

Certainly the position, arrangement, and characters of these cells are very suggestive, but further observations appear to be necessary before their sensitive function can be definitely admitted.

Protoplasmic Continuity.

Whether the cells just alluded to should prove to be *æsthocytes* or not, there remains every reason for believing that the *collencytes* play the part of a rudimentary or undifferentiated nervous system, *i.e.*, they serve as intermediaries placing the various

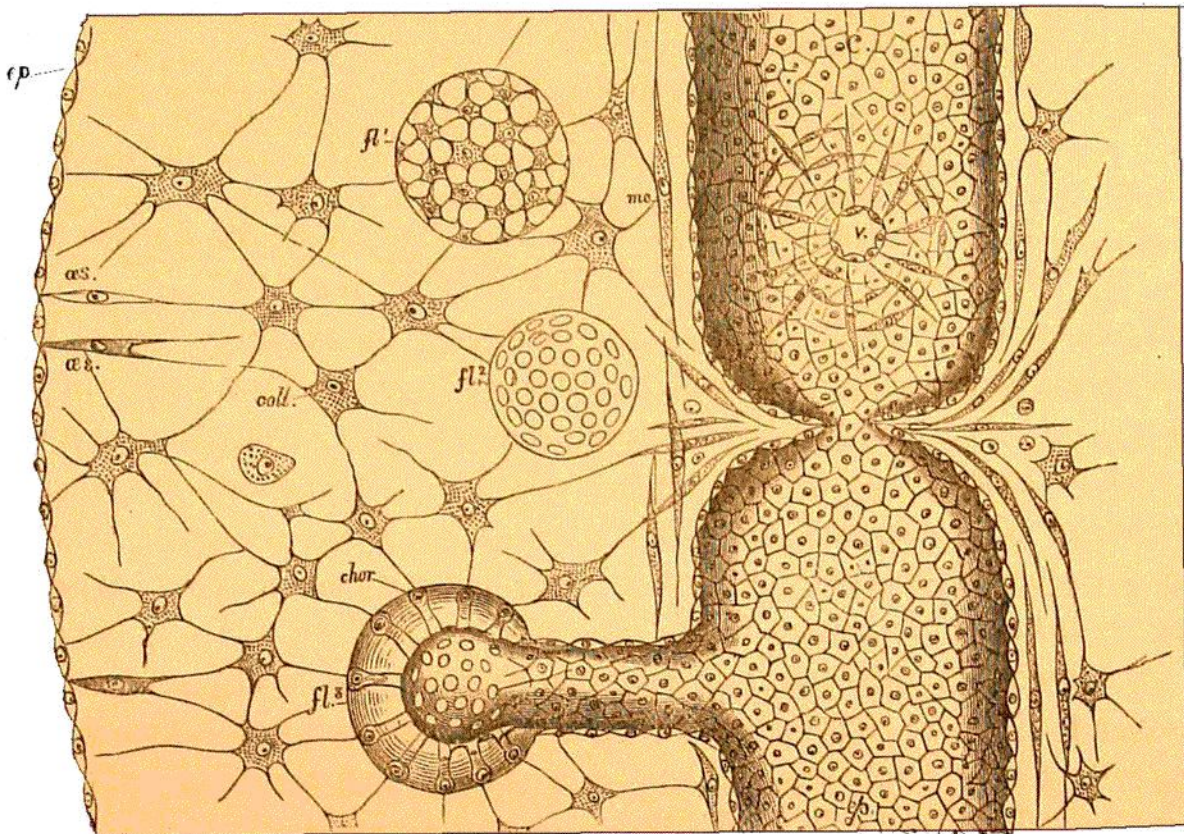


FIG. IX.—Diagram to represent the protoplasmic continuity of a sponge. *ep.*, epithelium; *æst.*, *æsthocytes*; *coll.*, *collencytes*; *mc.*, *myocytes*; *fl.*₁₋₃, *flagellated chambers*; *fl.*₁, seen from the prosodal face; *fl.*₂, from the aphodal; *fl.*₃, in median longitudinal section; *v.*, *velum*, seen *en face*; a transverse section is seen in the middle of the same canal as that in which this occurs.

histological elements of the sponge in protoplasmic continuity. When describing *Therea muricata*,¹ I was already much impressed with this view and wrote as follows:—"The ends of the fibres or of the branches from them (*i.e.*, of the *collencytes*) appear to be ultimately brought into close connection with the ectodermal and endodermal layers, for on the inner faces of these layers fine filamentous processes are often seen wandering, and the branching processes of the connective-tissue corpuscles (*collencytes*) can frequently be traced right up to them; in several cases also I believe I have seen a connection between the individual cells of a flagellated chamber and the branching processes of a corpuscle.

¹ *Ann. and Mag. Nat. Hist.*, ser. 5, vol. ix. p. 446, 1882.