

several pieces. The diameter of the stem is a little over 6 mm. The mode of branching is irregular. The main branches bear smaller, straight, or slightly arched, branchlets, varying from 7 to 13 cm. in length, which have a series of simple pinnules 0.6 to 4 cm. long coming off from all sides of the axis and directed obliquely. These are not very closely set, and have a similar arrangement to those of *Parantipathes hirta* (Gray). A number of branchlets clothed with pinnules arise at intervals directly from the stem as well as from the main branches.

In the upper portions of the colony the terminal parts of the main branches appear like immensely developed branchlets, bearing pinnules for a length of 20 to 25 cm., some of which become elongate, thickened, and bear a secondary series of smaller pinnules. Here, evidently, we have the earlier condition of those pinnules which, in the older portion of the colony, have become much more elongate and thickened, and there form well-marked branchlets.

In one instance the terminal 14 cm. of a main branch bears ten branchlets in all, seven of which are lateral, the others anterior or posterior. They vary in length from 5 to 16 cm., and all form an acute angle with the branch. The shorter ones are very slender, and are evidently elongated pinnules which have become pinnate. The longer ones have a diameter of about 1 mm. at the base, and may bear one to three smaller branchlets. The pinnules are very irregular in length and arranged spirally; there are from three to five to a centimetre, the average length being about 2 cm. The spines are long and slender, having a sharp bend near the base, so that the apical portion of the spines takes a subvertical direction. The spines are arranged in regular longitudinal rows, six or seven of which may be counted from one aspect of a pinnule. They are also arranged in irregular spirals, which may be dextrorse, but a spiral in the opposite direction is almost equally well marked. The members of a row are about one length apart. Each spine is about equal in length to the diameter of a pinnule; the base is broad and thick, the apical portion usually slender, with a sharp point (Pl. XI. fig. 6).

This is the species which Gray referred to *Antipathes subpinnata*, E. and S. It differs essentially from that species in the arrangement of the pinnules and in the form of the spines. It is placed in the genus *Aphanipathes* provisionally, but the polyps are not known; it seems, however, to possess a more elongate type of spine than is found in *Antipathella*, and appears related in the form of corallum to a number of West Indian species which have an obscure polyp. The specimen described by Gray bears the manuscript name "*Antipathes Wollastonii*," which it appears desirable to retain. Gray (*loc. cit.*) remarks that he at first regarded this specimen as distinct and named it *Antipathes wollastoni*, but that later he regarded it as a variety of *Antipathes subpinnata*, E. and S. His description of *Antipathes subpinnata*, therefore, refers to this specimen and not to the type of Ellis and Solander. Another specimen in the British