Rejecting seconds :—

$d = 50\ 36\ 0$ ∴ 10″ is to be added to D = T. Cent. Dist.
$s = 38\ 0\ 0$ } Alts. to be used in Computation.
$m = 30\ 4\ 0$ }

$$\text{Cos. } \theta = \sqrt{\text{sec. } m \text{ . sec. } s \text{ . cos. } x \text{ . cos. } (x - d) \text{ . cos. } m' \text{ . cos. } s'}$$

$$\text{Sin. } \frac{D}{2} = \sqrt{\text{sin. } \left(\frac{m' + s'}{2} + \theta\right) \text{ . sin. } \left(\frac{m' + s'}{2} - \theta\right)}$$

	°	′	″	
$d =$	50	36	0	
$s =$	38	0	0	sec. = ·103468
$m =$	30	4	0	sec. = ·062762
	118	40	0	
	59	20	0	cos. = 9·707606
	8	44	0	cos. = 9·994935
$s' =$	37	58	47	cos. = 9·896652
$m' =$	30	51	41	cos. = 9·933696
	34	25	14	19·699119
	44	59	24	cos. 9·849559
	79	24	38	sin. = 9·992540
	10	34	10	sin. = 9·263463
				19·256003
	25	7	38	sin. 9·628001
			2	
	50	15	16	
		+	10	
	50	15	26	
N. A. Dist. at 12h.	50	32	12	P. L. = ·2638
		16	46	P. L. = 1·0368
T. G. M. T.	12	30	47	·7670
T. M. T. at P.	5	26	13	
Longitude	7	4	34	W
	60			
	4)424	34	0	
Longitude	106	8	30	W

Elbow South Branch, Saskatchewan.—Lat. 51° 1′ 26″ N.

1857. September 22d at 4h. 15m. P.M. (M.T. at Place nearly) the following Distance was observed between Sun and Moon. Error of Chronometer on M. T. at Place, 7h. 16m. 50s. fast. Index Error + 4′ 17″. Approximate Error on G.M.T. 10m. fast.

	D.	H.	M.	S.		°	′	″
Mean of Chronometer Times	- 22	11	35	51·7	Mean of Dists.	52	29	4
Error - - - - -	- —	7	16	50	Index Error	+	4	17
T M.T. at Place - - -	22	4	19	1·7		52	33	21

⊙'s N.P.D.	Cor.	Cor.	Eq. of T.	½ App. Hr L.	In Arc.	½ (l + p.)
° ′ ″	″	″	M. S.	H. M. S.	H. M. S.	° ′ ″
0 14 11·3 N.	58·53	·864	4 19 1·7	4 19 1·7	2 13 16·52	89 56 56
11 7·2	11·4	11·4			60	38 58 34
0 3 4·1	23412	3456	7 21 5		133 16 31	128 55 30
89 56 56	64383	9504	9 85			
	667·42	9·8496	7 31 35		33 19 7·8	64 27 45
	11·7·2					