

ANATOMY.

The following account of the anatomy and histology¹ of the Compound Ascidiæ deals chiefly with the points in which the groups of these Tunicata differ from the Simple Ascidiæ and from one another in the arrangement and structure of their various organs, and therefore may be regarded as supplementary to the corresponding section of the Introduction to Part I. of this Report.

The minute anatomy of certain special forms (*e.g.*, *Colella pedunculata*, p. 77, and *Colella thomsoni*, p. 95) will be found in their proper places in the systematic part of the work; and the more important points of novelty and interest exhibited by the Challenger collection will be discussed in the General Summary at the conclusion of the Report.

Classification.

The scheme of classification given in Part I. (p. 25) is retained unchanged, except that the families Cœlocormidæ and Polystyelidæ have been added to Suborder II., the Ascidiæ Compositæ. The same system of nomenclature will still be made use of, and the body, when being described, is supposed to be in the position figured and explained on p. 27 of Part. I.

The Colony.

As all Compound Ascidiæ reproduce by gemmation, specimens are almost always found to be colonies consisting of a number of members. These members may be called

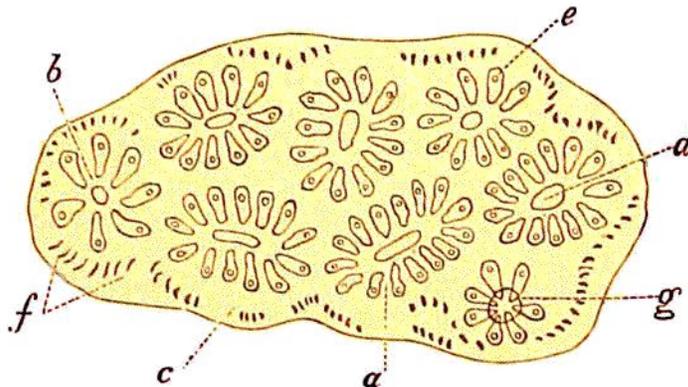


FIG. 1.—A Colony of a Compound Ascidian (*Botryllus*). The Ascidiozooids are arranged in eight systems.

a, a large system formed of fifteen Ascidiozooids; *b*, a small system formed of seven Ascidiozooids; *c*, the test or investing mass; *d*, a common cloacal aperture; *e*, an Ascidiozooid; *f*, the terminal knobs of the vessels; *g*, a system where the common cloacal aperture is fully expanded.

“Ascidiozooids,”² and the colony as a whole the “Ascidiarium” or “Cormus.” If the Ascidiozooids are arranged in definite groups which can be distinguished from one

¹ For further details in regard to the structure of the Compound Ascidiæ I may refer the reader in particular to Giard's *Recherches sur les Synascidies*, and to Della Valle's *Nuove Contribuzioni alla Storia Naturale delle Ascidie Composte*; and also to the account of the structure of *Colella pedunculata* given further on in this Report (p. 74).

² This term was first used, I believe, by Huxley.