

for the tubes of an Annelid (*Marpysa antipathum*) ; also in 76 to 287 fathoms at twenty stations off Montserrat, Martinique, Dominica, Guadeloupe, St. Vincent, the Grenadines, and Barbadoes (Pourtales).

*Aphanipathes? abietina* (Pourt.).

*Antipathes abietina*, Pourtales, Cat. Mus. Comp. Zoöl., pt. viii., 1874, p. 47, pl. ix. fig. 10 ; Bull. Mus. Comp. Zoöl., 1878, p. 210 ; *Ibid.*, 1880, pl. iii. fig. 14.

Stem simple or emitting a few simple branches from the base, stiff erect, hirsute, beset with short pinnules on all sides, not verticillate. This is the principal difference from *Aphanipathes flix*, which is pinnate. Pinnules nodose, beset with cylindrical spines. The polyps are of the short-tentacled type surrounded by larger spines than those on the rest of the pinnule. Height 10 cm. Pinnules about 1 cm. long. Every specimen has one or two worm tubes attached to the stem as in *Aphanipathes flix*.

*Habitat*.—Off Barbadoes, 100 fathoms (Pourtales).

*Aphanipathes cancellata*, n. sp. (Pl. III. figs. 5-9).

The corallum forms a flat close-set reticulum extending more in breadth than in height. The larger of the two specimens included in the Challenger collection is 26 cm. high and 55 cm. broad. A few centimetres above the base the branches extend horizontally, so that the maximum breadth is quickly reached. A main stem is absent in this species. A number of short strong branches arise from the dilated base, and passing upwards and outwards soon become so reduced in diameter as to be indistinguishable amongst the numerous branchlets. There are no other strong branches passing through the corallum in various directions which might give a clue to the mode of branching. Nearly the whole of the corallum consists of slender branchlets, which subdivide irregularly and are united to neighbouring branchlets by means of short transverse or oblique pinnules about 0.3 to 1 cm. in length and having a similar diameter to the branchlets from which they are developed. The arrangement of the branchlets and pinnules near the centre of the corallum as they appear clothed with polyps and coenenchyma is shown on Pl. III. fig. 6, which is twice the natural size. In the middle portion of the corallum the branchlets have a general subvertical course; laterally they extend more obliquely, whilst near the base they take a subhorizontal direction. Near the apex of the corallum the branchlets taper quickly and the pinnules are more slender (Pl. III. fig. 7). Many are short and acicular, but with greater elongation they become thickened and bear from one to six lateral and subalternate processes, indicating a transition to the branchlet form. The base and the strong branches springing from it