

really is, but for a profile of alternating granules belonging to two different valves. Moreover, judging from the figure of the zonal side of *Terebraria kerguelensis*, O'Me., we cannot recognise in this type the condition of a frustule "binately conjoined." Nor can it be admitted that the so-called *Terebraria kerguelensis*, O'Me., should be classed with *Terebraria barbadensis*, Grev., and it is not easy to decide to what other genus the form in question should be ascribed, so that, though with reservation, the name given by O'Meara may for the present be retained.

Terebraria (?) sp. (?) (Plate XXV. fig. 2.)

This figure represents an organism obtained to the south of Heard Island, which shows seven lines having the appearance of indented lines of suture similar to those which have been observed on the zonal side of *Terebraria kerguelensis*, O'Me. It may be observed that the undulating lines are disposed around corresponding straight lines, and that at each of these regions a solution of continuity takes place as a result of the fitting together of the two valves which seem to alternate with one another as in O'Meara's species. In this figure, too, it is to be noted that the granules or costules which are seen in profile differ greatly in number in the different valves. Yet it cannot be doubted, as some have done, that the striation or the granulation of a frustule, presents *within certain limits* good characteristic features for diagnostic purposes, although the necessity for exercising caution in generalising on such appearances is at once obvious. This has already been referred to by me in the Transactions of the Pontifical Academy,¹ where the fact that other Diatoms, such as *Eunotia formica*,² Ehrenb., have the striæ irregularly distributed not only on different frustules, but also on the same valve, has been recorded. Apart, however, from the circumstance of the magnitude of the striæ based upon the comparison of the undulated lines of division with those that are found in *Terebraria kerguelensis*, O'Me., this new type may for the present be named *Terebraria*, although no specific designation can be given, as the characteristics of the valves have not yet been adequately determined.

Plate XXV. fig. 1 also represents a series of frustules which, although probably not members of the genus *Terebraria*, but of the genus *Fragilaria*, yet exhibit, when seen in the zonal aspect, some relation to the *Terebraria kerguelensis* of O'Meara, although they cannot be regarded as identical with that species. The frustules have evidently been obtained at different stages of development. The uppermost in the figure has recently undergone fissiparous division, but the resulting cellules have not yet become detached, although the margins of the adjoining valves are now clearly indicated by the two transverse central rows of granules. This phase would seem to be a repetition of the condition re-

¹ *Atti Accad. Pontif. d. nuov. Lincei*, vol. **xxi**. sect. 6.

² Ehrenberg, *Mikrogeol.*, pl. iii. iv. fig. 18.