

than those in the bed of limestone, No. 1; the organic forms, plants or animals as the case may be, in the conglomerate, No. 3, were buried among the pebbles at a later date than the shells in the shale, and the remains of life in the sandstone, No. 4, were latest of all; and in each bed, each particular form found there, lived and died before the sediment began to be deposited that forms the bed above. All these beds, therefore, contain relics of ancient life of different dates, each bed being younger or older than the others, according as we read the record from above or from below. It is evident that the same kind of reasoning is equally applicable to the inclined strata of fig. 2, or to the contorted beds of fig. 3.

But if we leave a petty quarry or sea cliff, and examine strata on a larger scale, what do we find? On many a coast, where the cliffs consist of stratified rocks, a lesson may easily be learnt on the method of understanding the order, or comparative dates of deposition of geological formations. The Liassic, Oolitic, and Cretaceous cliffs of Yorkshire, from the Tees to Flamborough Head, form excellent examples; or the coast of Devonshire and Dorsetshire, from Torquay to Portland Bill. I take part of the latter as an example, from Lyme Regis to the eastern end of the Chesil Bank.

If we eliminate those accidents called faults, we there find a *succession of formations* arranged somewhat in the manner shown in diagram No. 5.

The horizontal line at the base represents the shore line. On the west (1) represents red marly strata, known as the New red or Keuper marls. These pass under thin beds of white fossiliferous limestone (2), known as the Rhætic beds. These in their turn pass