

which are fringed with rows of cilia, bearing a great resemblance to a crown wheel. This wheel appears to be incessantly revolving, and generally in one constant direction; giving to the fluid a rotatory impulse, which carries it round in a continual vortex. The constancy of this motion would seem to indicate that it is related to some function of vital importance, such as respiration. But even considered as a mechanical action, which is the view we have now to take of it, this phenomenon is of a nature to excite much curiosity; for the continued revolution round an axis of any part or appendage to the body, is quite inconsistent with any notion we can form of the solid organic attachment of such appendage; and we can have no conception of organization extending through the medium of a fluid, or of any substance, which, like a fluid, admits of the continual displacement of its parts. M. Dutrochet has offered an ingenious solution of this difficulty. He suggests that the revolution of the wheels of the Rotifera may not be real, but apparent only.\* The indented margin of each wheel being composed of a material so exceedingly flexible as to be capable of assuming quickly all kinds of curvatures, may be conceived to be thrown into undulations, which follow one another round the circumference; each part, in succession, becoming alternately convex and concave, and thus producing the appearance of the actual advance of the portions that are raised; while their real motions are only those of elevation and depression, by the alternate elongation and contraction of their perpendicular fibres.

Besides possessing extensive powers of locomotion, the infusoria manifest in several of the vital functions, as we shall hereafter find, a degree of complication, which appears to entitle them to a higher station in the animal scale, than that which most naturalists have assigned to them. They are certainly superior to the sponges or polypi, doomed by nature to be permanently fixed, like plants, to the same spot; and of which, if we consider them as compound beings, the

\* The same opinion was advanced long ago by Vicq. d'Azyr.