

mission of these characteristics, from one generation to the next, is justly considered as one of the great laws of the Animal and Vegetable Kingdoms. It is, indeed, one of the points on which the definition of species is generally founded. We would, however, unhesitatingly adopt the new definition of Dr. S. G. Morton, who defines species to be "primordial organic forms."

335. But it does not follow that animals must resemble their parents in every condition, and at every epoch of their existence. On the contrary, as we have seen, this resemblance is very faint, in most species, at birth; and some, such as the caterpillar and the tadpole, undergo complete metamorphoses before attaining their final shape as the butterfly and frog. Nevertheless, we do not hesitate to refer the tadpole and the frog to the same species; and so with the caterpillar and the butterfly; because we know that there is the same individual observed in different stages of development.

336. There is, also, another series of cases, in which the offspring not only do not resemble the parent at birth, but, moreover, remain different during their whole life, so that their relationship is not apparent until a succeeding generation. The son does not resemble the father, but the grandfather; and in some cases the resemblance reappears only at the fourth or fifth generation, and even later. This singular mode of reproduction has received the name of *alternate generation*. The phenomena attending it have been of late the object of numerous scientific researches, which are the more deserving of our attention, as they furnish a solution to several problems alike interesting in a zoölogical and in a philosophical point of view.

337. Alternate generation was first observed among the Salpæ. These are marine mollusks, without shells, belonging to the family Tunicata. They are distinguished by the curious peculiarity of being united together in considerable numbers so as to form long chains, which float in the sea,