

specimen of this *Pennatula* was evidently beset with small pinnules, of which remnants were still visible; the exact number of these could not, however, be determined, therefore the number of twenty-one to twenty-two is only approximate.

The stem has an enlargement at the upper end, the upper part of which is of the same sulphur-colour as the rachis, while the lower portion is colourless like the rest of the stem. This lower part diminishes in size till near the end, where there is a small swelling or bulb covered with minute papillæ only visible under the microscope.

The whole feather, with the exception only of the polyps, is furnished with a large number of yellow and red calcareous needles of the form common in the Pennatulidæ. Yellow needles are also found in the stem where it is coloured yellow. The lower part of the stalk is destitute of calcareous bodies with the exception of the end-bulb, which contains very small round and oblong calcareous corpuscles.

The only polypidom at my disposal was of female sex, and the eggs were situated in the pinnules.

Length of the whole polypidom,	140 mm.
Length of the whole stalk,	40
Length of the whole feather,	100
Length of the longest pinnules,	17
Breadth of the pinnules at the base,	53
Breadth of the upper enlargement of the stem,	3.30
Maximum length of the yellow needles,	1.28
Maximum breadth,	0.085
Maximum length of the red needles,	0.85
Breadth of the red needles,	0.041
Calcareous bodies of lower bulb of stalk,	0.007-0.011

Habitat.—Station 192, on the south-east of Ceram, west of New Guinea, lat. $5^{\circ} 42'$ S., long. $132^{\circ} 25'$ E. Depth, 129 fathoms. Mud. September 26, 1874.

4. *Pennatula moseleyi*, n. sp. (Pl. II. figs. 8, 9).

The Challenger collection contained only one specimen of this remarkable species, consisting of a fragment of the pen 138 mm. in length; but this fragment showed characters sufficiently marked to cause it to be recognised as a good species. Polypidom large, intensely red. Pinnules thick, not transparent, crowded, triangular and lanceolate, curved at their free end, and with thirty to thirty-four polyps in two or three rows on their border. Polyp-cells with spines. Zooids of two kinds, the ventral beginning at the border of the leaves, large and spiny, the lateral small.

Pinnules twenty-six in number on each side of the fragment, of which the upper end is wanting. Form of the pinnules nearly triangular or lanceolate. Their broad basis obliquely attached to the rachis, the polypiferous dorsal border convex and much longer than the concave ventral margin, so that the free end of each pinnule is curved like a hook.