

The type specimens are in the British Museum (Reg. Nos. 46. 8. 3. 130., &c.). The corallum is about 60 cm. high, much and irregularly branched, not in one plane, but the whole mass is somewhat flattened. Both primary and secondary branches are irregularly placed, and bear long rigid filiform branchlets from 3 to 10 cm. in length. These are usually simple, but sometimes bear moderately long secondary branchlets on one side only. The long simple branchlets give this species somewhat the appearance of *Aphanipathes? pedata* (Gray), but they are scattered instead of being collected into small fan-like groups. The spines are of two very distinct sizes. The large ones form elongated cones with a relatively narrow base, and have a length equal to about two-thirds the diameter of a pinnule. They are not arranged spirally, but occur in longitudinal rows, seven or eight of which may be counted from one aspect. The spines in some of the rows are more numerous than those in others; they are from one to two lengths apart, and have an arrangement similar to those of *Antipathes mediterranea*, n. sp. In some cases the large spines extend horizontally, in others they form an acute angle with the axis, but the spines themselves are rarely bent. The interval between the large spines is filled in with irregular longitudinal rows of very short subtriangular spines with a sharp apex.

*Habitat.*—Stephens Island, New Zealand (Jukes), Brit. Mus.

*Aphanipathes? verticillata*, n. sp. (Pl. XII. figs. 25, 25a).

A branched species with long subsimple branchlets having much the habit of *Aphanipathes fruticosa* (Gray), but the spines are in verticils and each is covered with strong spinous processes.

Height of the corallum 80 cm., spread 70 cm. The base is strong, and the lower branches are 4 to 5 mm. in diameter. The more slender branches bear a number of elongate branchlets which usually all spring from the same side of the branch. These are usually close together, about six in 3 cm., and have a diameter of 1 to 1.5 mm. at the base. They vary in length from 5 to 20 cm. or more. These may be simple, or, in the case of the longer ones, may bear a secondary elongate branchlet 6 to 10 cm. long. Both primary and secondary branchlets may in addition bear a short tertiary branchlet some distance from the apex, from 1 to 2 cm. long. The specimen is dry, but the polyps are preserved on many of the branchlets. They form regular longitudinal series, and there are about six polyps to each centimetre. Whether they present the generic characters of *Aphanipathes* cannot be decided with certainty at present.

The spines are arranged in verticils from one and a half to two lengths apart. Usually seven or eight spines in each verticil may be seen from one aspect. The spines are also disposed in longitudinal rows with considerable regularity. Each spine is about twice as long as broad (at the base), and gradually tapers to a sharp point. It is densely covered