evidence that the present glaciers were once on an immensely larger scale than at present. The proof not only lies in the polished and grooved rocks far removed from the actual glaciers of the present day, but also in numerous moraines on a scale so immense that the largest now forming in the Alps are of pigmy size when compared with them. Such a moraine is the great one of the Dora Baltea, sometimes called the Moraine of Ivrea, which, on the plains outside the mouth of the Val d'Aosta, encloses a circuit of about sixty miles, and rises above the plain more than 1,600 feet in height, being altogether formed of mere accumulations of moraine rubbish. Its width in places averages about seven miles, as mapped by Gastaldi. Many others might be cited. The same kind of phenomena occur in the Altai Mountains, the Himalayah, the Caucasus, the Rocky Mountains, the Andes, the Sierra Nevada, and the Pyrenees of Spain, the Atlas of Morocco, the mountains of Sweden and Norway, the Black Forest and the Vosges, and in many other northern mountain chains or clusters, great or small, that have been critically examined. In the southern hemisphere, where mountain ranges are comparatively scarce, the same ancient extension of glaciers is prominent in New Zealand. Therefore there can be no doubt that at late periods of the world's history a climate or climates prevailed over large tracts of the earth's surface generally, but not always, of extreme arctic severity, for there were intermittent episodes of comparative warmth, when what is misnamed perpetual snow disappeared, or almost disappeared from mountain regions of moderate height. The cold of these minor cycles in time (for as shown by Dr. Croll, glacial cycles alternate in the northern and southern hemispheres) was produced by causes about which there have