

the young of this species. At any rate it is undoubtedly a *Pararchaster*, the only example from the locality, and from its size and character is unquestionably a juvenile form. Its measurements are  $R = 14$  mm.,  $r = 3.5-4$  mm. There are twelve supero-marginal plates between the terminal and the median interradial plates, and the latter is very large. Four or five large spinelets are present in the central region of the disk, and there only appear to be single spinelets on the scale-like plates of the abactinal surface. There is one large spine on each marginal plate with usually a small thornlet on each side, and these are most definite on the inferior series. The adambulacral plates project with an acute angle into the furrow and there are not more than one or two spinelets of the furrow series, one being at the apex of the angle, and this is either the largest or the only one present. Near the mouth-plates are three spinelets in a few cases. On the actinal surface of the adambulacral plate there is one robust spinelet throughout, and this on the inner part of the ray is frequently accompanied by a second, which stands obliquely behind it. There are no actinal intermediate plates, and the odd interradial infero-marginal plate is very large, and might almost be mistaken at first sight for a single large intermediate or ventral plate; on its surface are several thornlets. The tube-feet have well-developed, proportionally large, button-like knobs at their extremity. The madreporiform body is rather nearer the margin than midway between that and the centre, and there are very few striation grooves upon it.

*Localities.*—Station 147. West of the Crozet Islands. December 30, 1873. Lat.  $46^{\circ} 16' 0''$  S., long.  $48^{\circ} 27' 0''$  E. Depth 1600 fathoms. Diatom ooze. Bottom temperature  $34^{\circ} 2$  Fahr.; surface temperature  $41^{\circ} 0$  Fahr.

Station 143. Off the Agulhas Bank, south of the Cape of Good Hope. December 19, 1873. Lat.  $36^{\circ} 48' 0''$  S., long.  $19^{\circ} 24' 0''$  E. Depth 1900 fathoms. Globigerina ooze. Bottom temperature  $35^{\circ} 6$  Fahr.; surface temperature  $73^{\circ} 0$  Fahr.

*Remarks.*—This species may be recognised unmistakably by the presence of the large comb-formed pedicellariæ between the infero-marginal plates, and is otherwise a well-marked form.

5. *Pararchaster armatus*, n. sp. (Pl. I. figs. 5 and 6; Pl. IV. figs. 5 and 6).

Rays five.  $R = 37$  mm.;  $r = 6$  mm.  $R > 6r$ . Breadth of a ray between the second and third supero-marginal plates, 4 mm.

Rays elongate, narrow and attenuate outwardly, tapering from the base to the extremity; subdepressed, with low vertical walls, and consequently nearly rectangular in section. Disk small. Abactinal surface flat and level. Actinal surface very slightly prominent at the mouth-angles. Interbrachial arcs wide and well-rounded.

The abactinal surface of the disk and rays is covered with a plating of small, thin, subcircular spicules, overlaid with a delicate membranous tissue. The spicules bear