

belts along the seashore, and along the lake shores (Ontario and Erie):—we should expect the supposed dune belt to carry fossils in its upper portion since it was manifestly transgressed by the ocean.

During the course of time the rate of depression may vary to the opposite sense, i. e., the land may begin to rise. Under these circumstances the landward end of the strata previously deposited will be subjected to erosion. During a subsequent depression the new deposits would rest unconformably upon them, while further seaward, where the earlier deposits had not emerged, there would be structural conformability. Such conditions seem to have existed during a portion of Palaeozoic time in eastern and central North America, where, in the east, unconformities are found between the various formations making up the Palaeozoic series, while further west the various members of the whole series are found with the younger conformably overlying the older, indicative of the fact that there was here continuous deposition.

Relatively slight variations of either factor, alone, or of both in opposite senses will produce interdigitation of the three principal members along the lines of the transition zones.

The individual consideration of the remaining combinations is unnecessary as the final results will be similar to those produced by the variations already considered. Inequalities in the supply of material in the different zones to synchronous portions of the same bed (or series of beds), will lead to many irregularities in the thickness of the bed in its different parts. The final product may thus be very complex, though the general principles will still be applicable.

In the previous discussion it has been tacitly assumed that the material supplied from the oldland area is of such a nature that all three zones, including their transition phases, will receive each its quota of deposit. Material suitable to fulfil this condition will normally be supplied