(For the Brit. Amer. Journ. of Med. and Phys. Science.)

MONTHLY METEOROLOGICAL REGISTER AT H.M. MAGNETICAL OBSERVATORY, TORONTO, C. W.,—SEPTEMBER, 1847.

Latitude 43°. 39′.4. *N.* *Longitude* 79°. 21′.5. *W.* *Elevation above Lake Ontario,* 108 *Feet.*

Day.	Barometer at Temp. of 32°. 7 A.M.	3 P.M.	10 P.M.	Mean of 24 h.	Temperature of the Air. 7 A.M.	3 P.M.	10 P.M.	Mean of 24h	Tension of Vapour. 7 A.M.	3 P.M.	10 P.M.	Mean of 24h	Humidity of the Air. 7 A.M.	3 P.M.	10 P.M.	Mean of 24h	Wind. 7 A.M.	3 P.M.	10 P.M.	Rain in. on surf.	Weather.
1,	29.669	29.615	29.619	29.632	52.4°	66.0°	54.0°	57.6°	.332	.394	.364	.380	.86	.63	.89	.82	Calm.	S. by E.	Calm.	—	Mostly clouded. Light detached clouds.
2,	29.675	29.641	29.618	29.628	54.8	71.6	61.4	62.7	.387	.535	.493	.467	.92	.72	.92	.84	Calm.	S. by E.	Calm.	—	Generally clear. Light detached clouds.
3,	29.540	29.478	29.655	29.580	52.1	73.2	57.9	62.7	.515	.607	.387	.471	.95	.77	.82	.83	S. by E.	S W by S.	N. N. W.	—	Clear till 5 am, remainder clouded. Slight showers 6 and 7 pm.
4,	29.687	29.604	29.506	29.628	55.7	58.0	60.3	55.5	.365	.408	.447	.376	.85	.87	.87	.87	Calm.	E. by N.	E. by N.	0.005	Cl'd. Th'r and ligh'g and r'n 9 to 11 pm
5,	29.356	29.308	—	—	63.3	69.9	—	—	.584	.673	—	—	.95	.95	—	—	E. N. E.	W. S. W.	——	0.510	Den'y cl'd r'ny during most of the day.
6,	29.713	29.741	29.768	29.753	51.4	67.4	56.5	58.2	.326	.471	.417	.408	.87	.72	.93	.85	Calm.	S.E. by E.	Calm.	1.235	Pas'g cl'ds till 4 pm. C'r from 4 to 11pm,
7,	29.787	29.659	29.576	29.640	59.3	63.0	63.8	62.6	.437	.449	.482	.456	.88	.80	.84	.82	Calm.	ENE 2.0	Calm.	—	Clear t 7 am rem'dr generally overcast.
8,	29.482	29.359	29.466	29.447	65.8	72.6	58.0	64.4	.537	.623	.436	.522	.87	.80	.92	.87	E. by S.	S.	N. W. 1.5	—	Cl'd. Th'r li'g 6 to 8 pm. R'n 4h 11m pm
9,	29.639	29.722	29.807	29.753	49.8	59.8	49.8	52.3	.317	.366	.320	.312	.90	.73	.91	.81	W N W	S.	S W by S	2.650*	Rainy till 5h 30m am. Cloudy till 6 pm. Clear from 8 pm.
10,	29.912	29.960	29.975	29.965	49.4	63.4	49.2	54.5	.318	.377	.314	.336	.91	.66	.91	.81	Calm.	S. S. E.	Calm.	—	Cl'r save a few passing cl'ds. Very fine.
11,	29.995	29.888	29.817	29.822	51.6	61.3	50.0	56.1	.341	.321	.311	.359	.90	.60	.88	.82	Calm.	E.	Calm.	—	Cl'r save a few passing cl'ds. Very fine.
12,	29.702	29.634	—	—	60.4	65.8	—	—	.457	.485	—	—	.88	.78	—	—	Calm.	Calm.	——	—	Generally overcast. Dull.
13,	29.583	29.617	29.689	29.650	53.5	51.8	44.8	49.0	.334	.260	.218	.264	.83	.68	.75	.77	N. W.	N. W.	N. by W.	0.090	Den'y cl'd all day. Sh'rs fr 3 to 4 am.
