MONTHLY METEOROLOGICAL REGISTER AT H.M. MAGNETICAL OBSERVATORY, TORONTO, C.W.—OCTOBER, 1851.

Latitude 43°. 39' 4 *N. Longitude*, 79°. 21'.5 *W. Elevation above Lake Ontario*, 108 *feet.—For the British American Medical and Physical Journal.*

Day.	Barometer at Temp. of 32° 6 a.m.	2 p.m.	10 pm.	Mean.	Temperature of the Air. 6 a.m.	2 p.m.	10 pm	Mean.	Tension of Vapour. 6 a.m.	2 p.m.	10 pm	Mean.	Humidity of Air. 6 a.m.	2 p.m.	10 pm	Mean.	Wind. 6 a.m.	2 p.m.	10 p. m.	Ins. of Snow or Rain	Weather.
1	29.813	29.805	29.763	29.796	36,6	55,8	46,6	47,77	0.193	0.318	0.274	0.266	.90	.72	.87	.81	NWbW	S by W	SWbS	—	Unclouded. Aur bor 10 to 12pm
2	.674	530	333	495	41,1	58,4	55,4	53,95	237	389	409	360	93	82	95	87	S W	S by W	S EbyS	0.050	Cl'y l'g &th'r 8pm rn'g 11.40p
3	267	307	453	350	53,8	56.9	47,4	52,80	385	424	270	351	95	94	84	83	W by N	W by N	NW bN	0.040	Ov'st slight r'n till 2 pm; au ft
4	559	642	751	662	45,0	52,2	48,4	48,50	232	329	304	286	79	86	90	85	NWbyN	NW bN	NW bN	—	Densely clouded all day
5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	NW	N by W	NWbW	—	Ds'ly cl'ded, very dull&gloomy
6	.888	.834	.862	.861	40,4	61,8	47,4	50,83	.231	.406	319	.323	.93	.76	.99	.87	W N W	S	S S E	—	Det'clds gen; fog10pm to midn
7	884	860	872	872	41,2	64,4	51,2	54,28	247	485	402	386	97	82	97	92	E S E	S by W	S by W	—	Fog 6 am, Cl'r, unc'ded, fine
8	915	892	882	893	46,0	65,6	53,4	56,00	289	508	363	391	94	83	91	88	S by W	S E	E by S	—	Unclouded but hazy, very fine
9	883	836	807	842	51,0	64,4	53,0	55,87	367	475	370	398	100	80	93	90	E by N	S E b S	S E	—	Fog 6&8am, uncl'd, hazy, fine
10	798	710	645	707	47,2	66,2	56,4	56,45	310	477	404	395	96	76	91	89	E	E S E	E by N	—	L't c'ds, halo r'd moon 10p.m.
11	663	636	596	632	46,6	65,4	54,4	57,80	314	470	376	418	100	77	90	89	E by N	E S E	E by N	—	Mostly overcast, sultry
12	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	E by N	E by S	E by N	0,260	Mostly o'rc't, heavy r'n mid n't
13	.259	.284	.404	.319	58,0	59,0	51,2	55,83	.471	.325	.321	.369	.100	.66	.86	.84	Calm	W S W	SW bW	0.245	Cea'd r'g 11am, aft'n part cl'r
14	464	471	552	501	47,6	51,6	39,6	48,03	311	321	240	300	95	76	97	93	SWbW	NW bW	Calm	0.070	Cl'dy, Occ'l sh'rs frm2pm, lt'g
15	671	794	935	813	38 8	50,6	33,6	40,93	202	248	159	206	86	68	82	80	W by S	N W	N W	—	L't pss'g cl'ds, mostly cl'r, fine
16	994	940	873	931	28.0	46,4	33,2	36,77	128	262	174	188	82	84	93	85	N N W	S by W	E by N	—	L't pss'g cl'ds, mostly cl'r, fine
17	851	755	675	753	37,8	51,3	41,0	43,30	201	304	233	216	89	81	92	88	N N E	E by N	E N E	—	L't cl'ds dispersed, mos'y cl'r
18	603	537	442	511	46,4	58,2	52,4	53,23	280	325	345	316	90	68	89	82	NE byE	E	E by N	0.120	L't c'ds dis, mst cl'r fnt aur l't
19	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	E	S S W	SW bW	0.300	Dens c'd, const r'n till 1.30pm
20	.338	.238	.293	.295	44,8	60,0	53,0	53,77	.268	.426	.339	.348	.91	.85	.86	.85	SWb W	S E	S S E	0.320	Cl'y, very dull, r'g fm 11.30pm
21	374	414	575	464	44,8	51,8	40,0	45,23	273	305	229	251	93	81	93	85	SWb W	S S W	W S W	Inapp	Ds'y c'd a.m. P.m.&n't c'r, au
22	586	601	702	635	32,4	49,7	38,4	40,43	167	177	219	189	92	50	95	78	W S W	W by S	W S W	—	L't cl'ds dis. f'nt aur l't 10 pm
23	768	787	751	757	34,0	44,6	42.4	40,97	165	167	259	201	85	57	97	80	W S W	W by S	S W	—	Gen cl'd, fnt aur l't 10 & md't
24	582	473	394	475	39,2	51,4	46,2	46,03	213	305	231	243	90	82	75	79	SWb W	SW byS	SW bW	—	Gen ov'st, l't cl'ds and haze
25	268	240	329	284	44,2	36,8	29,5	36,03	238	191	135	180	83	88	82	81	N by W	N	Calm	—	O'cst, snowing fm 3 to 5 p.m.
26	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Calm	N W	Calm	—	Dense detached clouds.
27	.468	.474	.491	.433	25,2	37,8	33,3	32,22	.124	.207	.166	.153	.89	.92	.87	.83	N W	N	Calm	—	Mos c'r, am; aft c'd, sn 10pm
28	482	508	514	503	32,2	42,8	45,6	40,25	168	231	256	218	93	85	85	87	Calm	S E byS	E	0.150	O'cst, th & h'ng 6 to 7pm, r'n
29	533	461	318	435	44,2	54,2	50,2	49.82	262	340	340	317	91	83	95	90	Calm	E	E	0.125	Den'y c'd r'g most of the day.
30	171	309	398	316	52,9	57,2	47,8	51,90	368	347	277	316	93	76	84	84	SW byS	SW bW	W	—	Gen cl'd very dull
31	507	546	563	545	43,8	48,6	37,2	42,60	204	301	204	226	73	89	93	83	Calm	SW byS	Calm	—	A.m. c'ded, p.m. generally cl'r
M	29.602	29.588	29.599	295974	42.34	54.30	45.60	47,83	0.254	0 335	0.282	0.291	.91	.78	.90	.85	3.59	6.78	3.29	1.680	

