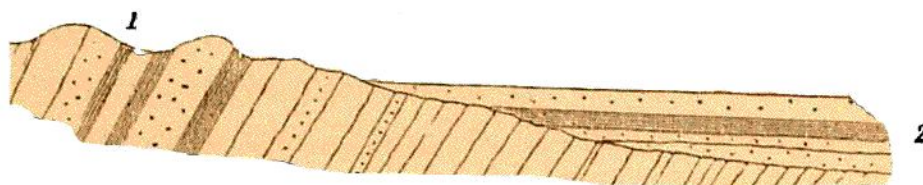


the sea, the strata No. 2 have been won from that old land and deposited on the upturned and denuded edges of the strata No. 1. This constitutes a case of *unconformable stratification*, and this alone marks the lapse

FIG. 8.



1. Old disturbed strata.
2. Later beds lying unconformably upon them.

of immense periods of *geological time*, first by the deposition, consolidation, and upheaval of the strata No. 1, and secondly in the deposition of the strata No. 2, which were made from the waste of No. 1.

There are many cases of this kind of unconformity extending through all geological time from the Laurentian epochs onwards. If, in addition to this, we consider the meaning of the progressive changes of genera and species of animals and plants, as we proceed from the older to the newer formations (as expressed in Chapter II.), it soon becomes obvious, that as yet we have no means of even attempting to form any clear idea of the time that has elapsed since life first appeared on the surface of the world, whether we adopt the original view of a distinct creative act for each individual species, or prefer the later one of evolution and progressive development.

To explain in some detail the anatomical structure or existing Physical Geography of our island, as dependent on the nature of its strata and the alterations and denudations they have undergone is the main object of this book. In making this attempt I shall