

branches 1.5 to 2 mm. in diameter, and from 10 to 15 cm. long. These are from 3 to 6 cm. apart, and form a very wide angle with the stronger branches in the lower portion of the corallum, but above they are closer together, and not so spreading. One of these branches with the mass of branchlets and pinnules into which it becomes divided is represented in Pl. I. fig. 8.

Such a branch becomes divided into a large number of close-set subalternate branchlets, from 2 to 4 cm. long, which extend chiefly in one plane. There are usually about six of these to a centimetre. The branches and branchlets are further clothed with innumerable short slender pinnules, which are not confined to one plane, but pass out in all directions. These vary from 0.3 to 1.5 cm. in length. Those up to about 0.4 cm. are usually simple, but the others bear secondary pinnules about 0.5 cm. long, which have a subspiral arrangement. A pinnule of 1 cm. in length may bear five to twelve secondary pinnules, one or two of which may be again subdivided. The pinnules springing from the lateral surfaces of a branchlet usually become fused with those derived from adjoining branchlets, but those on the anterior or posterior surfaces usually remain free. The pinnules on the anterior surface of a branch, &c., are usually so crowded as to completely hide the stronger portions under them. In the lower part of the corallum the smaller branches are most irregular, and give off a number of short stiff branchlets, by means of which a most irregular reticulum is formed (Pl. I. fig. 10). In such portions the pinnules are even more slender than those above. The longer ones are pinnate or bipinnate, and form a confused mass of delicate hair-like twigs, which pass off in all directions and fill up the meshes of the coarser reticulum. Such portions recall Morison's figure of his zoophyte, No. 18 (6, pl. x.), a species which Pallas regarded as belonging to his *Antipathes clathrata*. I have not seen a specimen which conforms to the definition of *Antipathes clathrata* given by Pallas, and the species does not appear to have been studied by recent observers. From the scanty information available, I am, however, inclined to think it more nearly related to *Arachnopathes ericoides* (Pallas), and *Arachnopathes aculeata*, n. sp., than to the species under consideration.

In *Antipathella contorta* the corallum is rendered still more complex from the fact that on a number of the branches and stronger branchlets, many of the pinnules become modified into a hollow cylindrical reticulum, which is inhabited by a parasitic Annelid. The tubular reticulum has a structure similar to that of *Tylopathes crispa*, n. sp. (cf. Pl. III. fig. 2), but the meshes are closer and the arrangement more irregular.

The polyps are very similar to those of *Antipathella minor*, but are frequently so crowded that the outline of each is not well defined. The usual arrangement is considerably closer than that shown in Pl. I. fig. 9. The polyps on the reticulum, which serves as shelter for an Annelid, are (in spirit) smaller and paler than the others. The tentacles often project as small rounded processes, no larger than the median prominence of the peristome on which the mouth opens.