

end of one plate lying upon the aboral end of the preceding plate. There are no pedicellariæ; whilst in the type-form at this, and even at an earlier, stage they are well-developed. There appear to be no actinal intermediate plates, or only the smallest rudiments in one area. There are not more than four spinelets on the actual furrow margin of the ambulacral plates directed over the furrow, but there is a similar spinelet at each extremity of the series, and directed parallel to the furrow. The mouth-plates have a marginal series of seven spinelets on each plate, the inner one being larger than the rest, and there is a large robust conical spine on the actinal surface of the plate, which is strongly developed and very conspicuous.

Locality.—Station 146. Between Marion Island and the Crozet Islands. December 29, 1873. Lat. $46^{\circ} 46' 0''$ S., long. $45^{\circ} 31' 0''$ E. Depth 1375 fathoms. Globigerina ooze. Bottom temperature $35^{\circ} \cdot 6$ Fahr.; surface temperature $43^{\circ} \cdot 0$ Fabr.

Remarks.—The close affinity of this form to its far distant type in the North Atlantic is especially remarkable, whilst the manner in which some of its characters approach even more nearly those of *Pontaster mimicus* from the North-Australian Sea are very striking, and at the same time highly suggestive of the genetic connection of the three forms.

8. *Pontaster mimicus*, n. sp. (Pl. VI. figs. 1 and 2; Pl. VII. figs. 5 and 6).

Rays five. $R = 78$ mm.; $r = 10 \cdot 5$ mm. $R = 7 \cdot 5 r$. Breadth of a ray between the second and third supero-marginal plates, 10 mm.

Rays elongate, tolerably robust at the base, tapering continuously to a finely pointed extremity, having a more or less rounded character laterally and especially on the actinal surface. Abactinal surface plane, or slightly carinate along the rays. Interbrachial arcs rather acutely rounded. Lateral walls high at the summit of the arc, and at the base of the rays. Actinal surface of the disk subplane and not prominent at the mouth-angles; rounded at the margins.

The paxillæ of the abactinal area are rather small and distinctly spaced. The largest, which are on the disk, have a crown of twelve to twenty very small, low, rounded spinelets, which appear only like granules when viewed from above, surrounding a proportionally long, delicate, tapering central spine. The presence of these spinelets imparts quite a hairy or subpapillose appearance to the abactinal area of the disk when viewed with the naked eye, the individual paxillæ and the small granuliform spinelets being invisible. Smaller paxillæ formed of three to six granuliform spinelets, and without a large elongate one, are interspersed amongst the larger paxillæ on the disk. The paxillæ at the margins of the disk and along the whole length of the ray are very small, and central spinelets are only present on some of those along the median radial region. No definite order is discernible in the arrangement of the paxillæ.

The supero-marginal plates are confined entirely to the lateral wall of the ray, only