

with high pressure and fewer storms. The changes are most extreme in mid-continental regions, decreasing toward the sea-coast, and actually being reversed in some maritime districts, such as eastern New England. The extremes of low temperature follow, and are apparently due to periods of maximum solar activity, as shown by the number of sun-spots and the rapidity with which they are formed. The times of largest rainfall depend on those of lowest temperature, which they follow at an interval of a few years. The other extreme is characterized by diminished solar activity followed by higher temperature and, a little later, by scarcity of rainfall. The cycles have been traced back by Clough to about 300 A. D., but the only data of any great degree of accuracy are those of the last century or more. During that time, the extremes, whether of heat or cold, have not shown any tendency to increase in intensity.

The Brückner cycles, as they are called, appear to differ from those of the Glacial Period in degree and regularity only. The effects upon glaciers, rivers, and lakes are of precisely the same nature; and the distribution of the two appears to be identical so far as the continents are concerned. Both are world-wide phenomena. The changes of climate of which we have found evidence in Central Asia partake of the nature of both the Brückner and the Glacial cycles, and lie between them in intensity. It seems reasonable to suppose that the three types of climatic change are of the same nature, are of the same solar origin, and are of equally wide distribution. Apparently, the climate of the earth is subject to pulsations of very diverse degrees of intensity and of varying length. The Glacial Period as a whole represents