

VIII.—Chicago, July 15th, 1858.—At Station No. 3, Latitude $41^{\circ} 53' 46.3''$ N.; Longitude $5h. 50m. 31.2s.$ W.

1st Set.—With horizon roof, No. 1.

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 CORONÆ BOREALIS, West.....	45	14	22.7	18 57 55.16	19 59 41.3	1 01 46.14
	44	36	34.3	19 01 18.40	20 03 05	1 01 46.6
	44	01	20.6	19 04 27.75	20 06 14.2	1 01 46.45
	43	37	04.7	19 06 38.14	20 08 25	1 01 46.86
	43	20	56.6	19 08 04.85	20 09 51.3	1 01 46.45
	42	41	35.2	19 11 36.35	20 13 22.7	1 01 46.35
	42	11	46.6	19 14 16.55	20 16 03.5	1 01 46.95

Mean result of 7 observations on Alpha CORONÆ BOREALIS, West (at 19h. 06m.)..... $h. m. s.$ +1 01 46.54

Alpha ANDROMEDÆ, East.....	$^{\circ} \quad ' \quad ''$			$h. m. s.$	$h. m. s.$	$h. m. s.$
	°	'	"			
Alpha ANDROMEDÆ, East.....	41	59	33.7	20 11 11.81	21 12 56.6	1 01 44.79
	42	36	25.1	20 14 30	21 16 14.8	1 01 44.8
	42	51	10.7	20 15 49.37	21 17 34.4	1 01 45.03
	43	19	11.6	20 18 20	21 20 04.9	1 01 44.9
	44	15	58.4	20 23 25.21	21 25 10.5	1 01 45.29

Mean result of 5 observations on the star Alpha ANDROMEDÆ, East, (at 20h. 18m.)..... $h. m. s.$ +1 01 44.96

Mean result of 7 observations on the star Alpha CORONÆ BOREALIS, West, (at 19h. 06m.) as above..... $h. m. s.$ +1 01 46.54

First result with horizon roof No. 1:—Fast of Sidereal time by a mean of these results, from E. and W. Stars (at 19h. 42m.)..... $h. m. s.$ +1 01 45.75