

that which I had derived from the four years 1887-1891. The variation now of the hourly reading on any individual day in that month on the mean hourly reading for that month was regarded as the correction to be applied for that hour and that day to the normal diurnal variation as obtained from the four years 1887-91. This correction might in a certain way be looked upon as that which it was necessary to apply to an *assumed* normal diurnal variation in order to obtain the actual diurnal variation for that particular period. This correction was generally between 1' and 2'. In a few cases when a heavy disturbance had been in progress it was necessary to resort to the actual traces in order to apply a disturbance correction. On September 18, for example, for Massey a correction of $-6'$ was needed, and on October 12 at Oakland corrections $-16'$, $-10'$, $-2'$, $0'$, or a mean correction of $-7'$ had to be applied. On December 4th at Salisbury a severe magnetic disturbance was encountered and the correction on this day will doubtless be about $-6'$ to $-7'$. All of these corrections had to be made in the course of a few hours at the Magnetic Observatory. When the Observatory furnishes the data called for, more accurate and more careful reductions can be undertaken. It is not believed, however, that any error due to defective reduction amounting to over a couple of minutes will be attached to the figures herewith presented.

And in this connection it should again be recalled that by reason of the general plan of the survey, whereby at some of the stations the observations were made in the morning and at others in the afternoon, some of the reduction errors, as far as the diurnal variation at least is concerned, will be plus and others be minus. So that while it cannot be said that an accuracy of one or two minutes in the declination has been reached at every one of the individual stations, nevertheless it is believed that the general result will be nearly, if not entirely, of the same high order as though the utmost refinement had been reached at each station. And when it is remembered that the great desideratum is to increase the number of the stations and that by practising the utmost refinement, the number of the stations must necessarily be cut down, if appropriation and time are limited, it is