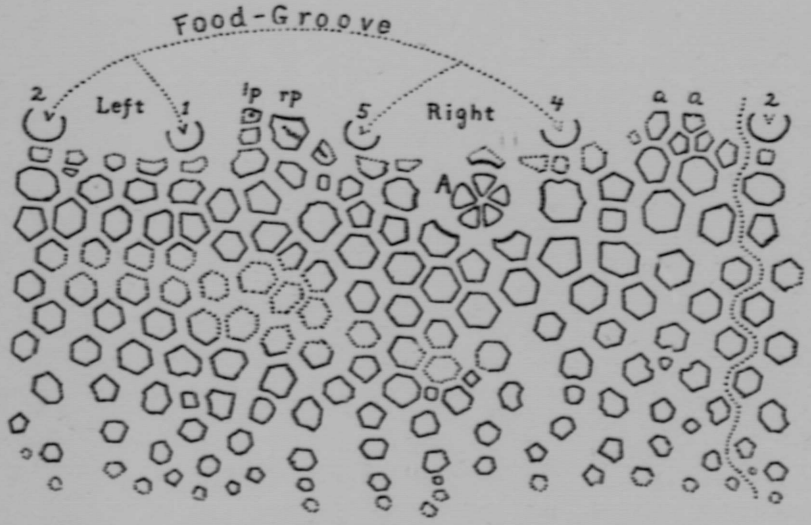
plates extends sufficiently beneath the base of the protuberance to suggest the origin of the latter as an accessory stereom deposit upon the surface of the theca, necessitated by the demands for support made by the growing arms.

The degree of compression of the undistorted theca is moderate, the horizontal diameter from front to rear equalling about .80 to .84 of the lateral diameter. Specimens preserved in soft clay frequently present a much greater degree of compression, due to distortion after death. The length of the theca equals about ten-sevenths of the greatest transverse diameter.



Text figure No. 1. Diagram of the thecal plates of the specimen represented by figure 1 on plate II. The plates on the right of the vertical sinuous line on the right side of the figure duplicate those at the left margin of the diagram. The anterior peristomial plates are lettered *a*, *a*; the right and left posterior peristomial plates are lettered *rp* and *lp*, respectively. The relative position of the different arm facets is indicated by the numbers *2*, *1*, *5* and *4*, explained in the text. The dotted line indicates diagrammatically the transverse apical food-groove which forks at each end, each branch leading to the base of one of the arms, the latter being arranged in pairs. The anal pyramid is indicated at A. The linear hydropore extends from the middle of plate *rp*, diagonally downward and toward the right, as far as the middle of the adjoining plate.

Viewed from a direction at right angles to the plane of symmetry passing vertically through the theca, and parallel to the transverse apical food-groove, the sides of the theca differ slightly in outline. On the anal side the outline is more angularly convex, the maximum convexity being near midlength. On the opposite side the maximum convexity tends to be distinctly less curved. This difference in outline evidently is due to the location of the anus which has been dragged sufficiently