

CHAPTER TWELFTH.

METAMORPHOSES OF ANIMALS.

366. UNDER the name of metamorphoses are included those changes which the body of an animal undergoes after its birth, and which are modifications, in various degrees, of its organization, form, and its mode of life. Such changes are not peculiar to certain classes, as has been so long supposed, but are common to all animals, without exception.

367. Vegetables also undergo metamorphoses, but with this essential difference, that in vegetables the process consists in an addition of new parts to the old ones. A succession of leaves, differing from those which preceded them, comes on each season; new branches and roots are added to the old stem, and woody layers to the trunk. In animals, the whole body is transformed, in such a manner that all the existing parts contribute to the formation of the modified body. The chrysalis becomes a butterfly; the frog, after having been herbivorous during its tadpole state, becomes carnivorous, and its stomach is adapted to this new mode of life; at the same time, instead of breathing by gills, it becomes an air-breathing animal; its tail and the gills disappear; lungs and legs are being developed, and, finally, it is to live and move on land.

368 The nature, the duration, and importance of metamorphoses, as also the epoch at which they take place, are infinitely varied. The most striking changes which naturally present themselves to the mind when we speak of metamor-