

of adherence, comes strongly into profile, and, on this account, the nerve-like appearance of its thickness is more apparent than at any other part; but when the disk is uncontracted, and the innermost wall presses uniformly against the whole surface of the middle one, it is possible to observe this same appearance (Pl. XIX. *Fig. 16, g¹*) anywhere between these eight points. Looking at the disk from above, the innermost wall, where it bends downwards to become the outer wall of the proboscis, resembles, in profile, a quadrangularly-disposed cord (Pl. XIX. *Fig. 20, c²*), surrounding the inner wall (*c³*) of the proboscis like a nervous ring. At the junction of the transverse partition with the edge of the disk (wood-cut 19), the innermost wall bends upon itself at right angles, and there (Pl. XIX. *Fig. 17, c¹*), again, when looking across the edge of this angle, its thickness appears like a nervous ring, running along the inner edge of the circular tube. The statement, in my paper on *Sarsia*, Mem. Amer. Acad. of Sc. and Arts, Vol. IV. pp. 246 and 247, that these *Aculephs* have a specialized nervous system, was based upon these appearances.

The tentacles are highly developed (Pl. XX. *Fig. 9*), and covered with numerous groups of bristling lasso-cells (*b b*), admirably adapted to perform the functions for which they are designed. Even at this early period the proboscis has all the flexibility of the adult; this is manifested in a curious way sometimes, by revealing the edge of the mouth so that it doubles upon the superior portion of the proboscis for a considerable distance (Pl. XX. *Fig. 7, a*), and then again redoubles in a downward direction (*Fig. 7, b*), upon the first fold. When the disk is in a contracted state, we may oftentimes see, in a view from above, a remarkable arrangement of wrinkles. In the centre, directly over the proboscis, these corrugations form two concentric, quadrilobate rosettes (Pl. XVIII. *Fig. 18*), each lobe being situated directly above a radiating tube. From the end of each lobe two parallel rows of wrinkles proceed about half way down, toward the lower edge of the bell-shaped disk, including, on their way, a deep furrow (*a*), the bottom of which lies close to the chymiferous tube. Parallel to these wrinkles, two other double rows (*b*) run from each side of a lobe of the rosette, half way down the disk; and a double row (*c*) also starts from the angles between the lobes, and runs outwards in a direction forty-five degrees from the trend of the other rows, and only half as far down the disk. At the lower termination of the rows of wrinkles a band of the same nature runs horizontally around the disk, following all the sinuosities of the umbrella.

In order to complete the proof that the hydroid form of *Coryne mirabilis* is the parent of our full-grown *Sarsia mirabilis*, an attempt was made to rear the young medusæ freed from the hydra. In this attempt a partial success was obtained. In six days from the time of birth, the medusæ increased from one sixteenth to