at least by land animals, and, therefore, one preceding revolution at least had put them under water; and if we may judge by the different orders of animals the remains of which are observed in them, they had perhaps been subjected to two or three irruptions of the sea.

Further Researches to be made in Geology.

These alternations now appear to me to form the problem in geology that it is of most importance to solve, or rather to define and circumscribe within due limits; for, in order to resolve it satisfactorily, it would be necessary to discover the cause of these events,—an undertaking which presents a difficulty of quite a different kind.

I repeat it, we see pretty clearly what is going on at the surface of the continents in their present state; we have formed a tolerable conception of the uniform progress and regular succession of the primitive formations, but the study of the secondary formations has been little more than merely commenced. That wonderful series of unknown zoophytes and marine mollusca, succeeded by reptiles and fresh-water fishes equally unknown; and these again replaced, in their turn, by other zoophytes and mollusca, more nearly related to those of the present day; those land animals, and those equally unknown fresh water mollusca and other animals which next occupied