

show how a complicated system might be produced by a series of gradual changes from the simple stellate system of a *Botryllus*. They are all forms which are frequently seen in examining a number of colonies of different ages of a common *Botrylloides* (e.g., *Botrylloides rubrum*, Milne-Edwards).

A shows a system like that characteristic of *Botryllus* and *Polycyclus*, composed of a few Ascidiozooids arranged radially around a circular common cloaca, so as to produce

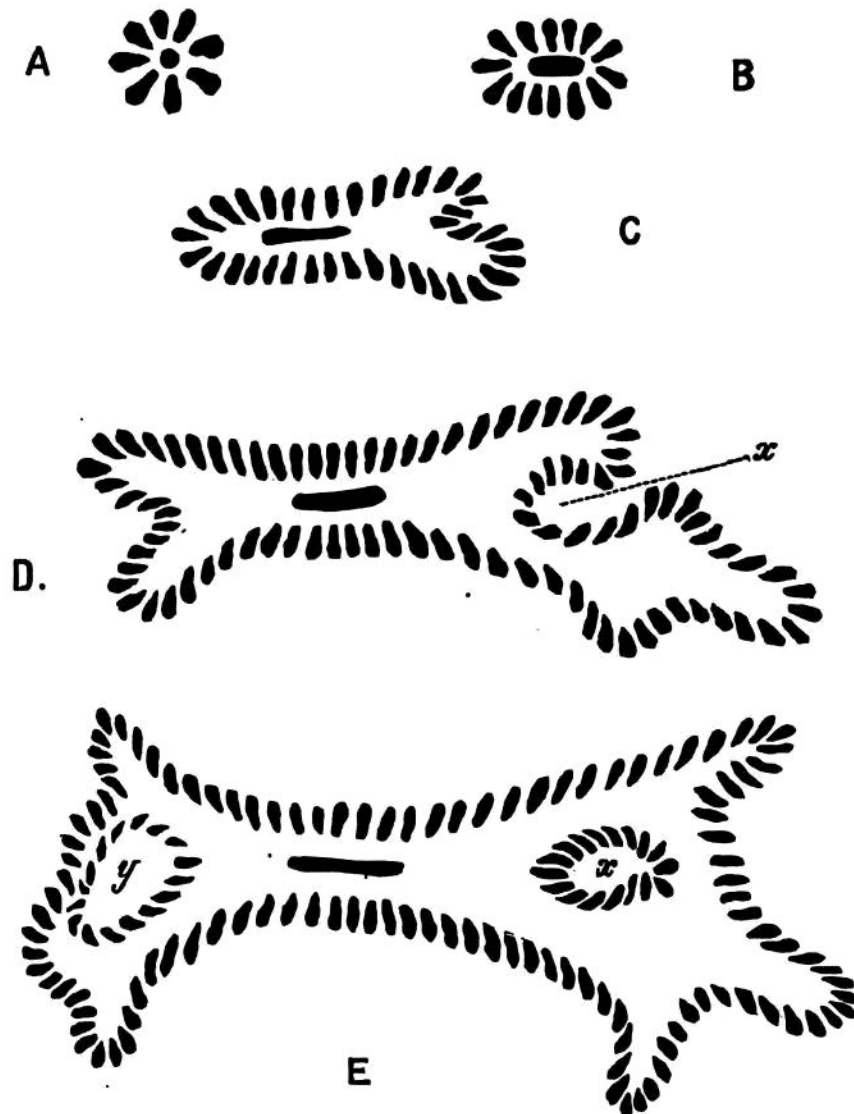


FIG. 8.—Diagrams showing how a simple circular system (A) may develop through (B) and (C) into the condition characteristic of the systems in the genus *Botrylloides*, such as (D) and (E).

a stellate figure. In B the system has become elongated, the Ascidiozooids are more numerous, and the common cloaca is elliptical. This condition may sometimes be seen in species of *Botryllus*, and it is common in young colonies of *Botrylloides*. In C the system has become much larger and the number of Ascidiozooids is greatly increased. Each end of the formerly elliptical system has become enlarged, and one of them is commencing to fork or divide into two branches. D shows a still larger and