Stictodiscus japonicus, n. sp. (Plate I. fig. 2.)

Granulorum lineis per plicas radiantes divisis prope marginem binatim orientibus; areis mediis grandiusculis reticulatim dispositis singulo granulo plerumque distinctis. In mari Japonico.

This organism may be distinguished from the others by the circumstance that in it the granules do not occur on the perimeter, while there are always two granules standing side by side at the outer extremity of every row. The central areas are somewhat large, of irregular forms, and are in most cases ornamented with a single granule.

Stictodiscus affinis, n. sp. (Plate I. fig. 4.)

Lineis granulorum per plicas circumradiantes divisis; media superficies in areolas reticulatim distincta; areæ nonnullæ granulo instructæ. Ad Zebu in mari Philippinarum.

This form is much akin to the preceding, but may be distinguished from it by the fact that the lines of granules proceed from the margin—a peculiarity which may also be seen in the variety described below. The two granules found at the outer ends of every row in *Stictodiscus japonicus* do not occur here, where, moreover, the central areas are of smaller sizes and somewhat more abundant. Although the majority of these areas are ornamented by a single round granule, some of them are entirely devoid of this structure, while others bear two.

Stictodiscus affinis, n. sp., var. nov. (Plate I. fig. 6.)

Differt a forma typica per lineas binis granulis ter vel quatuor vicibus repetitis incipientes. Ad mare Philippinarum.

In this Diatom the granule-bearing areas sometimes exhibit four pairs of puncta towards the circumference of the disc. The central areas are somewhat irregular in size and form, and while several are perfectly smooth others bear a single round granule. Hence although not identical with the Zebu type, this frustule cannot be regarded as more than a variety of it.

Stictodiscus affinis, n. sp., var. *late-zonata*, nov. (Plate XVII. fig. 11.)

Although well characterised by its distinct granulated zone, this Diatom must be viewed as a distinct variety of *Stictodiscus affinis*. It is principally distinguished by the marginal radiating folds, which become reticulated towards the centre, and by the distinct and regular lines of granules interposed between the folds. Marginally the granular lines are ornamented by pairs of puncta placed laterally. Two well-defined rings of approximately equal size run round the periphery.

Stictodiscus affinis, n. sp., var. nov. (Plate XVII. fig. 8.)

Another variety of the same species is here shown. The smallness of its disc and the smaller number of its radii can certainly have no specific significance, but it may be