

CHAPTER IX.

LAWS OF TRANSMISSION BY INHERITANCE.

Theories of Inheritance.—Difference between Transmission by Inheritance in Sexual and Non-sexual Propagation.—Distinction between Conservative and Progressive Transmission by Inheritance.—Laws of Conservative Transmission: Transmission of Inherited Characters.—Uninterrupted or Continuous Transmission.—Interrupted or Latent Transmission.—Alteration of Generations.—Relapse.—Degeneracy.—Sexual Transmission.—Secondary Sexual Characters.—Mixed or Amphigonous Transmission.—Hybrids.—Abridged or Simplified Transmission.—Laws of Progressive Inheritance: Transmission of Acquired Characters.—Adapted or Acquired Transmission.—Fixed or Established Transmission.—Homochronous Transmission (Identity in time).—Homotopic Transmission (Identity in place).—Molecular Theories of Transmission.—Pangeneses (Darwin).—Perigenesis (Haeckel).—Idioplasm (Nägeli).—Germ-plasma (Weismann).—Intracellular Pangeneses (Vries).

THE proper understanding of the two great organic constructive forces of *Inheritance* and *Adaptation* are among the most important advances which, during the last thirty years, our modern theory of development has introduced into the general history of nature. The very complicated interaction of these two forces, together with the ever-varying relations of the struggle for existence, is sufficient for producing the whole variety of forms in the organic world. The earlier school of naturalists, at the