

over the brachials at about one fourth the width of the plates from their margins, as fine, raised ridges; these fork near the upper edge of IBr (first primibrach), and again just as they leave the IAx; the outer branch in each case remains the stronger but becomes very faint on IIBr<sub>1</sub>. The first secundibrach (IIBr<sub>1</sub>) is about twice as wide as high and the pentagonal IAx presents approximately the same area of surface. These plates seem to be ornamented only by what appear to be faint nerve ridges and their branches which present some very faint reticulations. No ray seems to have possessed a plate between IBr<sub>1</sub> and IAx. Each interradius has one large plate in contact with the basals, and six or seven plates in addition, one of which may be as large or slightly larger than the first; directly over these the pinnules from IIBr<sub>1</sub>, with their plates somewhat enlarged, meet each other and are incorporated in the cup. The 10 arms, thus brought closely together, are comparatively large, biserial and, with their pinnules, obovate in outline; the IIBr counted on one side number 35 and over and are strong and rounded on the back; the pinnules are closely set and the longest measure about 5mm; the whole arm is very plumelike in appearance and the manner of folding over the cup extremely graceful. This folding is a mixture of the convolute and imbricate and is shown in figure 5.

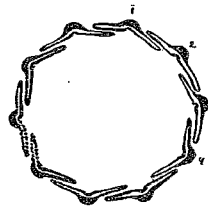


Fig. 5 Diagrammatic cross-section of *Lyriocrinus? beecheri* showing the manner in which the arms are folded over the tegmen.

**Observations.** The crushed condition of the cup has made the determination of the arrangement of the plates of the interradii a somewhat difficult matter. In my drawing of this plate arrangement (fig. 4), I have outlined only such plates as were present and in, or nearly in, their normal position. In one or two instances a fracture may have been taken for a suture. The complete interradius to the right in the cut was drawn from plates crushed in just below the first incorporated pinnules and perhaps should have one or two additional small plates near the latter. The completed interradius placed in the position of 1. anterior IR apparently has had its basal, the top of which is broken across, forced to one side. This inter-