

emphasis upon certain processes of formation of sedimentary deposits which, though apparently departures from the normal method of formation, have apparently been the dominant processes in the growth of our greater sedimentary formations. The problem of the formation of sedimentary deposits (chiefly aqueous), is considered from a deductive standpoint, but it is based upon studies, more or less defective as to detail, of present geologic processes as they are in progress in our Great Lakes and elsewhere. First assuming certain elementary conditions of general occurrence in the formation of sedimentary deposits, the effects of variation in either of these factors, singly, or in both simultaneously, are considered. Later, secondary factors—since they are less important or are less widespread in their operation—are introduced, and a very few of the many complications which they would produce in the nature of the resulting deposits are considered. Naturally it will be found that the increase in the number of variant factors results in an increased complexity of product, and it is under the operation of these complex conditions that similar results may be produced by processes which are not exact equivalents.

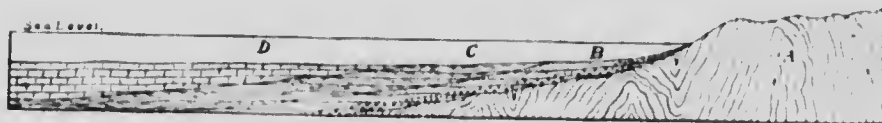


FIGURE 1.

At the present time it is generally conceded that all the great sedimentary formations were laid down around the margins of great ocean bodies and upon a gradually sinking land surface. In the generally accepted hypothesis of the formation of sedimentary deposits along the margin of a slowly sinking land area what may be termed the normal distribution of material, supplied by the waste of that land area and by which the sedimentary formations are built up, will be the formation of arenaceous deposits