describes and figures their separate and independent existence in *Diazona* and *Distoma*, two of the genera of his Téthyes Composées. *Clavelina* in his system is placed—rightly, I consider—next to the "Phallusiæ Cionæ" (the modern genus *Ciona*) among the Ascidiæ Simplices.

Savigny classified the ten genera which he recognised amongst Compound Ascidians by means of characters taken from the branchial and atrial apertures. But although such characters are most useful and constant marks of affinity in the Simple Ascidians, they fail signally as applied by Savigny to the Compound forms, and result in the separation of his closely allied genera *Didemnum* and *Eucælium*, while *Diazona*, *Distoma*, and *Sigillina* are thrown together in one group, although really belonging to distinct families, and *Eucælium* is placed with *Botryllus*, a genus with which it has certainly no close relationship.

Lamarck's classification of the Tunicata, published about the same time, was based upon the arrangement of the Ascidiozooids in the colony, but the result was no better than that obtained by Savigny's method, since *Polyclinum* was united with *Polycyclus* and *Botryllus*, *Eucælium* was united with *Aplidium*, and *Distomus* was grouped along with *Sigillina*, while *Aplidium*, *Polyclinum*, and *Sigillina* were widely separated.

Cuvier, writing shortly afterwards, refused to accept the majority of Savigny's and Lamarck's genera, on the ground that they were not sufficiently distinct from one another. Subsequent investigators have not supported him in this view. Savigny's genera are still nearly all retained, and some have even been broken up into several groups now regarded as distinct genera.

The next classification of importance is that of Milne-Edwards, published in 1841, and one of the most notable features of his arrangement is that it involves the separation of the Clavelinidæ (at that time the two genera *Perophora* and *Clavelina*) as a distinct group, the Ascidiæ Sociales, occupying an independent position between the Simple and the Compound Ascidians. He defined this new group as comprising Ascidians which reproduce by buds as well as by eggs, and which live united by common radiciform prolongations, but which otherwise are free of all adhesion to one another. He distinguished the Simple Ascidians as forms which never reproduce by gemmation and are never found in groups united by a common tegumentary tissue; while he separated the Compound from the Social Ascidians on account of their possessing a test common to all the members of the colony. If we unite the Simple and Social Ascidians, which, as I have shown in the first part of this Report,[1] there is reason for doing, we shall have, according to Milne-Edwards, the Simple and Compound Ascidians distinguished merely by the members of the colony in the latter being united by a common test, while in the former each individual has its own distinct tunic. This character, although much better than the one made use of by Savigny, is, as we shall see later on, by no means an infallible guide.

[1] See vol. vi. part xvii., where the Clavelinidæ are treated as a family of the Ascidiæ Simplices.