

If this form did not present the very remarkable feature of the tentaculated polyp-cells, of which fig. 13 representing a young leaf gives a very good idea, nobody would entertain a doubt of its being only a stout form of the long-known *Scytalium sarsi*. But the tentacles, which are found on every polyp-cell, and, as the younger leaves show, are developed before the polyps, make it necessary to describe it under a new name, so long as no intermediate forms between it and *Scytalium sarsi* are found. Besides this, the size of the most developed polypidom and the colour deserve attention. The largest specimen was only coloured (1) in the region of the polyp-cells, but not everywhere on all leaves, and not on all cells of the coloured leaves, and (2) on the upper part of the stalk. A second specimen was nearly colourless, with the exception of the upper end of the stalk. Two others, on the contrary, were pretty strongly coloured on the stalk, the rachis, and the base of the leaves. As a difference between the two forms I may also mention the form of the lowest undeveloped leaves. In *Scytalium tentaculatum* these form a short series, and the leaves assume very near the end the form given in fig. 13, whilst in *Scytalium sarsi* the row of these pinnules is longer, and many of them are remarkable from the fact that the polyp-cell near to the ventral surface is larger than the rest. The calcareous corpuscles are the same as those in *Scytalium sarsi*, only their maximum length is a little less on the stalk, in *Scytalium tentaculatum* 38 μ , in *Scytalium sarsi* 53 μ .

Four well-preserved specimens were at my disposal, of which I here give the following measurements:—

	A.	B.	C.	D.
Length of the whole polypidom,	620 mm.	340	330	90
Length of the whole stalk,	92	71	77	33
Length of the base of the pinnules,	12-15	6-8	6-8	8-9
Length of dorsal border,	7-9	5	5-6	5
Breadth of the stalk,	7.5	4	4	1.5
Breadth of the rachis,	3.6	2	2	2.0
Number of pinnules,	101	17
Length of the tentacles at the polyp-cells in adult leaves 0.58 mm.				
Length of the tentacles at the polyp-cells in young pinnules 0.80 to 1.0 mm.				

Habitat.—Station 203, Philippines, lat. 11° 7' N., long. 123° 7' E. Depth, 10 to 12 fathoms. Mud. October 31, 1874.

Section II. SPICATÆ.

Sub-section I. FUNICULINÆ.

Family 2. STACHYPTILIDÆ.

Stachyptilum, n. gen.

Small pens without leaves, polyps with cells in small rows of four on both sides, and on the dorsal aspect of the rachis. Cells without stronger spines at their openings.