APPENDIX.

sexual generation, vol. i. p. 192), from adhering hydroid polyps (2,3). These latter, however, originate out of the fructified eggs of the medusæ (therefore by sexual generation, vol. i. p. 195). Hence the non-sexual, adhering generation of polyps (I., III., V., etc.) regularly alternates with the sexual, freely swimming generation of medusæ (II., IV., VI., etc.) This alteration of generation can only be explained by the Theory of Descent.

The same remark applies to a kindred form of propagation, which is still more remarkable, and which I discovered in 1864, near Nice, in the Elephant-jellies (Geryonida), and called allcogony, or allæogenesis. In this case two completely distinct forms of medusa are descended from one another; the larger and more highly developed generation (11), Geryonia, or Carmarina, is sixrayed, with six foliated sexual organs, and six very movable marginal filaments. From the centre of its bell-shaped cup, like the tongue of a bell, hangs a long proboscis, at the end of which is the opening of the mouth and stomach. In the cavity of the stomach is a long, tongue-shaped bunch of buds (which on Plate VII. (n) is extended from the mouth on the left like a tongue). On this tongue, when the Geryonia is sexually ripe, there bud a number of small medusæ. They are, however, not Geryoniæ, but belong to an entirely distinct but very different form of medusa, namely, to the genus Cunina, of the family of the $\mathcal{E}ginida$. This Cunina (12) is very differently constructed; it has a flat, semi-globular cup without proboscis, consists in early life of six divisions, later of sixteen, and has sixteen bagshaped sexual organs, and sixteen short, stiff, and strongly curved tentacles. A further explanation of this wonderful allœogenesis may be found in my "Contributions to the Natural History of the Hydromedusæ." (Leipzig, Englemann, 1865), the first part of which contains a monograph of the Elephant-jellies, or Geryonida, illustrated by six copper-plates.

Even more interesting and instructive than these remarkable relations are the vital phenomena of the Siphonophora, whose wonderful polymorphism I have frequently spoken of, and described in a popular manner in mylecture on "Differentai-