

tral in form, with the outer angle round, the sides slightly concave, the marginal angles prominent, and the inner face a little convex and generally smooth, except toward the end, where it begins to enlarge. Although so slender, these arms are very strong and elastic. The terminal portion, bearing the suckers, is 30 inches in length and expands gradually to the middle, where it is 4.5 to 5 inches in circumference (6 inches when fresh), and 1.5 to 1.6 across the inner face. The sucker-bearing portion may be divided into three parts. The first region occupies about 7 inches, in which the arm is triquetral, with margined lateral angles, and gradually increases up to the maximum size, the inner face being convex and bearing about forty irregularly scattered, small, flattened, saucer-shaped suckers, attached by very short pedicels, and so placed in depressions as to rise but little above the general surface. These suckers have narrow marginal rings, with the thin edges nearly smooth, or minutely denticulate, and .10 to .12 of an inch in diameter, surrounded by a thick and prominent marginal membrane. These suckers are at first distantly scattered, but become more crowded as the arm increases in breadth, until they form five or six very irregular rows, covering the whole width of the inner face, which becomes here 1.6 inches broad. Scattered among these suckers are about as many low, broad, conical, smooth, callous verrucae, or wart-like prominences, rising above the general surface, their central elevation corresponding in form and size to the apertures of the adjacent suckers. These, without doubt, are intended to furnish secure points of adhesion for the corresponding suckers of the opposite arm, so that, as in some other genera, these two arms can be fastened together at this wrist-like portion, and thus they can be used unitedly. By this means they must become far more efficient organs for capturing their prey than if used separately. Between these smooth suckers and the rows of large ones there is a cluster of about a dozen small suckers, with serrate margins, mostly less than a quarter of an inch in diameter, attached by slender pedicels, and with an oblique marginal ring, strongly and sharply serrate on the outer margin.

The second division of the sucker-bearing part of the arm succeeds the small suckers. Here the arm is well rounded on the back and flattened on the face, where it bears two alternating rows of very large serrate suckers, and an outer row of small ones on each side, alternating with the large ones. The inner edge is bor-