To begin with the northern hemisphere. Let us suppose those hills of the Italian peninsula and of Sicily, which are of comparatively modern origin, and contain many fossil shells identical with living species, to subside again into the sea, from which they have been raised, and that an extent of land of equal area and height (varying from one to three thousand feet) should rise up in the Arctic Ocean between Siberia and the north pole. In speaking of such changes, I shall not allude to the manner in which I conceive it possible that they may be brought about, nor of the time required for their accomplishment - reserving for a future occasion, not only the proofs that revolutions of equal magnitude have taken place, but that analogous operations are still in gradual progress. The alteration now supposed in the physical geography of the northern regions would cause additional snow and ice to accumulate where now there is usually an open sea; and the temperature of the greater part of Europe would be somewhat lowered, so as to resemble more nearly that of corresponding latitudes of North America: or, in other words, it might be necessary to travel about 10° farther south in order to meet with the same climate which we now enjoy. No compensation would be derived from the disappearance of land in the Mediterranean countries; but the contrary, since the mean heat of the soil in those latitudes is probably far above that which would belong to the sea, by which we imagine it to be replaced.

But let the configuration of the surface be still farther varied, and let some large district within or near the tropics, such as Brazil, with its plains and hills of moderate height, be converted into sea, while lands of equal elevation and extent rise up in the arctic circle. From this change there would, in the first place, result a sensible diminution of temperature near the tropic, for the Brazilian soil would no longer be heated by the sun ; so that the atmosphere would be less warm, as also the neighbouring Atlantic. On the other hand, the whole of Europe, Northern Asia, and North America, would be chilled by the enormous quantity of ice and snow, thus generated on the new arctic continent. If, as we have already seen, there are now some points in the southern hemisphere where snow is perpetual down to the level of the sea, in latitudes as low as central England, such might assuredly be the case throughout a great part of Europe, under the change of circumstances above supposed; and if at present the extreme range of drifted icebergs is the Azores, they might easily reach the equator after the assumed alteration. But to pursue the subject still farther, let the Himalaya mountains, with the whole of Hindostan, sink down, and their place be occupied by the Indian Ocean, while an equal extent of territory and mountains, of the same vast height, rise up between North Greenland and the Orkney Islands. It seems difficult to exaggerate the amount to which the climate of the northern hemisphere would then be cooled.

But the refrigeration brought about at the same time in the southern hemisphere, would be nearly equal, and the difference of temperature between the arctic and equatorial latitudes would not be