

fact that they collapse greatly when taken from the water. The circumference of the body given above may, therefore, be considerably too small. In that case the figure represents the body more slender than it should be. The head was probably at least equal to one-fifth the length of the body. The eight shorter arms, when fresh, were, according to Mr. Harvey's measurements, six feet long and all of equal length, but those of the different pairs were respectively ten, nine, eight and seven inches in circumference. In alcohol they have shrunk considerably, both in length and diameter. They are three-cornered or triquetral in form and taper very gradually to slender acute tips. Their inner faces are occupied by two alternating rows of large obliquely campanulate suckers, with contracted apertures surrounded by broad, oblique, marginal rings, armed with strong, acute teeth



around their entire circumference, but largest and most oblique on the outside (fig. 3). These suckers gradually diminish in size to the tips of the arms, where they become very small, but are all similar in form and structure. The largest of these suckers are said by Mr. Harvey to have been about an inch in diameter, when fresh. The largest of their marginal rings in my possession are .65 of an inch in diameter, at the serrated edge, and .75 beneath. The rings of the smaller suckers are more oblique and more contracted at the aperture, with the teeth more inclined inward, those on the outside margin being largest. The two long tentacular arms are remarkable for their slenderness and great length when compared with the length of the body. Mr. Harvey states that they were each 24 feet long and 2.75 inches in circumference when fresh. In the brine and alcohol they have shrunk greatly, and now measure only 13.5 feet in length, while the circumference of the slender portion varies from 2.25 to 3.25 inches. These arms were evidently highly contractile, like those of many small species, and consequently the length and diameter would vary greatly according to the state of contraction or relaxation. The length given (24 feet) probably represents the extreme length in an extended or flaccid condition, such as usually occurs in these animals soon after death. The slender portion is three-cornered or trique-