

CHAPTER II.

THE DIFFERENT AGES OF STRATIFIED FORMATIONS.

THEIR SUCCESSIVE DEPOSITIONS.

THE next point to be considered is—Are stratified rocks of different ages? They are, and the diagram, fig. 1, p. 13, will help to make this clear. There the bed No. 1 must be the oldest, because it was deposited in the sea (or other water) before bed No. 2 was laid above it as layers of mud, and so on to 3 and 4—taking the strata in order of succession. But that is not enough to know. We are anxious to understand what is the actual history of the different stages which such minor beds represent. Now, if we had never found any fossil remains imbedded in the rocks, we should lose half the interest of this investigation, and our discovery, that rocks are of different ages, would have only a minor value. Turn again to the diagram. We find at the base, beds of limestone, No. 1, perhaps composed of corals and shells. The organic remains in the upper part of these beds lie above those in the lower part, and therefore the latter were dead and buried, before the once living shells which lie in the upper part inhabited the area. Above the limestone lie beds of shale, No. 2, succeeded by No. 3, a conglomerate, and then comes the bed of sandstone, No. 4; therefore the shells (if any) in the bed of shale, No. 2, are of younger date