

EXPLANATION OF THE PLATES.

With the exception of Pls. XIII., XIX.^a, XXVII., and XXVIII., which were drawn on stone by Mr A. Sonrel, of Pls. X.^a, X.^b, XIX., XXIX., XLIV., XLV., drawn by Mr Trouvelot, and Pls. XXXVI., XXXVII., XLII., and XLIII., drawn by Mr Meisel, the other plates were all lithographed by Mr Paulus Roetter, who had gained considerable experience in drawing Echinids while making the plates of the Revision of the Echini. The general views were drawn by him directly on stone from nature; the greater part of the structural drawings were copies of sketches which I made myself to illustrate the details of parts to be seen only from preparations of the test. The greater number of the figures of Pedicellariæ, drawn on stone by Mr Meisel and by Mr Trouvelot, were drawn by myself, with the exception of some drawings on the plates of Pedicellariæ, and of the sections of spines, drawn from nature by Mr James H. Blake. The sections of spines were made by Mr A. A. Julien, of the Columbia School of Mines.

PLATE I.

Cidaris (Dorocidaris) bracteata, A. Ag. (fig. 1), p. 37.

Fig. 1. Primary radiole.

Cidaris tribuloides, Bl. (figs. 2-6), p. 36.

- „ 2. Small specimen of *Cidaris tribuloides*, measuring 18 mm. in diameter, in which the radioles have the shape characteristic of *Phyllacanthus verticillata*.
- „ 3. A single primary radiole magnified ($\frac{1}{4}$).
- „ 5. A smooth primary radiole similar to those of the lower side of the test in *Cidaris tribuloides* ($\frac{1}{4}$).
- „ 6. Another primary radiole, in which the verticillation is not so marked as in fig. 3 ($\frac{1}{4}$).

Goniocidaris florigera, A. Ag. (figs. 7-20), p. 46.

- „ 7. A specimen (n.s.) seen from the abactinal side, in which the spines are all of the shape of figs. 8-11, and quite uniform in their appearance.
- „ 8, 9. Primary radioles, with sharp spines of fig. 7.