

separated by intervals more than equal to the length of a spine (Pl. IV. fig. 7). The polyps are not preserved. A number of horny Annelid tubes are applied to the stem of the type specimens.

*Habitat*.—Station 192; September 26, 1874; lat. 5° 49' 15" S., long. 132° 14' 15" E., off Ki Islands; depth, 140 fathoms; bottom, blue mud. Two specimens.

[*Antipathes*] *spinescens*, Gray (Pl. II. fig. 8; Pl. XI. fig. 24).

*Antipathes spinescens*, Gray, Proc. Zool. Soc. Lond., 1857, p. 292.

“Coral branched, branches divaricating, subcylindrical; branchlets on all sides of the stem, crowded, short, of nearly equal length, straight, spine-like, with spine-like branches and branchlets on their sides; the lower branchlets sometimes tending toward one surface” (Gray, *loc. cit.*).

The stem is 2 to 2.5 mm. in diameter, and tapers rapidly above. The branches are very irregular in length, the stronger ones being 6 to 9 cm. long and 1.5 to 2 mm. in diameter at the base. In one portion of the specimen the branches form an acute angle with the stem, and are placed entirely without order. In another portion the branches extend in a subhorizontal direction and have branchlets 2 to 10 cm. long rising subvertically. Sometimes three or four branchlets are collected together in a cluster. The whole axis is densely clothed with branched pinnules, forming an acute angle with the axis, arranged in very close spirals (?) and subequal in length, giving the appearance of a bottle-brush in which the bristles are directed upwards instead of horizontally, and about 2 to 2.5 cm. in diameter.

The stem and branches bear four rows of closely-set and strongly spinose pinnules, arranged in a close spiral, and in such a manner that the bases of the pinnules form four longitudinal series, subequidistant. The spiral is from left to right. Each pinnule is forked near the base, that fork passing out in the direction of the spiral being usually longer than the other. Both bear secondary and sometimes short tertiary pinnules; most of them arise from the lateral margin, but frequently one or more spring from the *under* surface and are directed downwards and forwards. For the precise mode of arrangement see Pl. II. fig. 8. The primary pinnules are from 9.5 to 15.5 mm. long, and one occupies a position nearly at right angles to the stem. The effect is a bottle-brush form about 2.5 cm. in diameter. Occasionally and at irregular intervals a pinnule becomes elongate and thickened, and then bears a close-set spiral of pinnules. These by increase in importance form the branches of the stem.

Sclerenchyma black on the stem, golden brown in the pinnules.

The spines are elongate, often slightly curved upwards, and are distinctly longer on one side than on the other (Pl. XI. fig. 24). They are similar in shape to those of *Antipathes pennacea*, Pall., but are not all subequal. They are close set in longitudinal