

areas, so perfect a horizontality, as in this district north of Toronto.

The hypothesis which attributes such appearances to the successive breaking down of the barriers of an ancient lake or ocean of fresh water, has now been very generally abandoned, from the impossibility of conceiving where, in North America, as in the west of Scotland, the lands capable of damming up the waters to such heights could have been situated, or how, if they ever existed, they could have disappeared, while the levels of the ancient beaches remained undisturbed. In order to dispense with the necessity of barriers, we may assume that the successive ridges and cliffs were formed on the margin of the sea, which changed its level relatively to the land again and again, while a large part of the continent emerged gradually from the waters. In that case, we must imagine the movement of upheaval to have been intermittent, so that there were pauses during which the coast-line remained stationary for centuries, and when the waves had time to cut cliffs, or throw up beaches, or throw down littoral deposits and sandbanks near the shore.

This theory has been objected to on the ground of the great improbability of so vast an amount of vertical movement having been developed so uniformly over areas several hundred miles in diameter. In some parts of Sweden and Finland, however, there has been a near approach to an uniform upward movement of two or three feet in a century throughout wide areas within the historical era, and we know far too little of the laws governing subterranean movements, to entitle us to raise objections, on the ground