Highest obs. Barometer, 30 005, at 8 a.m. on 16th } Monthly
Lowest " 29,171, at 6 a.m. on 30th } R'ge 0.834
Highest obs. Temperature, 66,2, at 2 p.m. on 10th } Monthly
Lowest do. do 25.2, at 6 a.m. on 27th } Range, 41.0
Mean high. obs. Tem. 54.38 } Mean Daily
Mean Min. Ther. 40.52 } Range 13.86
Greatest Daily range 22.7 from 2 p.m. of 15th to 6a.m. of 16th
Warmest Day, 11th.—Mean Temperature, 57.80 } Differ. 25.58
Coldest Day, 27th.—Mean Temperature, 32.22
First snow of the season on the 25th — 0.1 inch in depth.
Snow on 27th — 0.2 do

Sum of the Atmospheric Current, in Miles resolved into the four Cardinal directions.

North	West	South	East
813.00	1516.20	1062,23	767.19

Mean velocity of the wind, 4.39 miles per hour.
Max. vel. 17.0 miles per hour, f'm 11 p.m. to mdg't on 3d
Most windy day, 3rd, mean velocity per hour, 10.18
Least do 31st, do do 0.85
Most windy hour, 1 p.m. do 7.04
Least do 9 p.m. do 2.74
Mean Diurnal Variation, 4.30 miles.

Year	Temperature. Mean	Max.	Min.	Range	Rain. Days	Ins	Snow. D'ys	Ins
1840	44.90	73.0	23'0	50.0	13	1.860	3	—
1841	41.80	59,7	20.6	39.1	6	1.360	2	—
1842	45.30	68.6	27.5	41.1	8	5.175	0	—
1843	41.92	68.0	24.2	43.8	12	3.790	4	2.5
1844	43.66	71.6	15.9	55.7	7	1.245	4	12.0
1845	46.49	64.0	19.7	44.3	11	1.760	1	Inapp
1846	44.81	70.1	20.7	49.4	14	4.180	2	Inapp
1847	43.71	64.6	20.2	44.4	13	4.390	2	inapp
1848	46.38	61.8	24.5	37.3	11	1.550	0	—
1849	44.94	58.9	25.2	33.7	13	5.965	1	Inapp
1850	45.60	66.7	22.4	44.3	10	2.085	0	—
1851	47.83	66.2	25.2	41.0	10	1.680	2	0.3