

CHAPTER XII.

DIVISION OF LABOUR AND DIVERGENCE OF FORMS.
PROGRESS AND RETROGRADATION.

Division of Labour (Ergonomy) and Divergence of Forms (Polymorphism).
—Physiological Divergence and Morphological Differentiation both necessarily determined by Selection.—Transition of Varieties into Species.—The Idea of Species.—Hybridism.—Personal Divergence and Cellular Divergence.—Differentiation of the Tissues.—Primary and Secondary Tissues.—Siphonophora.—Change of Labour (Metergy).—Convergence.—The Law of Progress and Perfecting.—The Laws of the Development of Mankind.—The Relation between Progress and Divergence.—Centralization as Progress.—Retrogradation.—The Origin of Rudimentary Organs by Non-Use and Habits discontinued.—The Doctrine of Purposelessness, or Dysteleology.

WHEN we contemplate the historical development of the organic world in its entirety, we meet with, in the first place as the most general phenomena, two great laws, the law of Divergence and the law of Progress. The principle of Divergence or Separation teaches us, in the first place, as a fact—based upon our knowledge of petrifications—that the variety and difference of the living forms on our earth has continually increased from the earliest times up to the present. The second principle, that of Progress or of Perfecting, teaches us—on the same basis of palæontological records—that this divergence has, upon the whole, been