

equally available to account for the nature and geological distribution of the loess. But we must suppose that the amount of depression and re-elevation in the central region was considerably in excess of that experienced in the lower countries, or those nearer the sea, and that the rate of subsidence in the latter was never so considerable as to cause submergence, or the admission of the sea into the interior of the continent by the valleys of the principal rivers.

We have already assumed that the Alps were loftier than now, when they were the source of those gigantic glaciers which reached the flanks of the Jura. At that time gravel was borne to the greatest distances from the central mountains through the main valleys, which had a somewhat steeper slope than now, and the quantity of river-ice must at that time have aided in the transportation of pebbles and boulders. To this state of things gradually succeeded another of an opposite character, when the fall of the rivers from the mountains to the sea became less and less, while the Alps were slowly sinking, and the first retreat of the great glaciers was taking place. Suppose the depression to have been at the rate of five feet in a century in the mountains, and only as many inches in the same time nearer the coast, still, in such areas as the eye could survey at once, comprising a small part only of Switzerland or of the basin of the Rhine, the movement might appear to be uniform, and the pre-existing valleys and heights might seem to remain relatively to each other as before.

Such inequality in the rate of rising or sinking, when we contemplate large continental spaces, is quite consistent with what we know of the course of nature in our own times, as well as at remote geological epochs. Thus, in Sweden, as before stated, the rise of land now in progress is nearly uniform, as we proceed from north to south, for moderate distances; but it greatly diminishes southwards if we compare areas