

ates of the Huronian, of the early Lower Silurian, and of the Millstone grit period of the Carboniferous ; but I have not ventured to affirm that either of these periods was comparable in its cold with the later glacial age, still less with that imaginary age of continental glaciation, assumed by the more extreme theorists. We know that these ancient conglomerates were produced by floating ice, and this at periods when in areas not very remote, temperate floras and faunas could flourish. The glacial periods of our old continent occurred in times when the surface of the submerged land was opened up to the northern currents drifting over it mud and sand and stones, and rendering nugatory, in so far, at least, as the bottom of the sea was concerned, the effects of the superficial warm streams. Some of these beds are also peculiar to the eastern margin of the continent, and indicate ice drift along the Atlantic coast much as at present, while conditions of greater warmth existed in the interior. Even in the more recent glacial age, while the mountains were covered with snow, and the low lands submerged under a sea laden with ice, there were interior tracts in somewhat high latitudes of America in which hardy forest trees and herbaceous plants flourished abundantly, and these were by no means exceptional "interglacial" periods. Thus we can prove that from the remote Huronian period to the Tertiary, the American land occupied the same position as at present, and that its changes were merely changes of relative level, as compared with the sea ; but which so influenced the ocean currents as to cause great vicissitudes of climate.

Uniformitarian geologists have recently been taunted with a willingness to assume great and frequent elevations and submergences of continents, as if this were contrary to their principle. But rational uniformitarianism allows us to use any cause of whose operation in the past there is good geological evidence, and Lyell himself was perfectly aware of this.

While no geologists can fail to appreciate the evidence of