

readily reproduced. Salamanders even possess the faculty of reproducing parts of the head, including the eye with all its complicated structure. Something similar takes place in our own bodies, when a new skin is formed over a wound, or when a broken bone is reunited.

332. In some of the lower animals, this power of reparation is carried much farther, and applies to the whole body, so as closely to imitate fissiparous reproduction. If an earthworm, or a fresh-water polyp, be divided into several pieces, the injury is soon repaired, each fragment speedily becoming a perfect animal. Something like this reparative faculty is seen in the vegetable kingdom, as well as the animal. A willow branch, planted in a moist soil, throws out roots below and branches above; and thus, after a time, assumes the shape of a perfect tree.

333. These various modes of reproduction do not exclude each other. All animals which propagate by gemmiparous or fissiparous reproduction also lay eggs. Thus the fresh-water polyps (*Hydra*) propagate both by eggs and by buds. In *Vorticella*, according to Ehrenberg, all three modes are found; it is propagated by eggs, by buds, and by division. Ovulation, however, is the most common mode of reproduction; the other modes, and also alternate reproduction, are only additional means employed by Nature to secure the perpetuation of the species.

## SECTION II.

### ALTERNATE AND EQUIVOCAL REPRODUCTION.

334. It is a matter of common observation, that individuals of the same species have the same general appearance, by which their peculiar organization is indicated. The trans-