

the roughest sense. In North America the continental temperature in some parts of the temperate zone is actually higher during the summer than it is in the torrid zone. Contrasts as unexpected may be observed in passing from east to west, when striking variations of temperature will also be observed at points equally distant from the Equator. Christiania, Stockholm and St. Petersburg are at about the same latitude; but Bergen, which is further north, has a warmer climate; and Reykjavic in Iceland, which is still further north, has been inhabited for a thousand years. Coming to the western hemisphere, however, the scale turns the other way, and it will be found that the three European capitals mentioned are at a latitude which in America has not as yet been deemed suitable for general habitation: points represented by Greenland, Baffinland, the northern waters of Hudson Bay, Great Slave Lake, Alaska, and Behring Sea. Montreal, on the other hand, which has a severe, cold winter climate similar to that of Christiania and St. Petersburg, is at about the same latitude as Florence, Italy, fifteen degrees to the south. Yet Montreal is not so far north as Victoria, British Columbia, with its balmy, south of England winter.

When to these climatic discrepancies is added the fact that the annual temperature in any region forms only one of the many minutiae of the climate as a whole, and that there are other factors of equal importance which have no connection whatever with the latitude, it will be readily seen that the general rules received heretofore are chiefly of importance by reason of their numberless exceptions, and that to gain a correct notion of the climate of a continent each separate region must be individually and independently studied.

Medical climatology takes into consideration all the phenomena of cosmic force which are manifested in each locality, and views them in relation to their influence upon the life and health of the race. These have been found to be of the most complex and delicate character. Continental position in relation to mountain ranges, altitude, marine position in relation to ocean currents, the presence of large bodies of water in the interior, prevailing winds, atmospheric humidity and foreign matter floating in the air, duration of sunlight and presence of electricity, the quality of the soil in its infinite varieties and the nature of the exhalations from it, vegetation and radiation, the frequency and violence of seismic motion, and even stellar influences combine together to form the meteorological *tout ensemble* which in every region goes loosely by the name of climate.

The foregoing, however, are but the contrasts noticed at the same latitude and at the same time. It is not necessary to enter in this place into a discussion of the prodigious changes in climate which have taken place on the continent at periods long anterior