

sand? Nor will it do to attempt escaping from the difficulty, by alleging that there is the groundwork in the case of at least a common marine vegetation to start from; and that thus, if we have not properly the existence of the direct hereditary tie among the various individuals of each species, we may yet recognize at least a sort of collateral relationship among them, derived from the relationship of their marine ancestry. For relationship, in even the primary stage, the author of the "Vestiges" virtually repudiates, by adopting, as one of the foundations of his hypothesis, with, of course, all the legitimate consequences, the experiments of Mr. Weekes. The animalculæ-making process is instanced as representative of the first stage of being,—that in which dead inorganic matter assumes vitality; and it corresponds, in the zoological branch, to the production of a low marine vegetation in the phytological one. A certain semi-chemical, semi-electrical process, originates, time after time, certain numerous low forms of life, identical in species, but connected by no tie of relationship: such is the presumed result of the Weekes experiment. A certain further process of development matures low forms of life, thus originated, into higher species, also identical, and also wholly unconnected by the family tie: such are the consequences legitimately involved in that island-vegetation theory promulgated by the author of the "Vestiges." And be it remembered that Mr. Weekes' process, so far as it is simply electrical and chemical, is a process which is as capable of having been gone through in all times and all places, as that other process of strewing marl upon a moor, through which certain rustic experimenters have held that they produced white clover. It could have been gone through during the Carboniferous or the Silurian period; for all truly chemical and electrical experiments