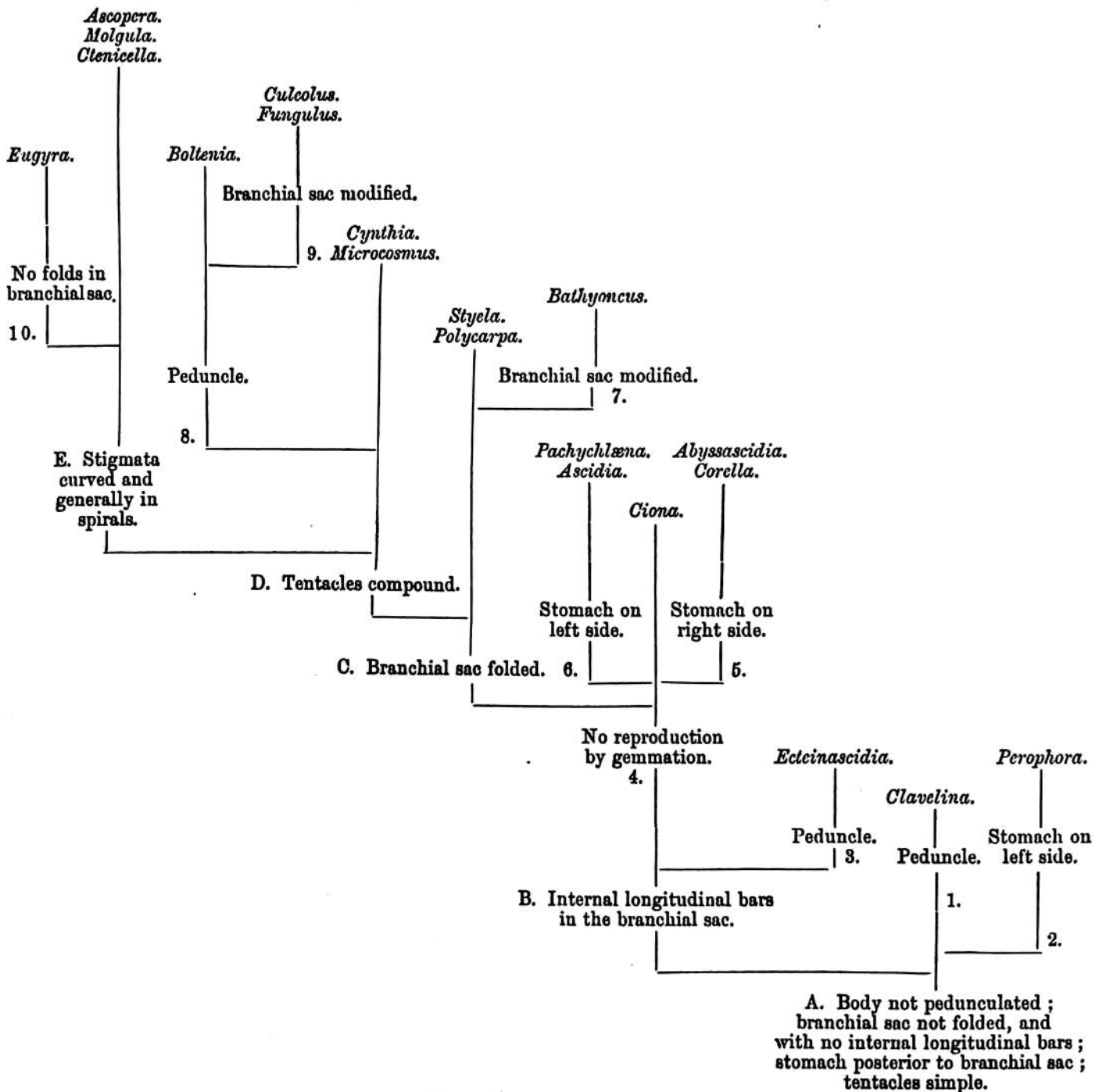


must have been a form with no peduncle, simple tentacles, internal longitudinal bars and folds in the branchial sac, with the stomach probably posterior, and having no power of gemmation. Such a form is represented, probably with little change, by the genera *Styela* and *Polycarpa*, while *Bathyoncus* has diverged at the point 7. *Pelonaia*, which like *Bathyoncus* differs from the other Styelinæ in having the branchial sac modified, is probably of comparatively recent formation, as some of the species of *Styela* show tendencies in the same direction,—i.e., towards the loss of the branchial folds. From the main stem between C. and *Styela*, a form D. has branched off, which had compound tentacles, and was the common ancestor of the Cynthinæ, the Bolteninæ, and the Molgulidæ.

PHYLOGENETIC TABLE OF THE ASCIDIÆ SIMPLICES.



A, B, C, D, and E are hypothetical ancestral forms of large groups, while 1-10 are points where a change of structure is supposed to have taken place, resulting in the divergence of one or more genera from the main line.