As a fossil it has been obtained from the Cretaceous formations of the north of Ireland (Wright), the Eocene clays of the London Basin (Jones and Parker, Brady), the Miocene deposits of Austria, France, and elsewhere (d'Orbigny, Czjzek, &c.), the later Tertiaries of Italy (Defrance, d'Orbigny, Jones and Parker), the Crag of the east of England (Jones, Parker, and Brady), and the Post-tertiary beds of Norway, Scotland, and Ireland (Sars, Robertson, Wright).

*Textularia sagittula*, var. *fistulosa*, nov. (Pl. XLII. figs. 19–22).

The general characters of this variety are similar to those of the typical form, but the lateral edges of the chambers are supplemented by tubulated projections, which are directed obliquely towards the primordial end of the test, and which, when perfect, impart an irregularly dentate or serrate contour to its margin. These tubular growths are sometimes given off along the entire length of the shell, sometimes only from the earlier chambers; they are generally arranged in single file, but occasionally in a partially double or multiple row. They often open directly into the cavities of the chambers to which they are individually appended; but on the other hand, they frequently appear to form distinct supplementary chamberlets, without any orifice in the enclosed portion of the primary wall. In the latter condition it is probable that communication originally existed, and that it has been gradually closed by the subsequent thickening of the shell.

The fistulose condition of *Textularia sagittula* appears to be the result of redundant growth; and it is principally met with in specimens from tropical and sub-tropical latitudes.

*Textularia siphonifera*, H. B. Brady (Pl. XLII. figs. 25–29).

*Textularia siphonifera*, Brady, 1881, Quart. Journ. Micr. Sci., vol. xxi., N. S., p. 53.

Test free; elongate, subcylindrical, nearly round in transverse section, tapering and pointed at the primordial end; each of the two opposing series of segments furnished with numerous fistulæ (or supplementary chambers?), most of them with rounded external orifices, arranged in from two to four, more or less regular, longitudinal rows. Length, $\frac{1}{16}$th inch (1·5 mm.) or less.

It is often very difficult to determine the relation of the lateral fistular growths of the *Textulariæ* to the segments with which they appear to be immediately connected. In the present species I have never been able to trace, either by sections or otherwise, any well-marked orifice in the included portion of the primary wall, and in the absence of such connection the "fistulæ" can only be regarded as supplementary chamberlets.

The drawing (fig. 29) represents accurately the transverse section of a shell having