

as to the correctness of the observations. But the researches of Bonnet and of Spallanzani, who repeated the experiments of Trembley, have borne ample testimony to their accuracy, which those of every subsequent observer have farther contributed to confirm.

The experiments of Trembley have also proved that every portion of the hydra possesses a wonderful power of repairing all sorts of injuries, and of restoring parts which have been removed. These animals are found to bear with impunity all sorts of mutilations. If the tentacula be cut off, they grow again in a very short time: the whole of the fore part of the body is, in like manner, reproduced, if the animal be cut asunder; and from the head which has been removed there soon sprouts forth a new tail. If the head of the hydra be divided by a longitudinal section, extending only half way down the body, the cut portions will unite at their edges, so as to form two heads, each having its separate mouth, and set of tentacula. If it be split into six or seven parts, it will become a monster with six or seven heads; if each of these be again divided, another will be formed with double that number. If any of the parts of this compound polypus be cut off, as many new ones will spring up to replace them; the mutilated heads at the same time acquiring fresh bodies, and becoming as many entire polypi. Fig. 245 represents a hydra with seven heads, the result of several operations of this kind. The hydra will sometimes of its own accord split into two; each division becoming independent of the other, and growing to the same size as the original hydra. Trembley found that different portions of one polype might be ingrafted on another, by cutting their surfaces, and pressing them together; for by this means they quickly unite, and become a compound animal. When the body of one hydra is introduced into the mouth of another, so that their heads are kept in contact for a sufficient length of time, they unite and form but one individual. A number of heads and bodies may thus be joined together artificially, so as to compose living