

venience, applicable only in the subordinate sense in which it was at first employed, to a small and ill-defined section of the genus *Nodosaria*.

The Glanduline *Nodosariæ* may be roughly cast into three groups:—1, the tapering varieties, more or less resembling the type, *Nodosaria (Gl.) lævigata*; 2, the forms with oval outline and rounded base, of which *N. (Gl.) rotundata* is perhaps the earliest named example; 3, those with elongate subcylindrical shells, of which *N. (Gl.) æqualis* is the best illustration.

Prof. Reuss, in his valuable notes on von Schlicht's drawings of Tertiary Foraminifera,<sup>1</sup> published not long before his decease, states his conviction that the entire series must be accounted as one species, and suggests the following subdivision into varieties.

*Glandulina lævigata*, d'Orbigny.

- a. Var. *typica*,—elliptical, inferior end pointed and with more or less curved sides.
- b. Var. *elliptica*,—inferior end blunt or armed with a very short point, the lateral margins of the inferior portion not curved. The somewhat elongate specimens form *Gl. elongata*, Bornem.
- c. Var. *inflata*,—with large inflated final chamber.
- d. Var. *subcylindræca*,—inferior end pointed, middle portion with parallel sides, cylindrical.
- e. Var. *strobilus*,—elongate, gradually tapering towards the inferior end, blunt or with a rudimentary spine, the final segment occupying  $\frac{2}{3}$  to  $\frac{1}{3}$  of the entire length.
- f. Var. *obtusissima*,—short, inferior end broad and rounded, the final chamber large and inflated.
- g. Var. *globulus*,—almost spherical, inferior end abruptly pointed. Segments few in number, the last which is very large and rounded, forming the principal part of the test.
- h. Var. *rotundata*,—like the last-mentioned, but very small, without the terminal point, rounded.
- i. Var. *gracilis*,—thin and slender, inferior portion elongated and acutely pointed, not unfrequently with oblique septa. The "var. *emaciata*" belongs to the *Lagenæ*.
- k. Var. *æqualis*,—more or less elongate and cylindrical; the passage-form to the cylindrical *Nodosariæ*.

In accordance with these definitions the figures in Pl. LXI. might be allotted as follows:—fig. 17, to Var. *rotundata* or *obtusissima*; figs. 18 and 19, and perhaps also fig. 20, to Var. *elliptica*; figs. 21 and 22 to the typical *lævigata*, and fig. 32 to Var. *æqualis*; but the laxity of the descriptive terms is sufficient indication of their slight zoological value.

In any large assemblage of *Glandulinæ* a few exceptional specimens will be found, having more or less oblique sutures, and as remarked by Reuss the slender modifications, such as Var. *gracilis*, are most subject to this peculiarity of growth. Sometimes the inequilateral development is sufficient to disturb the external symmetry of the test.

The condition referred to is precisely analogous to that of the curved or Dentaline *Nodosariæ*; it is brought about in the same way and has neither greater nor less morphological significance. Its importance, however, has been differently estimated by some writers, who have recognised in the mere one-sided growth of the shell the distinctive

<sup>1</sup> *Sitzungsb. d. k. Ak. Wiss. Wien*, vol. lxii. p. 478.