The genera which have been enumerated constitute an unbroken morphological series, with no lines of demarcation indicating the limits of the successive groups into which, for convenience, it has been divided; and the relationship between the various types of structure is strengthened and further complicated by the existence of intermediate forms, which present, in the same individual, the characters of two or more types. In this way Nodosaria is connected with Frondicularia by the dimorphous genus Amphimorphina, with Rhabdogonium by Dentalinopsis, with Cristellaria by Amphicoryne, with Polymorphina by Dimorphina, and with Uvigerina by Sagrina; and in like manner Cristellaria is associated with Lingulina by Lingulinopsis, and with Frondicularia by Flabellina.

Lastly, the genus *Ramulina*, which holds a position somewhat apart from the rest of the family, owing to its branching habit of growth, is nearly allied in all other respects to that section of the *Nodosaria* in which the segments are separated by narrow stoloniferous tubes.

Sub-family 1. Lageninæ.

Lagena, Walker and Boys.

Orthoceras, pars, Soldani [1780].

Serpula (Lagena), Walker and Boys [1784], Adams, Kanmaeher.

Vermiculum, pars, Montagu [1803].

Serpula, pars, Maton and Rackett [1807], Pennant, Turton.

Lagenula, Montfort [1808], Fleming, Macgillivray, Thorpe.

Amygdalites, Costa [1828].

Apiopterina, pars, Zborzewski [1834].

Miliola, pars, Ehrenberg [1839].

Oolina, d'Orbigny [1839], Reuss, Diesing, Czjzek, Costa, Egger, Terquem, Karrer, Kübler and Zwingli.

Cenchridium, Ehrenberg [1843].

Amphorina, d'Orbigny [1846 ?], Costa, Seguenza.

Lagena, Williamson [1848], Harvey and Bailey, Parker and Jones, Reuss, Gümbel, Carpenter, Stache, Brady, Karrer, Schwager, Hantken, Rymer Jones, &c.

Entosolenia (Ehrenberg, MS.), Williamson [1848], Parker and Jones, J. W. Dawson, Alcock, Whiteaves, G. M. Dawson, Fischer, Berthelin, Möbius.

Fissurina, Reuss [1849], Bornemann, Egger, Karrer, Seguenza, Schwager, Schlicht, Terquem, Marsson.

Ovulina, Ehrenberg [1854], Bornemann, Seguenza.

Amygdalina, Costa [1856], Seguenza.

Phialina, Costa [1856], Seguenza.

Holococcus ? Ehrenberg [1859].

Trigonulina, Tetragonulina, Obliquina, Seguenza [1862].

Ovolina, Terquem [1866].

Lagenulina, Terquem [1876].

Cupitellina, Marsson [1878].

In its essential features the genus *Lagena* presents the simplest and most elementary structure found in the hyaline series of Foraminifera. The test consists of a single