

rhombs are on a line with the mouth, the lower close to the base. These rhombs are not double, (as they are in *A. elegans*, Hall), but single, i. e., the two triangles, of which each is composed, have their bases in contact, the elongated portion being continuous across the suture between the two plates on which each rhomb is situated. Regarding the side in which the mouth is placed as anterior, and the interbrachial spaces on each side of and next to it as the right and left sides, the rhombs are thus disposed:—the left hand rhomb has its longer diagonal extending obliquely downwards and backwards, at an angle of about 30° with the axis of the fossil:—the right rhomb has its longer diagonal very nearly at right angles to the axis:—the basal rhomb is mostly situated in the posterior interbrachial space on the left hand side and slopes downwards and backwards at an angle of about 45° , its lower angle passing under the third arm from the mouth. The arms are grooved along the middle, and have four or five pinnulæ on each side. The surface is covered with irregular elevated lines which in some places unite so as to inclose small polygonal spaces, giving to such parts a pitted aspect. Length, 7 lines; greatest diameter about $4\frac{1}{2}$ lines. Only one specimen has been collected. *A. elegans*, Hall, has only four arms and the two halves of the rhombs separated. Grimsby; Niagara formation. J. Pettit.



Fig. 28.

Fig. 28.—*Apiocystites Huronensis*. A specimen partly buried in stone.

A. HURONENSIS, n. sp.—The specimen is partly buried in stone and its generic characters cannot be ascertained. The plates are moderately convex, depressed at the sutures. The rhomb at the base is one-half on a basal plate, and one-half on a plate of the second series. In the upper part is another rhomb, one-half of which is on a plate of the third series, and the other apparently on a plate of the fourth. The lower half, however, of the basal rhomb, and the upper half of the upper rhomb are not distinctly seen. As no arms are visible, it seems certain that this species is not a true *Apiocystites*. The position of the rhombs also favours this view. The specimen was found near Cabot's Head, on the shore of Lake Huron. Clinton; or Niagara formation. A. Murray, Esq.

A. ? TECUMSETHI, n. sp.—This name is proposed for a Cystidean collected by Prof. R. Bell and H. G. Vennor, on Manitoulin Island in 1865. Only detached plates and fragments of the column were found. Most of the