

ing to invisible points at their extremities: they strike the water by a rapid succession of inflections, apparently made without any regular order, but conspiring to give an impulse in a particular direction. When the body is attached by its tail, or narrow end, to some fixed object, the motion of the cilia on the fore part of the body determines a current of fluid to pass in a direction backwards, or towards the tail; but when they are floating in the water, the same action propels them forwards in the opposite direction, that is, with the broad ciliated extremity foremost. They thus advance, without appearing to have any definite object, by a slow gliding motion, totally unlike the zig-zag course of animalcules in search of prey. Yet they appear to have a consciousness of impressions made on them; for on striking against each other, or meeting any obstacle, they retard a little the motion of their cilia, wheel for a few seconds round the spot, and then, renewing the vibrations, proceed in their former course.

In about two or three days after these gemmules have quitted the body of the parent, they are observed to fix themselves on the sides or bottom of the vessel in which they are contained; and some of them are found spread out, like a thin circular membrane on the surface of the water. In the former case, they adhere firmly by their narrow extremity, which is seen gradually to expand itself laterally, so as to form a broad base of attachment. While this is going on, the cilia are still kept in rapid motion on the upper part, scattering the opaque particles which may happen to be in the fluid, to a certain distance around. But these motions soon become languid, and, in the course of a few hours, cease; and the cilia, being no longer wanted, disappear. The gemmule then presents the appearance of a flattened disk, containing granules, like the flesh of the parent sponge; and also several spicula interspersed through the central part. In less than twenty-four hours, a transparent colourless margin has extended round the whole gemmule, and continues to surround it during its future growth. The spicula, which were at first small, confined to the central part, and not exceeding twenty in number, now become much larger and more numerous;