

The barren stem has a rough, thin, somewhat flabby outer covering, in which lie numerous small, rough spicules. The thickly placed spicules are jagged structures whose shape may generally be reduced to the club-type. The largest are more spindle-shaped, provided with large spines, and expanded at one end into branching processes; size, 0.4 by 0.1 mm. Smaller forms also occur resembling foliaceous clubs, with branched, spiny processes; size, 0.2 by 0.12 mm. Most abundant, however, are forms which correspond to the spiny folia of a foliaceous club whose peduncle is almost entirely reduced; size, 0.13 by 0.08 mm.; 0.17 by 0.13 mm. Towards the head there occur, amid the above-mentioned forms, long, slender spindles, 2 to 2.5 mm. in length, which, owing to their red colour, stand out distinctly from the white ground formed by the outer covering of the stem. With the commencement of the ramification the long red spindles predominate, penetrating the mesoderm of the branches and branchlets. They lie in very various positions, transversely, longitudinally, and obliquely. In the more slender branchlets they have usually a longitudinal direction.

These spicules are not closely packed but are separated from one another by interspaces, so that each individual spicule is readily distinguishable. Their common form is that of a spindle, each spindle being covered with little, pointed, very closely placed spines. The spicules are frequently bent, or curved in a slightly undulating manner, more gradually attenuated at the one than at the other (blunter) end. Their length reaches 0.9 to 6 mm., with a diameter of 0.04; 0.05; 0.25; 0.4 mm.

In the twigs and secondary twigs occur long, white spindles, which are placed longitudinally and close together, and here give to the twigs a denser consistency. They are shaped like the foregoing, being straight, curved, and undulating, and thickly covered with fine, small spines. The largest are continued from the secondary twigs into the peduncle of the polyp heads, which they overtop; they reach 5 to 6 mm. in length, with a thickness of 0.3 to 0.44 mm. The smaller ones measure 1 by 0.06; 1.08 by 0.04 mm.

The spicules of the polyp heads are straight, slender spindles. Eight of the largest amongst these reach from the base to above the origin of the tentacles, like a crown. Between them lie smaller spindles which rest against the eight large spicules in eight groups; they completely fill the wall of the head. Their sizes reach 0.5 by 0.025 mm.; 0.5 by 0.033 mm., 0.43 by 0.033 mm., 0.25 by 0.001 mm.

The colour of the trunk is yellowish-white; that of the main and secondary branches pale purple; of the twigs, secondary twigs, and polyp heads, white.

In its mode of branching this species recalls *Spongodes florida*, but is distinguished by the more regular growth, and especially by the shape of the polyp heads and by the spicules.

*Habitat*.—Station 188, Arafura Sea; lat. 9° 59' S., long. 139° 42' E.; depth, 28 fathoms; bottom, green mud.