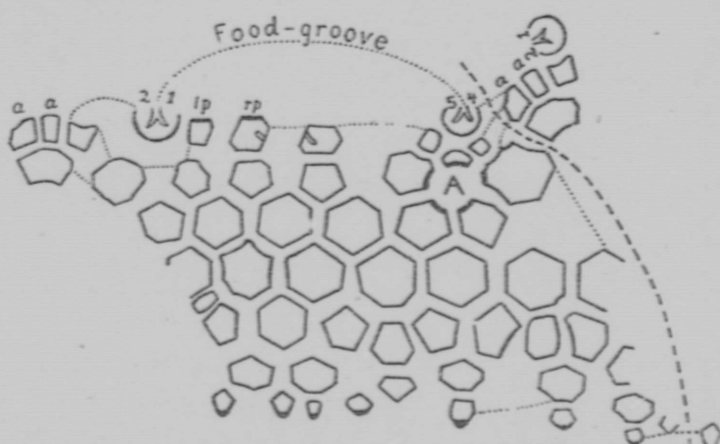


The height of the type specimen equals 39 millimeters, the lateral diameter is 34 millimeters, and the diameter from front to rear is 30 millimeters. The top of the column at its junction with the theca was 6 millimeters in diameter. The left half of the apical transverse food-groove, with its bifurcation on the proximal side of the stereom mass supporting the left pair of arms is distinctly shown, but the right half and all adjacent parts, including the anal area, are missing. Both the apical area, as far as preserved, and the basal series of thecal plates appear compressed in a vertical direction, and there is no reason, judging from other specimens, for believing that the horizontal position of these basal plates is a specific characteristic.

Most of the specimens of *Comarocystites shumardi* so far seen exceed 25 millimeters only slightly in length. In thecal plates 6 millimeters in width, the depth of the concavity may equal 1.7 millimeters. At the bottom of the concavity there frequently is found a circular flattened or slightly convex area, about three-fourths of a millimeter in diameter.



Text figure No. 5. Diagram of the thecal plates of the specimen represented by figures 1A, 1B, on plate IV. The plates on the right side of the vertical sinuous dotted line on the right side of the diagram duplicate some of the plates at the extreme left of the diagram. The anterior peristomial plates are lettered a, a; the right and left posterior peristomial plates are lettered rp and lp respectively. From plate rp the linear hydropore extends diagonally downward and toward the right toward the middle of the next plate. The relative position of the four arms is indicated by the numbers 2, 1, 5, 4. The location of the anus is indicated by the letter A. The basal plates in actual contact with the top of the column, seven in number, are heavily margined at the bottom. Several of the thecal plates on the left side of the specimen are missing.

In the specimen in the Chicago University Museum, illustrated by figures 1A and 1B on plate IV, the area surrounding the anus is