

RELATION OF ENVIRONMENT TO EVOLUTION.

BY

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Evolution may be briefly defined as the derivation, or gradual development of the higher and more complex forms of life from simpler and more homogeneous ones.

There are two great theories of the origin of life, one, that each distinct and separate group of plants and animals came into being in obedience to the will of a great "First Cause," was independently created. the other that all forms of being which at present exist, are derived or descended from one or a few pre-existing or primordial forms in harmony with the principles of heredity and variability. This latter is in short the theory of organic evolution and it is into this theory that I propose to enquire for a few moments this evening, not for the purpose of proving its truth or otherwise, for that I confess is a task far beyond my ability, but to see if possible what part environment has played in the production of the many animals we see around us, so different and yet, as evolutionists would tell us, of a common ancestry.

Of the modern school of thought Charles Darwin is, without doubt, one of the greatest exponents. Let us look for a few moments at the grounds upon which he based his beliefs and into the theory he lays before us.

The marked likeness which exists between entire large groups of animals becomes even more marked if traced backward to their ancestors: the still more marked similarity which shows itself during the embryonic life of those different groups; the study of fossils and the discovery in these of a succession of related forms which would seem to serve as the links necessary to complete the chain of evidence; the study of domesticated animals which led him to believe that it was impossible for all the different races to have sprung from distinct wild stocks; these and many other facts are the foundation stone upon which Charles Darwin based his theory. According to him the two great factors in evolution are heredity and variability. It is well known and universally admitted that like tends to produce like. Further, if one group of beings differs from its fellows in some particular, it tends to transmit this peculiarity to its offspring. Still more would this be the case if the group in question mated with another group which possessed the same peculiarity. The particular feature would tend to be handed down in even more marked degree. This is taken advant-