

and in the form of the processes, it is to be noted that the latter is areolated instead of being delicately punctated, and instead of being globoso-cylindrical it is oblongo-cylindrical. The specific name of this Diatom, which was collected in the neighbourhood of the Philippines, has been given in honour of Mr Kitton, the well-known English micrographer.

*Stephanopyxis rapax*, n. sp. (Plate IX. fig. 9.)

Valvis convexis, lævi margine hinc grandiuscularum cellularum ordine cinctis, medio granulis rarioribus radiantibus ornatis; a cellularum corona decem aduncæ spinæ adsurgunt. In mari Antartico.

This small discoid organism was obtained at Station 153,<sup>1</sup> lat. 65° 42' S., long. 79° 49' E., from a depth of 1675 fathoms, in a bottom of blue mud. It is terminated by a wide smooth border, within which a circle of very large cellules occurs. The disc is ornamented with delicate subradiating granules, which diminish slightly in size from the centre to the periphery. Between the central disc and the cellular corona ten strong claw-like structures arise—a characteristic which must be held as of specific importance.

*Stephanopyxis turris* (= *Cresswellia turris*, Grev.)

A specimen of this Diatom, which is unquestionably identical with the *Cresswellia turris* of Greville,<sup>2</sup> was obtained in the Arafura Sea. Although the species may be readily recognised when viewed in its zonal aspect, it is much more difficult to do so when seen from its valval side.

*Stephanopyxis campana*, n. sp. (Plate XIX. fig. 14.)

Oblonga, subcylindrica, valvis campanulatis, cellulosis, hemispherice terminatis et per paucos obtusos processus coronatis; cellulis confertis parvis, et marginem versus minutibus. In mari Japonico.

This organism, which is figured in its zonal and most characteristic aspect, was observed among the Diatoms collected from the Sea of Japan. The valve is subcylindrical and oblong, and is twice as long as it is broad. The surface of junction is hemispherical and surmounted by a crown of truncated processes. The cavity of the valve is bell-shaped, and its external surface is densely cellular, the cellules diminishing as they approach the edge.

In many of the above characters this organism agrees with *Stephanopyxis apiculata*, Ehrenb.,<sup>3</sup> but the cellulation of the latter is described as "not crowded," and as being "arranged in longitudinal rows." But the most important character of *Stephanopyxis campana*, and one which, while it has not hitherto been recognised in any species, must

<sup>1</sup> This station was the nearest to the South Pole.

<sup>2</sup> *Trans. Roy. Soc. Edin.*, vol. xxi. p. 538, pl. xiv. fig. 109.

<sup>3</sup> Ehrenberg, *Mikrogeologie*, pl. xix. 13, fig. 6; Pritchard, *op. cit.*, p. 826.