

distinct respiratory organs, or of different parts in the digestive system, etc.; or the union of the sexes in one individual, etc.;—a simplification which reaches its extreme limit among Radiates in the Hydra, and among animals, in the Protozoans.

*b.* Simplicity from equality in parts normally alike; as, equality in the height of the teeth of some of the earliest of Tertiary Mammals; in the annuli of Worms. This case is related to the analytic.

Viewed on the ascending grade, this method is the *differentiative*, the facts exhibiting which are embraced under the well known law of differentiation or specialization, which is fundamental in all development.

Differentiation internally, as it multiplies and perfects the means of elaborating the structure, is attended with an increasingly higher grade of chemical change, more perfect nutrition, and more complete decarbonization of the blood; and implies, therefore, improvement in all tissues, a more sensitive nervous system, and greater cephalic power and activity. And from the reverse comes the reverse effect.

9. *Elliptic*.—Exhibited in the defectiveness, or absence, of segments or members normally pertaining to the type of the *order* or *class* containing the species. The cases are—

*a.* Incomplete, or deficient, segments or members, in either the *anterior*, or the *posterior* portion of the body; as with certain teeth in the Herbivores, toes in the foot of the horse, one or two pairs of antennæ in some inferior Crustaceans.

*b.* Defective, or deficient, senses.

When the deficient parts are only those that are normally deficient in the type of the *order* or *class*, the examples may come under the *simplificative* above. It differs from the *defunctionative* in implying a deficiency not of function only, but of organ or member. The foot of the horse is elliptic, whether viewed with reference to the Animal-type, or the Megasthenic-type. The Fish is elliptic as regards limbs, if considered with reference to the Vertebrate-type, but not so with reference to the Fish-type, unless the fins corresponding to the Vertebrate limbs are wanting.

Viewed on the ascending grade, this method is the *completive*.

10. *Phytozoic*.—Exhibited in a departure from the Animal-type through a participation in structural features of the Plant-type, that is, through a plant-like arrangement of the organs.—The cases are—

*a.* A radiate arrangement of external organs; as in the Bryozoans and inferior Tunicates.

*b.* A radiate arrangement of internal as well as external organs; as in Radiates.

*c.* Perfect, or nearly perfect, symmetry in the radiation, instead