Darwin and Dr. Hooker to migrations, which took place along mountain chains running from N. to S. during some of the colder phases of the glacial epoch.* Such an hypothesis enables us to dispense with the doctrine that the same species ever originated independently in two distinct and distant areas; and it becomes more feasible if we admit the doctrine of the co-existence of meridional belts of warmer and colder climate, instead of the simultaneous prevalence of extreme cold both in the eastern and western hemisphere. It also seems necessary, as colder currents of water always flow to lower latitudes, while warmer ones are running towards polar regions, that some such compensation should take place, and that an increase of cold in one region must to a certain extent be balanced by a mitigation of temperature elsewhere.

Sir John F. Herschel, in his recent work on 'Physical Geography,' when speaking of the open sea which is caused in part of the polar regions by the escape of ice through Behring's Straits, and the flow of warmer water northwards through the same channel, observes that these straits, by which the continents of Asia and North America are now parted, 'are only thirty miles broad where narrowest, and only twenty-five fathoms in their greatest depth.' But 'this narrow channel,' he adds, 'is yet important in the economy of nature, inasmuch as it allows a portion of the circulating water from a warmer region to find its way into the polar basin, aiding thereby not only to mitigate the extreme rigour of the polar cold, but to prevent in all probability a continual accretion of ice, which else might rise to a mountainous height.' †

Behring's Straits, here alluded to, happen to agree singularly in width and depth with the Straits of Dover, the difference in depth not being more than three or four feet; so that at

* Darwin, Origin of Species, ch. xi. p. 365; Hooker, Flora of Australia, Introduction, p. xviii. 1859.

† Herschel's Physical Geography, p. 41, 1861.