

following the progressive development of the organs, he observes them undergoing various modifications, as they are assuming new forms, which characterize certain definite epochs in the general growth of the system. In a great number of instances, especially among the lower orders of animals, he witnesses the same individual being acting, in its time, a variety of different parts; often reappearing on the stage of life with new organs, new faculties, and new conditions of existence, and undergoing metamorphoses as complete as any that have been depicted in the fables of antiquity.

The period at length arrives when the animal, having completed its growth, attains the maturity of its being, and acquires the full possession of its powers. Every organ in succession has received its entire development, and has united its energies with those which had been before perfected. Yet, however complete the arrangements that have thus been established, it is still necessary, in order to preserve the whole system in a state in which it may be capable of exercising the functions of life, that the materials which compose its fabric should undergo a certain, slow, but constant renovation; and the same circle of actions and reactions, which have brought it to its state of perfection, must continue to be repeated, in order that a due proportion may be maintained between the consumption and the supply of these materials. In the course of a certain time, however, even under the most favourable circumstances, this equilibrium begins to fail: the energies of the system decline, and the processes of nutrition are insufficient to repair the waste in the substance of the body. The fluids are dissipated faster than they can be renewed; the channels through which they circulate are more and more obstructed, and at length cease to be pervious; and the solids gradually become hard and rigid. As in a machine of which the wheels are worn, and the springs have lost their elastic force, so in the animal body, at an advanced age, the slightest additional impediment that occurs will stop the movements of the