TABLE I.

Mean hourly values of the magnetic declination at the Washington Magnetic Observatory during the year 1890.

4° West + tabular quantity.

Hour.	Jan.	Feb.	Mar.	Apr.	May	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Mean.
1 A. M.	4′.0	3′.9	3′.9	4′.3	4′.6	5′.0	5′.6	5′.7	6′.1	6′.6	8′.3	9′.7	5′.5
2	4.0	4.3	3.9	4.0	4.6	5.1	5.0	5.7	5.8	6.8	7.6	8.1	5.4
3	4.1	3.9	4.1	3.6	4.2	4.9	5.6	5.9	5.5	6.3	7.9	7.9	5.3
4	3.7	3.7	3.9	3.3	4.0	4.8	5.5	4.7	5.3	6.4	7.3	7.4	5.0
5	3.8	3.7	3.5	3.2	3.2	3.8	4.2	4.4	5.1	7.0	7.5	7.7	4.8
6	4.1	3.5	3.3	2.2	2.2	2.4	2.6	2.6	4.1	6.5	7.3	7.5	4.0
7	3.6	3.3	2.2	1.4	2.0	1.2	1.2	0.6	2.5	5.0	6.9	7.5	3.1
8	2.7	2.6	1.2	**1.0**	**1.6**	**1.0**	**1.1**	**0.2**	**2.1**	**3.4**	**6.2**	7.9	**2.6**
9	**1.4**	**2.2**	**1.0**	1.7	2.6	2.0	1.9	1.9	3.4	3.6	6.5	**6.0**	2.9
10	1.4	2.2	2.6	3.9	5.0	4.4	4.1	5.9	5.2	5.2	7.1	6.0	4.4
11	3.0	3.2	4.7	6.5	6.8	8.5	6.6	8.7	8.2	7.4	8.4	7.4	6.6
Noon,	5.2	4.9	6.8	8.9	7.4	9.5	9.2	11.0	10.4	9.6	9.9	9.0	8.5
1	6.8	6·2	7.9	**9.4**	**10.2**	10.6	**10.3**	**11.4**	**11.1**	**10.6**	**10.6**	10.0	**9.6**
2	**7.0**	**6.8**	**8.1**	9.4	10.0	**10.6**	10.2	10.9	10.9	10.6	10.3	**10.1**	9.6
3	6.3	6.7	7.6	8.5	8.9	9.8	9.7	9.5	9.8	9.7	9.5	9.8	8.8
4	5.4	5.8	6.5	7.0	7.2	8.4	8.5	7.8	8.6	8.5	8.9	9.2	7.6
5	4.6	5.1	5.6	5.8	5.8	7.1	7.2	6.8	7.4	7.6	8.8	8.3	6.7
6	4.0	5.0	5.0	5.0	5.2	6.3	6.1	5.9	6.9	7.2	8.2	7.7	6.0
7	3.8	3.6	4.6	4.8	5.4	6.0	5.8	6.0	6.6	6.6	7.3	7.4	5.7
8	3.5	3.7	4.4	4.4	5.4	5.8	5.5	5.9	5.6	6.2	6.7	7.1	5.4
9	3.3	3.5	3.9	4.4	4.9	5.8	5.1	5.8	5.8	5.2	6.3	6.8	5.1
10	2.8	3.2	3.4	4.2	4.9	5.8	5.3	5.7	5.8	6.0	5.8	7.1	5.0
11	3.0	3.3	3.6	4.0	4.9	5.2	5.3	5.8	5.8	6.2	6.3	7.3	5.0
Midn't,	3.5	3.4	3.8	4.0	4.7	5.3	5.3	6.0	5.9	6.0	6.7	7.4	5.2
Mean,	4.0	4.1	4.4	4.8	5.2	5.8	5.7	6.0	6.4	6.8	7.8	7.9	5.8
Range,	5.6	4.5	7.1	8.4	8.7	9.6	9.3	11.2	8.9	7.2	4.4	4.1	7.0

The diagram (Fig. 3) gives a graphical representation of the diurnal variation, on the average for the year, for the years 1888, 1889 and 1890. As will be seen, the chief characteristics of this remarkable variation are, first, that at about sunrise the north end of the needle swings to the eastward until about 8 or 9 A. M., when it has reached its most easterly elongation. If the declination is west of north, as it is at present, over the entire state, then the declination will have reached its *lowest* value for the day at this time. Secondly, the needle, after hovering about the easterly extreme for a while, turns about and begins to march westward. About 10 or 11 A. M. it crosses the mean or average position for the entire day (24 hours). It does not stop here, but still pursues its onward march and at this moment with the greatest velocity until about 1 to 2 P. M., when the most