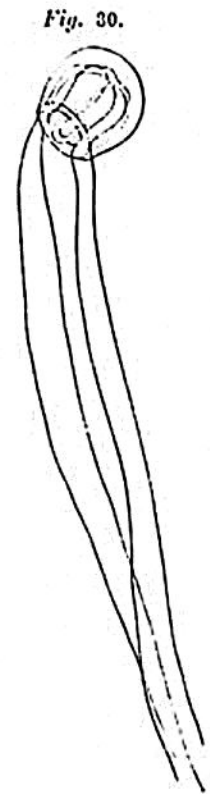
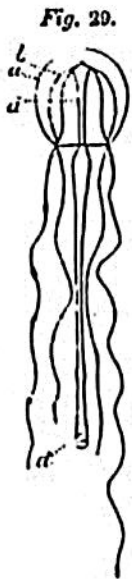


the quick contractions, which press the water out of the main cavity with such force as to push rapidly the whole body forward in an opposite direction. After each contraction, and during the onward movement arising from it, the tentacles point directly backward. During each contraction they are considerably shortened, and elongate gradually in the progress of locomotion.

This animal seems very well to understand how to direct its course by its contractions, as it darts downward if it be near the surface of the water when starting, or moves sideways if it be near the walls of the jar, or rises upward if it be at its bottom. It may suddenly change its direction, if it meets with an obstacle, turn once or twice upon itself, in a revolving curve, and then dart again, suddenly, straight forward, in any given direction. Of course, the changes of form which it assumes,

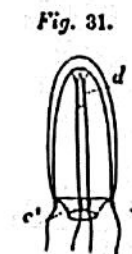
in these different movements, are almost endless.<sup>1</sup> What increases the variety of its aspects beyond the change of form of the main body, the shortening and elongating of the tentacles, and the shutting and opening of the main cavity, is the disposition of the proboscis, which is either entirely contracted within the main cavity, near its upper centre, or hangs down to the margin of the opening, or stretches out between the tentacles to two or three times the length of the body (wood-cut 29. *d*), in either a straight line, or variously bent in graceful undulations, or curved upon itself (wood-cut 30). Though the usual form of these animals is rounded, it may be seen at times to contract in such a manner as to



assume a flattened shape in its lower part by the compression of its sides; and this is especially the case when the animal turns round upon itself, and changes its direction in its movements.

or the bell elongates to such an extent as to become cylindrical and twice as high as broad (wood-cut 31).

Again, when it pauses, and remains in a state of rest for a longer time, the lower margin is frequently seen to assume a square or quadrangular form; especially when it is perfectly immovable, and the tentacles are stretched out at right angles from the lower margin for a considerable length (Pl. XVIII. *Fig.* 17). On watching minutely its outline, it will be observed that the sides are not always circular, but from the contraction of the layers or bundles of motory cells, it assumes a quadrilobate appearance (Pl. XVIII. *Fig.* 18).



<sup>1</sup> A very full description of this species may be found in my paper on Acalephs, in the 4th Vol.

of the Memoirs of the Amer. Acad. of Arts and Sciences, 1860, with numerous figures.