

The polyps are relatively large, with a very broad base, their length amounts to from 2.5 to 3 mm. They are found only on the branches and twigs, and indeed there is only one polyp on each node of a branch or twig. Only the terminal twig may bear two polyps, one in the middle and one towards the end.

In the superficial layer the spicules consist of spindles, which are covered with fine warts. They usually lie longitudinally on the polyp, and in each tentacle are placed in three rows, which extend right up to its tip. Towards the base of the polyp their direction becomes more oblique to the axis of the calyx, and in the stem they lie parallel to the long axis of the latter. Upon the base of the polyp they are very broad, and cover the stem almost like a pavement; further off upon the stem they soon diminish in size. The length of the spicules in the polyp reaches 0.38; 0.33; 0.37 mm.; with a maximum diameter of 0.05; 0.06 mm. At the base of the polyp they reach 0.41; 0.44 mm., with a breadth of from 0.067 to 0.08 mm. In the stem their length diminishes to 0.16; 0.25 mm. The deeper layer consists of thin, transparent, flat bodies, without spines, and also of little spindles and crescentic forms. Their surface is smooth, or provided with a few little warts. The edges are sharply toothed. The teeth of the different spicules interlock, so that they are united together in a continuous layer. Their size is very variable. Length to breadth in mm.—0.25–0.08; 0.23–0.06; 0.17–0.06; 0.11–0.04; 0.14–0.03; 0.13–0.02. Colour in spirits, white.

*Habitat*.—Station 122, off Pernambuco; depth, 350 fathoms; bottom, red mud.

[Also (Verrill) lat. 25° 33' N., long. 84° 35' W.; depth, 539 fathoms. Off Dominica; depth, 542 fathoms. Off Martinique; depth, 502½ and 334 fathoms. Off St Lucia; depth, 422 fathoms. Off St. Vincent; depth, 573 fathoms.]

2. *Dasygorgia flexilis*, n. sp. (Pl. IV. fig. 2a, b; Pl. V. fig. 2; Pl. VA. fig. 10).

Very like the last, but distinguished by the flexible axis, the more strongly ramified branches, whose twigs form sharper angles with the main branch, by the smaller polyps, and by the form and sculpture of the spicules, which only bear small, scarcely distinguishable warts.

The elegant little stalk rises from a calcareous basal expansion to a height of 100 mm. The slender stem bears twigs from a height of 20 mm. upwards, which arise from three directions at angles of about 40°, at different heights, so that their bases describe spirals, each of which comprises three branches. The base is a calcareous disc, conical, dividing into five flat, root-like processes, the edges of which again give off little rootlets. Above the base the stem is only 1 mm. thick, and ascends in a zigzag manner, bent at the point of departure of each twig, and having at the same time a spiral twist. The branches arise at greater distances from one another than in the last species (2.5 to 3 mm.); about the middle of the stem they attain a length of 30 to 35 mm., and are directed obliquely