

is marked by many areas or compartments which are limited by folds or depressed lines, while each compartment is ornamented by a point or granule—the latter character being one of the chief distinguishing features of the genus *Stictodiscus*. It is true that here no radiating folds occur at the circumference, and that the granules are more dense at the edge than at the centre; hence the frustule should probably be designated *Stictodiscus quadricornis*, although its precise determination must remain somewhat uncertain.

Professor Cleve, in his communication On Some Rare and Little-Known Diatoms,¹ has described two forms under the name of *Triceratium*, which, in my opinion, are also true *Stictodisci*. The first—*Triceratium gallapagense*, is shown in his plate vi. fig. 72. It is a triangular acute-angled form, with granules sparsely scattered in the middle, but more densely disposed at the sides, where they form short rows, while fine branching lines of more simple points are seen at the angles. In the figure the few radiating lines which are indicated evidently denote the characteristic folds of *Stictodiscus*. It should accordingly be designated *Stictodiscus gallapagensis*. It is distinguished from my *Stictodiscus bicoronatus* specifically by the absence of the central corona.

The second form referred to by Cleve as *Triceratium margaritifera* (*loc. cit.*, pl. vi. fig. 76) is a *coronated Stictodiscus*. It has been described by Cleve as follows:—"Valve quadrangular, with concave sides and rounded angles, without processes. Surface probably plane. Structure tolerably coarse, granules arranged near the margins in short lines, smaller in the angles, rare and scattered in the middle." In the centre of the figure there is also seen a small corona of points which has been omitted in the above description. By examining the various figures which I have given of new species of *Stictodiscus*, the very close affinity of this species of Cleve is at once apparent, although the folded condition of the valve in the latter is not evident. Hence this frustule should be named *Stictodiscus margaritifera*.

The above remarks on *Stictodiscus* and *Triceratium* were finished when the nineteenth part of Schmidt's Atlas of the Diatomaceæ was published. In that work very good figures are given on plate lxxiv. of several new species of *Stictodiscus* as well as of some already known, and on plates lxxv. and lxxvi. numerous types have been represented as belonging to the genus *Triceratium*, among which I at once recognised many real polygonal *Stictodisci*. Among the known discoidal forms *Stictodiscus hardmanianus*, Grev., is shown on plate lxxiv. fig. 8, in a somewhat small form; *Stictodiscus kittonianus*, Grev., is seen in figs. 16, 17, and 18; while *Stictodiscus californicus*, Grev., occurs as fig. 4, and several varieties as figs. 1, 2, 3, 6, 7, and 9.² Among the new species, on the other hand, *Stictodiscus simplex*, A. S., is shown in fig. 11; *Stictodiscus*

¹ *Kongl. Svensk. Vetensk.-Akad. Handl.*, Bd. XVIII. No. 5, p. 25, pl. vi. fig. 72.¹

² These varieties are—*Stictodiscus californicus*, Grev., var. *areolata*, Grun., pl. lxxiv. fig. 1.
Stictodiscus californicus, Grev., var. *nankoorensis*, Grun., pl. lxxiv. figs. 2 and 3.
Stictodiscus californicus, Grev., var. *ecostata*, Grun., pl. lxxiv. figs. 6 and 7.
Stictodiscus californicus, Grev., pl. lxxiv. fig. 9.