nevertheless be viewed as of specific value, is the gradual diminution in size which the cellules undergo as they approach the margin.

Lauderia, Cleve.

Professor P. T. Cleve, in his Examination of Diatoms found on the Surface of the Sea of Java,[1] established this genus in honour of Mr Lauder, who has contributed so much to our knowledge of the genus *Chætoceros*, giving the following definition :—" Frustules cylindrical, side view orbicular; covered, at least near the margin, with numerous short hair-like processes or spines; front view annulated. Sculpture consists of very fine puncta."

The *Lauderiæ* are very well marked, and cannot readily be confounded with any other genus; it is, therefore, not easy to understand the grounds on which Professor H. L. Smith [2] failed to mention the genus in his Synopsis of the Families and Genera of Diatoms.

Lauderia annulata, Cleve. (Plate VIII. fig. 7.)

We have here represented an organism, found in a surface gathering made in the Antarctic Ocean, which is obviously identical with the *Lauderia annulata* of Cleve.[3] It need not therefore be further alluded to.

Lauderia elongata, n. sp. (Plate IX. fig. 4.)

Forma cylindrica, annulata, quatuor vicibus longior quam latior, per superficiem valde convexam terminata; frustula in seriem per apicum coronam coherent. In mari Philippinarum.

This organism was found in a surface gathering made in the neighbourhood of the Philippine Islands. It differs from *Lauderia annulata*, Cleve, in the following noteworthy points : (1.) It is four times as long as broad, while in the latter the length is equal to the breadth; (2.) its surfaces of junction are almost hemispherical, while in the latter they are hardly convex; and (3.) it presents a line of junction around the middle of the annulated connecting zone—a feature which is not indicated in the figure of *Lauderia annulata* given by Cleve.

That these distinctions must be regarded as of specific importance is at once obvious.

Lauderia pumila, n. sp. (Plate IX. fig. 8.)

Frustula annulata cylindrica triplo longiora, punctulorum corona marginali seriatim disposita. Ad insulas Philippinas.

The four small cylindrical frustules here represented are annulate, and are in this respect similar to the species last described. In the present case, however, the contiguous

[1] *Bihang k. Svensk. Vet. Akad. Handl.*, Band I. No. 11, Stockholm, 1873.
[2] The Lens., vol. i., 1872.
[3] *Op. cit.*, p. 8, pl. i. fig. 7.