

*Determination of the Difference of Longitude between CHICAGO and MILWAUKEE, by Electric Signals for comparisons of Time, July 3d, 1858.*

N. B.—Sidereal Chronometer No. 2,557 fast of Milwaukee Sidereal time, (at 8*h.* 00*m.* 47*s.* Sidereal time,) 1*h.* 01*m.* 41.01*s.* Rate per Sidereal day, +5.66*s.*, or per Sidereal hour +0.236*s.*

Mean Solar Chronometer No. 141 slow of Chicago mean Solar time, (at 1*h.* 15*m.* 51*s.* mean time) 4*m.* 51.06. Rate per mean Solar day, +0.90*s.*, or mean Solar hour +0.0375*s.*

**1st.—Chicago Signals recorded at both Stations.**

Time of Signals given at Chicago by mean Solar Chronometer No. 141.	Mean Solar Chronometer No. 141 slow of Chicago mean Solar time.	Correct Chicago mean Solar time of Chicago signals.	Times of Chicago signals as noted at Milwaukee by Sidereal Chronometer No. 2,557.	Chronometer No. 2,557, fast of Milwaukee Sidereal time.	Milwaukee correct Sidereal time of Chicago signals.	Chicago correct Sidereal time of Chicago signals.	Difference of Longitude by each signal. Milwaukee West of the meridian of Chicago Station No. 3.
<i>h. m. s.</i>	<i>m. s.</i>	<i>h. m. s.</i>	<i>h. m. s.</i>	<i>h. m. s.</i>	<i>h. m. s.</i>	<i>h. m. s.</i>	<i>h. m. s.</i>
1 11 00	4 51.06	1 15 51.06	9 02 28.5	1 01 41.01	8 00 47.49	8 01 53.76	0 01 06.27
1 14 30	4 51.06	1 19 21.06	9 05 59	1 01 41.02	8 04 17.97	8 05 24.33	0 01 06.35
1 17 10	4 51.06	1 22 01.06	9 08 39.5	1 01 41.03	8 06 58.47	8 08 04.77	0 01 06.30
1 20 00	4 51.06	1 24 51.06	9 11 30	1 01 41.05	8 09 48.95	8 10 55.23	0 01 06.28

1st Mean.—Electric Signals transmitted from Chicago to Milwaukee ..... 0 01 06.30