

or stage of the system (for example a class, or an order) comprises a number of larger and stronger branches of the pedigree; every narrower and lower category (for example a genus, or a species) only a smaller and thinner group of twigs. It is only when we thus view the natural system as a pedigree that we perceive its true value. (Gen. Morph. ii. Plate XVII. 397.)

Since we hold fast this genealogical conception of the Organic System, to which alone undoubtedly the future of classificatory Zoology and Botany belongs, we should now turn our attention to one of the most essential, but also one of the most difficult, tasks of the "non-miraculous history of creation," namely, to the actual construction of the Organic Pedigree. Let us see how far we are already able to point out all the different organic forms as the divergent descendants of a single or of some few common original forms. But how can we construct the actual pedigree of the animal and vegetable group of forms from our knowledge of them, at present so scanty and fragmentary? The answer to this question lies in what we have already remarked of the parallelism of the three series of development—in the important causal relation which connects the palæontological development of all organic tribes with the embryological development of individuals, and with the systematic development of groups.

In order to accomplish our task we shall first have to direct our attention to *palæontology*, or *the science of petrifications*. For if the Theory of Descent is really true, if the petrified remains of formerly living animals and plants really proceed from the extinct primæval ancestors and progenitors of the present organisms, then, without any-