fessor Bütschli.¹ In both of these something more is attempted than the mere subdivision of the Foraminifera into Families and Sub-families. The distinctive characters of the constituent genera are recorded with sufficient minuteness to be of service to the working naturalist, and the result is in either case a tolerably complete synopsis of the group. The mode of treatment adopted by the two authors is, however, strikingly different. The long experience of Dr. Schwager, gained chiefly by the study of fossil types, has prompted a somewhat artificial method of dealing with the subject; whilst Prof. Bütschli, from a wide general knowledge of the Protozoa, rather than a special or practical acquaintance with the testaceous Rhizopoda, has arrived at conclusions at variance in many essential points from those entertained by any previous systematist. It is nevertheless always of interest to the specialist to compare his results with those dictated by the study of larger groups; and for this reason, if for no other, the latter work has a claim on our attention.

It would occupy too much space to reproduce either of these classifications in full, and summaries similar to those which have been already given will serve for purposes of comparison better than more extended tables.

## Schwager, 1877.

- I. FORAMINIFERA WITH PURELY CALCAREOUS PERFORATED TESTS.
- II. FORAMINIFERA WITH AGGLUTINATED TESTS.
- III. FORAMINIFERA WITH PURELY CALCAREOUS IMPERFORATE TESTS.
- IV. FORAMINIFERA WITH CHITINOUS TESTS.
  - I. Foraminifera with purely calcareous perforate tests.
    - A. Chambers disposed in a single line and on one plane.
      - 1. Lagenoidea.
      - 2. Rhabdoidea.
      - 3. Dentalinoidea.
        - (a) Dentalinidæ.
        - (b) Pullenidæ.
        - (c) Nummulitidæ.
      - 4. Cristellaroidea.
    - B. Chambers disposed in a single line and in a spire (Turbinoidea, Schultze).
      - 5. Polymorphinidea.
      - 6. Buliminidea.
        - (a) Buliminidæ.
        - (b) Rotalidæ.
      - 7. Globigerinidea.
        - (a) Globigerinidæ.
        - (b) Planorbulinidæ.

<sup>&</sup>lt;sup>1</sup> In Bronn's Klassen und Ordnungen des Thier-Reichs, 1880, vol. i. (Protozoa) p. 172 et seq.