seemingly prolonged till it equals the length of a pedicel, and then a new calycle is developed, with a regenerated hydra head.

## SECTION II.

## CLITA (TROCHOPYXIS) BICOPHOBA .IG.

Proles hydroilea. Adull.- The habitat of this species is the same as that of C. poterium, but it is not so abundant as the latter. It may be found from Grand Menan Islaud, at the extreme eastern coast of Maine, all along the New England coast, to Vineyard Sound, south of Cape Cor. The main stem (PI. XXIX. Fig. 6, g) is stolonic, and either smooth or tortuous, while the perlicels (A-(1), which arise from it at right angles, are more or less distinctly ringed, from base to apex. At some points the rings are twice as broad as deep (Fig. T, $c^{2}$ ), at others they are equal in breadth and depth, and so on in all intermediate proportions. Occasionally the pedicels are bramched, not only once (Fig. (i, B), but twice and three times ( $\mathrm{F} a b c$ ); but as this is not a common occurrence, and, moreover, since now and then a gemmiferous calycle ( $\mathrm{E}, d$ ) arises from the pedicels, we are inclined to look upon the branching pedicels in the light of erect stolons, if such a distinction can be made.

As regards size, this species is, on the average, a little smaller than C. poterium, but the most luxurious specimens (Fig. 6) fully equal the latter. The calyele (Fig. 7) of the sterile hydra is deeply campanulate, and the depth compares to the breadth as three to two (Fig. 6). When the hydra is retractel, the sides of the calycle are more or less collapsed (Fiy. 7 ), and then the proportions between its depth and breadth are more nearly as two to one. The edge of the calycle is deeply indented (Fiys. 7 and $7^{b}, c^{\top}$ ), or scalloped, into twelve or fourteen divisions, and broad triangular teeth $\left(c^{\circ}\right)$ alternate with the sinuses $\left(c^{\circ}\right)$. When the calyele is entirely empty, or the hydra is fully expanded (Fiy. ©, F), the outline of the edge is circular; but when the hydra is contracted, the calycle becomes folded longitudinally (Figs. $\overline{7}, 7^{2}$, and $7^{4}$ ) in such a mamer that the tecth ( $c^{6}$ ) correspond to the broad furrows, which are depressed inwardly, whilst the sinuses ( $c^{\top}$ ) project sharply outward, along with the ridges which bound the furrows; and thus, in a view from the end of the calycle, the teeth form the sides of a spherical polyhedron, and the sinuses constitute the projecting angles. At the base, the wall of the calycle is about as thick as that of the pedicel, but it gradually thins out toward the edge. The semi-partition (Fig. 7, c) is no thicker than the

