

IV.—Chicago, July 3d, 1858.—At Station, No. 2, in Latitude $41^{\circ} 53' 50.5''$ N.; Longitude $5h. 50m. 31.15s. W.$

NAMES OF STARS.	Observed true altitudes of Star affected by corrections for refraction and errors of Sextant.	True Sidereal time of observation deduced.	Time of observation noted by Sidereal Chronometer, No. 2,557.	Chronometer No. 2,557, fast of Sidereal time by each observation
Alpha LYRÆ, (Vega) East	° ' "	<i>h. m. s.</i>	<i>h. m. s.</i>	<i>h. m. s.</i>
	61 52 00.6	16 04 30.73	17 05 08	1 00 37.27
	62 09 14.4	16 06 03.79	17 06 41.4	1 00 37.61
	63 40 44	16 08 53.80	17 09 30	1 00 36.20
	63 44 17.8	16 14 36.26	17 15 13	1 00 36.74
	64 23 13.6	16 18 06.40	17 18 43	1 00 36.60
	64 50 29.1	16 20 33.20	17 21 10.5	1 00 37.3
Mean result of 6 observations on Alpha LYRÆ, East, (at 16h. 12m.)				<i>h. m. s.</i> +1 00 36
Alpha CYGNI, also East	° ' "	<i>h. m. s.</i>	<i>h. m. s.</i>	<i>h. m. s.</i>
	51 08 35.7	16 59 27.22	18 00 03.9	1 00 36.68
	51 22 48.4	17 00 50.30	18 01 28.3	1 00 38.00
	51 42 28.9	17 02 45.22	18 03 23.4	1 00 38.18
	52 22 32.5	17 06 38.82	18 07 16.5	1 00 37.68
	52 48 33.2	17 09 10.25	18 09 47.5	1 00 37.25
	53 06 16.2	17 10 53.27	18 11 30.3	1 00 37.03
	53 28 01.8	17 12 59 67	18 13 37	1 00 37.33
	53 53 14.7	17 15 25.97	18 16 02.9	1 00 36.93
	54 26 13.3	17 18 37.04	18 19 14.2	1 00 37.16
	55 11 19.4	17 22 57.86	18 23 35.5	1 00 37.62
	55 29 37.4	17 24 43 57	18 25 20.5	1 00 36.83
	55 49 07.6	17 26 36.10	18 27 14.1	1 00 38
Mean result of 12 observations on the Star Alpha CYGNI, also East, (at 17h. 13m.)				<i>h. m. s.</i> +1 00 37.40
Mean result of 6 observations on the Star Alpha LYRÆ, East, (at 16h. 12m.) as above				+1 00 36.95
Mean result from two East Stars, giving each star an equal weight, (at 16h. 42m.)				+1 00 37.17