

obtuse angle is included between adjoining rows of opposite spirals (Pl. VII. fig. 4). The pinnules are very variable in length, but 2.2 cm. appears to be the maximum. Those in some rows are frequently longer than those in others, and it appears probable that in some cases the pinnules are longer on one side of a branch than on the other, but so many of them are broken in the type specimen that it is difficult to decide. There are usually six or seven half spirals (eighteen to twenty-one pinnules) to a centimetre. This species shows, perhaps, more clearly than any other the gradual transition from simple pinnules to the strongest branches borne by the stem. When one bears in mind that the main branches have all been derived from the pinnules of the stem, and the secondary ones from the pinnules borne by these in turn, it is easy to understand how the primary and secondary branches come to have such a varied direction. The spines are thorn-like in outline, and slightly hooked upwards. A spiral arrangement is not noticeable, but the spines are arranged in longitudinal rows, four of which may be seen from one aspect of a pinnule. The members of a row are placed at somewhat irregular intervals, from one to two and a half lengths apart. The spines in this genus, and in *Cladopathes*, differ from those of other Schizopathinæ in being longer and bent upwards, instead of extending at right angles to the axis.

The polyps are very small, with short tentacles, and are confined to one aspect of a pinnule. There are usually about eight to a centimetre, with a slight interval between each. They appear to be closer together on some pinnules than on others.

Habitat.—Station 344; April 3, 1876; lat. 7° 54' 20" S., long. 14° 28' 20" W., off Ascension; depth, 420 fathoms; bottom, volcanic sand. One specimen.

Genus *Cladopathes*, n. gen.

Dimorphic zooids much crowded and frequently incompletely separated from one another. The mouth is situated at the summit of a thick cylindrical projection of the peristome. The stomodæum is very long, and reaches nearly to the periaxial sheath of the sclerenchyma. It is much folded, and the longest diameter does not correspond with the sagittal axis. The mesogloea is very thick, and contains numerous stellate or rounded cells as in certain Actiniaria. The corallum is much branched, and the branches bear numerous short radiating pinnules. The spines of *Cladopathes plumosa* are larger than those of any other member of the subfamily, and are somewhat bent upwards.

Cladopathes plumosa, n. sp. (Pl. II. figs. 1-4).

Corallum in long plumose branches, which are more or less subdivided, each branchlet bearing a large number of short radiating pinnules. Spines relatively large and triangular, similar to the usual type in the genus *Antipathella*.

This species, of which two specimens were obtained off Prince Edward Island, is a