

*Achnanthes kerguelenensis*, n. sp. (Plate XX. fig. 15.)

Valvis lanceolato-rhombicis; apicibus obtusis rotundatis; striis moniliformibus subradiantibus. Ad insulam Kerguelen.

This frustule has a lanceolate-rhomboidal outline, thus agreeing with *Achnanthes rhomboides*<sup>1</sup> of Ehrenberg, but instead of possessing acute extremities like the latter it has absolutely rounded and obtuse apices.

It was found in a sounding taken near Kerguelen Island.

*Achnanthes parallela*, n. sp. (Plate XIX. fig. 11.)

Valvis linearibus; apicibus rotundatis; punctulorum lineis subradiantibus. In portu Thaiti.

This frustule was found in sand which proved to be rich in various forms of Diatoms and which was obtained from a great depth at the port of Tahiti. The valves are bounded peripherally by straight parallel lines, the extremities are rounded, and the lines of puncta are subradiating.

No hitherto recorded species agrees with this form, whose specific name has reference to its parallel margins.

---

## TRIBE II.—PSEUDORAPHIDIEÆ.

### *Gephyria*, Arnott.

This genus, as well as that of *Eupleuria*, was established by Professor Walker Arnott, but as it not unfrequently happens that the definitions of new genera when first constituted are very imperfect, and as further examination often demonstrates not their generic but only their specific value, the *Eupleuriæ* and *Gephyriæ* were subsequently united by Professor H. L. Smith, the peculiarities of their structure not being sufficiently well marked to indicate distinct generic characters.

In both types the frustules, which are united together, consist of dissimilar valves, and the transversely disposed lines on these are cut by longitudinal lines. The transverse ribs, moreover, are so arranged that the areas included between them on the two sides of the central band alternate (Plate XV. fig. 10). Both have arcuate valves, but in the case of *Gephyria*<sup>2</sup> the lower valve differs from the upper "in having a smooth circular space at each end," while in *Eupleuria*<sup>3</sup> the inferior valve has "the costæ and striæ disappearing below the extremities of the valve," although these structures reach the extremity in the superior.

<sup>1</sup> This form is identical with *Achnanthes ventricosa*, Kütz., Bac., p. 76, pl. xx. fig. 7, and with *Monogramma ventricosa*, Ehrenb., *Monatsber. d. k. Akad. d. Wiss. Berlin*, 1843.

<sup>2</sup> Pritchard, *op. cit.*, p. 809.

<sup>3</sup> *Quart. Journ. Micr. Sci.*, vol. vi. p. 89.