case approaches the character of spines.

3. *Gnathaster pilulatus*, n. sp. (Pl. LVII. figs. 5-7).

Rays five. $R = 42$ mm. ; $r = 21-23$ mm. $R = 2r$ approximately. Breadth of a ray at the base, 24 mm.

General form depressed, slightly inflated over the radial areas; marginal contour stellato-pentagonal. Rays short and triangular in form, wide at the base, tapering continuously to the extremity, with straight sides. Interbrachial arcs very wide, distinctly angular at the summit.

The whole abactinal paxillar area is covered with comparatively large, short-stalked, capitate, well-spaced paxillæ, the crown of which consists of a dozen or more low, truncate, close-fitting, prismatic granules, surrounded by a number of small papilliform spinelets, the whole forming a compact, smooth-surfaced, hemispherical knob, which has the appearance to the naked eye of a well-defined tubercle. The paxillæ are widely spaced, and the papulæ, which are large, have the appearance of emerging from the angles of a hexagonal plate. The arrangement of the paxillæ is in regular oblique transverse lines, and the paxillæ diminish gradually in size as they recede from the median line of the ray and approach the margin. In a large specimen, which has the radial inflation fairly well developed, there is a distinct depression or channel traversing the median interradial line.

The supero-marginal plates are small and quadrangular, distinctly broader than long, the sutures between adjacent plates being broad and well-defined. The supero-marginal plates are nineteen in number from the median interradial line to the extremity; and there is also an odd cuneiform plate in the median interradial line. The surface of the plates is slightly convex, and covered with low, uniformly truncate, subprismatic granules.

The infero-marginal plates correspond in number and also more or less in size to the superior series, but their armature is quite different, and causes this series of plates to appear much more prominent than the superior series, leading at first sight to the supposition that they (the infero-marginal plates) alone form the outer margin. They are covered with small, robust, conical-pointed, papilliform spinelets, their disposition giving a bristling or tufted appearance to the plates, in strong contrast to the low and uniformly