

4. Stem simple; pinnules arranged in lax spirals, simple, slender; longer spines slightly rugose (?) *abietina* (Pourt.).

Section II.—Corallum fan-like, the main branches in one plane. Branches confluent.

1. Corallum large, extending more in breadth than in height, without any thick branches excepting near the base; spines elongate, conical, covered with numerous short sharp serrations, *cancellata*, n. sp.

Aphanipathes sarothamnoides, n. sp. (Pl. V. figs. 6-9; Pl. XIV. figs. 2, 3).

The mode of branching in this species closely resembles that of a spray of broom. The corallum is about 30 cm. high, but the specimen is not complete. The stem (or main branch?) is short and tapering, having a diameter of 2 mm. at the base. It gives rise to three or four elongate branches which arise at a narrow acute angle. Each of these gives rise to a large number of branches at acute angles, nearly all of which take a sub-vertical course. One branch, 15 cm. long, bears five primary branchlets at intervals of 1.5 to 2.5 cm., all of which arise from the same side. The lower ones are 5 to 6 cm. long, simple or bearing a single secondary branchlet at a very narrow acute angle; all taper gradually to a long slender point. The two upper branchlets are longer than the others (9 to 10 cm.); the lower one bears two secondary branchlets about the middle on the outer side, one of which is short. The upper one is forked near the base, and each portion bears two secondary branchlets, in one case on the inner side, in the other on opposite sides; the longest measures 6 cm. In most cases the primary branchlets all spring from the same side of a branch (Pl. V. figs. 6, 7).

The polyps appear as small rounded or oval prominences on the sclerenchyma, and all are confined to one aspect of the corallum. They are usually oval in outline, the interzoidal areas being merely indicated by a contraction of the tissues. About six are distributed to each centimetre. The tentacles are short cylindrical processes, those in the sagittal axis being sometimes rather longer than the others. The mouth is oval or rounded, but sometimes an elongation in the sagittal axis is moderately well marked (Pl. V. fig. 8).

The spines are subcylindrical, with a blunt apex and a broad compressed base extending longitudinally. Each spine bears a number of short blunt processes on its distal half. The spines are not arranged in any very evident spiral manner, but are disposed in longitudinal rows, seven of which are visible from one aspect of a pinnule. The spines are all bent upwards from the base, and the members of a row are rather less than two lengths apart (Pl. V. figs. 9, 9a).