

direction, and terminate in larger openings. The minute pores through which the water is imbibed, have a fine transverse gelatinous net-work, and projecting spicula, by which large animalcules or noxious particles are excluded. Water incessantly enters into the small pores, traverses the cells or tubes, and is finally ejected from the large vents. But the pores of the sponge have not the power of contracting and expanding, as Ellis supposed; the water is attracted to these openings by the action of instruments of a most extraordinary nature, by which currents are produced in the fluid, and propelled in the direction required by the economy of the animal.

8. CILIA, OR VIBRATILE ORGANS.\*—Although these organs, which are termed *cilia*, or hair-like instruments, are not confined to the class of animals which form the subject of this inquiry, yet, as they play so important a part in the economy of the zoophytes and crinoidea, it will be necessary to define their structure and functions; and I shall avail myself of the highly interesting remarks of my friend Dr. Grant, and of Dr. Sharpey, on this subject, as well as on the anatomy and physiology of the polyparia, hereafter to be noticed.† The cilia resemble very minute hairs, and are only visible with the microscope; they are situated in

\* From *cilium*, eye-lash.

† On the Nervous System of the *Beroë pileus*, Zoological Transactions, vol. i. p. 10. Outlines of Comparative Anatomy,