

cies reputed identical in various successive deposits, — species which are always quoted in favor of a transition, however indirect, from one group of species to another, — and I have always found marked specific differences between them. In a few weeks I will send you a paper which I have just printed on this subject, where it seems to me this view is very satisfactorily proved. The idea of a procreation of new species by preceding ones is a gratuitous supposition opposed to all sound physiological notions. And yet it is true that, taken as a whole, there is a gradation in the organized beings of successive geological formations, and that the end and aim of this development is the appearance of man. But this serial connection of all successive creatures is not material; taken singly these groups of species show no relation through intermediate forms genetically derived one from the other. The connection between them becomes evident only when they are considered as a whole emanating from a creative power, the author of them all. To your special questions I may now very briefly reply.

Have fishes descended from a primitive type? So far am I from thinking this possible, that I do not believe there is a single