

grow together so as to give rise to double and quadruple forms. Length to breadth 0.19-0.08; 0.3-0.05; 0.16-0.06; 0.2-0.15; 0.15-0.02; 0.3-0.02; 0.2-0.03 mm.

*Habitat.*—Station 214, south of the Philippines; depth, 500 fathoms; bottom, blue mud.

7. *Dasygorgia melanotrichos*, n. sp. (Pl. IV. fig. 3; Pl. V. fig. 5).

The slender, thread-like stem gives off branches at great intervals on four sides, which ramify in different planes very copiously and at obtuse angles, giving off twigs up to the sixth order. The axis is horny, stiff, even to the simplest ramifications, shining, and of a dark brown colour. The polyps, 2.1 mm. in length, are slender, cylindrical, and are always on the short internodes of the twig. The spicules of the upper layer are blunt, flat spindles, covered with very fine, sharp warts, often somewhat constricted in the middle, and exhibiting fine lines radiating from a central nucleus. In the polyps they are longitudinally placed, towards their base they assume an oblique direction, and pass into the very thin coenenchyma, in which they become broader and shorter, almost scale-shaped.

This species, of which only the stem (without the base) and several branches were obtained, in habit very closely resembles the former, from which it differs in the more abundantly ramified branches, and in the form of the spicules and polyps.

The stem is thin, not bent in its course, and of tolerably uniform thickness. Its diameter reaches, at the lower end, 1 mm. The branches first arise at a height of 105 mm. from four sides, at unequal, but very great intervals. The distance between the first and second is 11 mm., between the second and third 14 mm., between the third and fourth 45 mm. The branches are angularly bent, in different planes, at the places where the twigs arise; the twigs come off at oblique angles and give off lateral twigs at similar angles, which are again bent in a zigzag manner and give rise to twigs. The last twigs may be of the sixth order. The internodes are not very long, 5 to 6 mm. Hence arises an uncommonly rich, wide-spreading ramification.

The polyps are cylindrical, 1.5 mm. long, with broad bases; usually there is one perpendicularly placed polyp on an internode, seldom two.

The axis is horny, dark brown, shining and somewhat iridescent on the surface, slightly flexible and elastic. In the main stem it is thread-like, in the finer branches it appears like a stiff horse hair.

The spicules of the outer layer are broad spindles, with rounded ends and somewhat sinuous edges. Under a higher power fine lines are seen radiating from a central nucleus to the edges, and they are found to be provided with sharp little thorns, which form little points on the edges. Their length to breadth in mm. reaches in the polyps 0.29-0.06; 0.26-0.07; 0.28-0.067; in the tentacles 0.22 and 0.25-0.04; in the coenenchyma 0.21-0.033; 0.16-0.025; 0.2-0.05-0.058.

*Habitat.*—Station 343, Ascension Island; depth, 425 fathoms; bottom, volcanic sand.