rays of the hyaline star are all equal to one another, and the lines which radiate from the umbilicus are well defined on the circular granulated area. Though several specimens of this genus have been observed, none present any very well-marked characteristics.

Asterolampra grevillii, (Wall.) Grev., var. *eximia*, nov. (Plate V. fig. 5.)

This magnificent disc was procured from soundings taken at the equator in the Atlantic Ocean. It is 175 μ in diameter, and although it does not agree in all its features with any species hitherto recorded, it approaches most closely to *Asterolampra grevillii*, (Wall.) Grev., which has been defined by Greville [1] in the following terms :—" Areolated segments square at the base; rays numerous; umbilical lines divided and arranged in parcels or groups of from two to five lines each." In this description it is to be remarked that the term *base* ought rather to be *apex*, as it has reference to the smaller extremity of a pyramidally shaped area, while the word *square*, though applying exactly to the frustule now in question, should be replaced by the designation *subquadrate*, as may be at once observed on consulting the figures given by Greville and Wallich.

The following additional points of distinction between *Asterolampra grevillii* and the Challenger frustule, may also be pointed out :—(1.) The umbilical lines in the former are, as above indicated, in groups of from two to five, but in the latter of from three to seven; (2.) The number of rays in the former are from thirteen to seventeen, while in the latter they are twenty; and (3.) the radius of the central disc of the former exceeds one-third of that of the entire valve, while it is less than a third in the latter.

All these distinctions, however, can hardly be regarded as of sufficient importance to justify the establishment of a new species for the frustule now figured for the first time, but the elegance of its ornamentation has suggested the varietal name *eximia* which has been selected.

Asterolampra decora, Grev., var. nov. (Plate XVI. fig. 9.)

The frustule here shown bears a strict analogy to the *Asterolampra decora* of Greville. The designation *punctiform*, however, which has been applied to the latter,[2] cannot be given to the cellules of the present specimen, which possesses nineteen rays instead of the variable number—five to fourteen—recorded by Greville in the course of his examination of twenty-five specimens of the typical species. Such distinctions seem to indicate clearly the varietal character of the present Diatom.

Heterodictyon, Grev.

Greville established the genus *Heterodictyon* in the year 1863, in his interesting paper on new and rare Diatoms published in the Transactions of the Microscopical Society of

[1] *Micr. Journ.*, vol. viii. p. 113, pl. iv. fig. 21 = *Asteromphalus grevillii*, Wall., *Micr. Journ.*, vol. viii. p. 47, pl. ii. fig. 15.

[2] *Micr. Journ.*, n. s., vol. ii. p. 45, pl. vii. figs. 4–6.