This very remarkable fact appears in a more striking way in the lower animals and plants than in the higher, and especially in the well-known phenomenon of *alternation of generations* (metagenesis). Here we very frequently find—for example, among the Planarian worms, sea-squirts or Tunicates, Zoophytes, and also among ferns and mosses—that the organic individual in the first place produces, by propagation, a form completely different from the parental form, and that only the descendants of this generation, again, become like the first. This regular change of generation was discovered by the poet Chamisso, on his voyage round the world in 1819, among the *Salpæ*, cylindrical tunicates, transparent like glass, which float on the surface of the sea. Here the larger generation, the individuals of which live isolated and possess an eye of the form of a horse-shoe, produce in a non-sexual manner (by the formation of buds) a completely different and smaller generation. The individuals of this second smaller generation live united in chains and possess a cone-shaped eye. Every individual of such a chain produces, in a sexual manner (hermaphrodite) again, a non-sexual solitary form of the first and larger generation. Among the Salpæ, therefore, it is always the first, third, and fifth generations, and in like manner the second, fourth, and sixth generations, that are entirely like one another. However, it is not always only one, but in other cases a number of generations, which are thus leapt over; so that the first generation resembles the fourth and seventh, the second resembles the fifth and eighth, the third resembles the sixth and ninth, and so on. Three different generations alternate with one another; for example, among the neat *little sea-buoys* (Doliolum), small