

ramification. The spicules are large, warty spindles, which form a thick layer in the cœnenchyma; smaller spicules lie in the dividing walls of the elongated polyp tubes. Unfortunately there are only fragments of this species present. (See Appendix.) These indicate a kind of colony formation which much recalls *Siphonogorgia mirabilis*, Klunzinger. The consistence of the whole is stiff and brittle, even in the fragments in spirits. In the largest fragment the main stem has a thickness of 2 mm. The length of a branch is 5 mm. and its thickness 1 mm.

The polyps are arranged spirally on the stem as well as on the branches. One can distinguish a calicular portion, which arises obliquely upwards on the stem, and whose outer wall is 0.8 mm. high. The tentacular operculum is withdrawn up to its margin. The distance between the individual polyps is 1.2 mm., towards the points of the twigs they press more closely together, and at their apices there are generally three close together, one of which occupies the centre. The entire cœnenchyma contains large, longitudinally arranged spindles, which lie close together so as to form a coherent layer. These are distinctly recognisable even with the unassisted eye. They are generally stout spindles, sometimes straight, sometimes simply curved and sometimes slightly *f*-shaped, with rounded ends, and thickly covered with large, erect, somewhat tubercular warts. They measure 1.2 by 0.2; 1.2 by 0.18; 1 by 0.12 mm.

Each calyx is surrounded by a crown of spindles, which stand upon the spicules of the cœnenchyma either vertically or obliquely (following the direction of the calyx). These spindles are slightly curved, usually sharp at both ends, and covered with smaller projecting warts. They measure 0.6 by 0.09; 0.48 by 0.08 mm. In the bases of the tentacles small spicules occur arranged in a  $\Lambda$ -shaped manner; these constitute an operculum which can be withdrawn beneath the margin of the calyx; they measure 0.2 by 0.025 mm. Beneath these there is a collaret formed of curved spindles arranged in a circle; these measure 0.23 by 0.025 mm.

The interior of the branches and of the stem is penetrated by canals, which are the prolongations of the gastral cavities of the polyps. In each branch three, seldom four, wider tubes are distinguishable, which are embedded in the axis. These are the elongated gastral cavities of the terminal polyps. They are clothed with endodermal epithelium, separated from that of the next tube only by a very thin layer of mesoderm.

Of the mesenterial filaments four extend to below the œsophageal tube of the polyp, two further, while two are prolonged still further as low ridges. On these are developed ova, which are met with even far below in the gastral cavity. Spermatozoa were never found, so that the species is probably dicecious. Towards the outside of the axial gastral cavity ova of small diameter occurred in greater numbers; these belonged to the lateral polyps. The canals are separated by thick layers of mesoderm, which thicken still more at the periphery, forming a layer in which the large spicules are embedded. In the mesoderm surrounding the canals are embedded smaller calcareous spicules, which are