

area of indefinite outline and submarginal spines, one of which occurs in the middle of each fasciculus. The granulation is fasciculate—a circumstance which prevents me from determining the genus to which the frustule belongs, as other species belonging to this group and possessing a similar condition of striation are unknown to me. Should similar forms be recorded in future, they must be regarded as normal, and not as teratological, or should a species of *Omphalopelta* be discovered with fasciculate striation, the present specimen may probably be attributable to that species.

*Omphalopelta parda*, n. sp. (Plate XVIII. fig. 9.)

Forma magna, rotunda, in sexdecim dissepimentis alterne elevatis et depressis divisa; margine striato et granulorum corona cincto; dissepimentis depressis brevi radio ad verticem instructis, elevatis; denticulo in media basi; superficies celluloso punctata; area umbilicalis indefinita. In mari Pacifico.

This superb discoidal Diatom was procured from mud, which was brought up from a depth of 1875 fathoms near Japan. The disc is bounded by a well-defined striated border, which is provided on its inner side with a corona of granules. Interiorly it is divided into sixteen cuneiform compartments, which start from a smooth central area, with indefinite outline. These compartments are alternately elevated and depressed, the latter appearing flat, while the former are longitudinally ridged in a roof-like manner. Each of the depressed segments is marked at its vertex by a radial line which soon vanishes, while each of the elevated areas bear a denticule near the margin, and at the middle of the basal side; this denticule is united to the central area by means of a narrow linear space. The valve is punctated in a decussate manner, and presents ill-defined traces of areolation, especially in the elevated compartments. Each of the depressed segments presents a remarkable smooth broadly linear area at its base: in this no trace of striation could be determined.

According to the amended definition which has been given above, this very attractive Diatom must be classed in the genus *Omphalopelta*; but, apart from this emendation, it should be ascribed to that of *Actinoptychus*, Ehrenb.

*Omphalopelta shrubsoliana*, n. sp. (Plate XXIII. fig. 2.)

In sex dissepimentis alternis triangularibus distinctum; area umbilicali hyalina subhexagonali; dissepimentis decussatim granulatis, alterne inermibus et spina a margine dissita instructis. Dissepimenta medio turgescunt. Ad Zebu.

This disc was collected in the Channel of Zebu, among the Philippine Islands. It is divided into six triangular segments, of which the alternate ones are similar to each other. These compartments are granulated in a quincuncial manner, and are slightly swollen at the centre. Each of the three alternate segments whose apices are transversely truncated