

Date.	Mean Temp.	Hourly Rate.	Errors.
D. H. M.			
1 7 55	13.56	.4029	26 32.82
3 9 49	16.33	.3881	26 52.92
5 8 30	70.00	.1017	28 11.04
5 19 30	32.00	.3045	27 12.16
5 20 30	33.00	.2991	26 12.46
6 2 00	29.00	.3205	27 14.11
6 8 30	70.00	.1017	27 16.19
7 3 0	18.00	.3792	27 18.09
7 4 44			27 18.73

This corrected table gives the error at 3 d. 9 h. 49 m. within 0.1 sec. of the observed error. In the above exchanges of time between Ottawa and Toronto, there is, however, a discrepancy between the mean of the results on the two nights of 0.81 sec. Assuming that the change was due to a uniform error in the assumed rate of chronometer 1752, we find for the errors on Toronto Mean time at the times of contact

1752, slow of T. M. T. at 2nd contact	12	25.43
" 3rd "	12	26.87
" 4th "	12	26.95

In the exchange with Kingston taking the clock times as shown by the chronograph, and allowing, as in the case of Ottawa, for the difference between the errors at the time of exchange, we get as errors of the Kingston clock on Toronto Mean time, at the time of the several contacts, as follows:—

2nd Contact	12	21.58	Clock fast.
3rd "	12	22.03	"
4th "	12	22.08	"

The clock times of the contacts as measured from the Chronograph slips, with the corresponding Toronto mean times were as follows:—

	CLOCK.			T. M. T.		
	h.	m.	s.	h.	m.	s.
<i>Ingress.</i>						
Internal contact, second described phase	9	19	46.25	9	7	24.67
<i>Egress.</i>						
Internal contact, first	"	"	2 42 53.20	2	30	31.17
second	"	"	2 43 12.54	2	30	50.51
External contact	3	3	43.15	2	51	21.07

Cobourg had no transit instrument, and the time therefore depends entirely upon the exchange of signals by telegraph, interpolating we get for this error at the time contact was observed:—

Chronometer fast on Toronto mean time 2 min. 23.53 sec.

I append hereto the reports of the individual observers at the several stations where observations were obtained, except that from the station at Belleville, where, owing to atmospheric disturbance and other causes, the observation was not sufficiently accurate to be of value.

I have forwarded copies of this report to the Royal Society of Canada and to the Royal Astronomical Society of Great Britain. All of which is respectfully submitted.

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