

These remained united, however, by a small triangular cushion at the superior extremity of the two recently formed valves.

This same Diatom was also found among the collections made at Tilanshang, one of the Nicobar Islands, by the Austrian scientific frigate "Novara," and was named by A. Grunow *Asterionella frauenfeldii*;<sup>1</sup> but, with this exception, no other naturalist has recorded its occurrence, although it is found in almost all seas.

Although at first sight this curious Diatom recalls the genus *Asterionella*, it is to be remarked that in the latter the inferior extremities of the frustules are dilated and are in contact with one another instead of adhering by means of small cushions.

In the Synopsis des Diatomées de Belgique, by van Heurck and Grunow, which has recently appeared, and in the section of Pseudoraphidieæ (plate xxxvii.) the forms which Grunow named *Asterionella frauenfeldii* are referred to the new genus *Thalassiothrix*, to which there is also ascribed the very singular *Synedra thalassiothrix* of Cleve. But, after a careful comparison of these two forms, they cannot be regarded as congeners, the one—*Asterionella frauenfeldii*—having its frustules united by small membranous cushions, while the other—*Synedra thalassiothrix*—is solitary or disposed in parallel bands.

With regard to the genus *Thalassiothrix*, Grunow says that it embraces some species resembling *Asterionella*, but having on the margins spines or elevated points between which one sees a short marginal striation. The structure here described is indeed precisely that of the *Synedra thalassiothrix* of Cleve; but it cannot in any way be compared to that of *Asterionella frauenfeldii*, the bacillar Diatom in which there is only to be discovered a line of very salient marginal granules, which render the two small apices indistinct. Hence it would be better, at least for the present, to exclude Cleve's *Synedra thalassiothrix* from the genus *Thalassiothrix* altogether.

But the *Thalassiothrix (Asterionella) frauenfeldii* of Grunow may, on the other hand, be retained in that genus, although the generic definition must be somewhat modified. It may be amended as follows:—Frustulis linearibus radiatim per pulvinulum gelineum armilliforme unitis, bino erectiorum punctulorum ordine instructis; post frustulorum deduplicacione armilla dirumpitur, et frustula in seriem alternam per isthmum triangularem coalescunt.

*Thalassiothrix frauenfeldii* (Grun.), Cstr. (Plate XIV. figs. 7 and 8.)

Frustulis radiatim conjunctis, hinc in catenas alternas dispositis; a latere zonali anguste linearis, valvis arctissime linearibus, utroque margine serie unica punctulorum (spinularum?) evidentium ornatis. Ad insulas Nicobar, ad Java, in mari Sinensi et Japonico, in Adriatico, in Tyreno et alibi.

<sup>1</sup> *Verhandl. d. k. k. zool.-bot. Gesellsch. in Wien*, 1863, p. 140, pl. xiv.—Diatomaceen der Novara-Expedition—fig. 18.