

Species," illustrated by highly ingenious analogies, and not only suggesting clearer definitions, but also supplying some very comprehensive bases of thought. The problem, however, is not one of easy solution. After various oscillations in the phases of expressed opinion, Professor Baden Powell, has boldly taken up the enquiry in the whole comprehensive bearings of "The Philosophy of Creation," and in this work, among other profound questions, he gives special importance to that of the immutability or transmutation of species, as one of the most significant in relation to all the final deductions on which the disclosures of geology, and the scientific foundations of cosmo-theology, compel us to render our verdict anew.

Still more recently an eminent English Naturalist: Charles Darwin, has in his elaborate introductory treatise: "On the origin of species by means of natural selection," carried to undisguised conclusions, and with systematic details of evidence and results, some of those opinions which Professor Powell has only left to be surmised. According to Mr. Darwin, the essential differences of genera are only the product of the same powers of nature through a greatly protracted epoch, which within a less prolonged period had sufficed to produce species; and under our own limited observation are seen to give rise to permanent varieties in animals and plants. From observation of phenomena occurring within our own cognizance he has arrived at the conclusion that there is in reality no essential distinction between individual differences, varieties, and species. The well-marked variety is an incipient species; and by the operation of various simple physical causes, and comparatively slight organic changes, producing a tendency towards increase in one direction of variation, and arrestment, and ultimate extinction in another, that law of *natural selection*, as Darwin terms it, results, which leads to his "preservation of favoured races in the struggle for life." He thus establishes, as he conceives, a principle in nature, akin to that which man consciously sets in operation, when he effects changes on domesticated animals and on plants, by altered conditions of life, and then perpetuates such as he selects by preference for his own use. The element of time—so limited in man's operations,—is for practical purposes unlimited in relation to the operation of natural causes on the development of variations in organic being in diverse directions; and as the great physical changes to which geology bears witness, supply all the means requisite for producing individual variations on a scale immensely ex-