14,	29.772	29.785	29.839	29.815	45.4	52.9	43.2	45.4	.242	.236	.217	.225	.81	.60	.78	.75	N W by N	WNW 1.5	N. W.	0.005	Cl'd till 1 pm, remainder clear and fine. Slight rain 4 am.
15,	29.901	29.805	29.791	29.818	42.5	57.0	48.0	48.4	.221	.313	.257	.254	.82	.69	.78	.76	N. W.	S. by W.	N. N. W.	—	Cl'r unc'd. V'y fine. Hoar f'st 4 to 6 am.
16,	29.782	29.676	29.655	29.687	42.9	59.2	48.2	51.8	.248	.367	.298	.318	.91	.74	.89	.84	Calm.	S. by E.	Calm.	—	Clear till 5 pm. remainder passing cl'ds. Fine. Hoar frost 4 to 6 am.
17,	29.620	29.558	29.529	29.542	51.0	61.0	55.4	58.0	.319	.385	.359	.382	.86	.74	.84	.81	E. N. E.	E. N. E.	E. N. E.	—	Mostly Clouded. Raining from 8 pm.
18,	29.447	29.420	29.438	29.435	57.8	60.7	58.6	58.4	.431	.460	.429	.425	.92	.88	.89	.88	N.E. by E.	N.E by E.	E. N. E.	0.300	Cl'd all day. R'ning till 4 pm, sl't int'vls
19,	29.462	29.459	—	—	55.5	57.7	—	—	.408	.401	—	—	.94	.86	—	—	E. by N.	E. by N.	——	0.340	Densely clouded till 2 pm. Remainder partially clear. Slight rain.
20,	29.442	29.467	29.522	29.491	55.0	56.2	52.4	54.4	.382	.397	.341	.370	.90	.90	.88	.89	Calm.	N E by N	N. N. W.	0.010	Gen. cl'ded till 4 pm. Rem. part'ly cl'r.
21,	29.594	29.643	29.721	29.674	53.3	61.4	48.1	52.9	.366	.333	.277	.315	.91	.62	.84	.80	NW by N	NW by W	N. by W.	—	Cloudy till 3 pm. Rem. quite clear.
22,	29.801	29.759	29.745	29.764	48.0	59.0	50.2	52.0	.299	.332	.336	.326	.90	.67	.94	.85	N. by E.	S. by W.	Calm.	—	Gen. clear. Light passing clouds.
23,	29.720	29.636	29.647	29.665	52.4	66.8	56.6	59.7	.369	.461	.425	.431	.96	.72	.95	.86	Calm.	S. S. W.	Calm.	—	Generally clear. Passing clouds. Halo round moon at 9 and 10 pm.
24,	29.663	29.615	29.612	29.622	53.6	55.2	53.7	53.5	.360	.376	.375	.360	.89	.88	.93	.89	E.	E. S. E.	N E by N	—	Densely cl'd all day. R'ning from 4 pm.
25,	29.609	29.622	29.624	29.552	48.6	55.8	53.0	54.8	.291	.375	.366	.376	.86	.86	.93	.89	N. by E.	E.	E. by N.	0.090	Raining till 3 am, and occasionally during the day. Densely clouded.
26,	29.617	29.533	—	—	56.6	59.3	—	—	.406	.397	—	—	.91	.81	—	—	NE by E	E.	——	0.010	M'ly cl'd. Very h'vy thun. st'm fr. 7 pm
27,	29.303	29.226	29.271	29.264	58.9	68.4	58.4	59.2	.453	.534	.364	.432	.93	.79	.76	.86	NE by E	S. W.	NW by W	1.080	Th, light, & r'n till 3 am, & fr. 4 to 8 pm
28,	29.290	29.327	29.371	29.336	49.0	54.0	44.4	48.8	.301	.248	.254	.263	.88	.60	.88	.78	W. S. W.	NW by N	Calm.	0.190	Cl'r till 11 am. Th. light. & rn n. to 1 pm
29,	29.363	29.297	29.330	29.322	44.0	46.3	44.0	46.2	.238	.271	.241	.251	.83	.87	.84	.81	W. by S.	W.	Calm.	0.040	Cl'd. Th'-storm, light. & rn fr 1 to 4 pm
30,	29.406	29.397	29.386	29.369	41.4	51.6	45.8	48.5	.218	.255	.242	.256	.84	.67	.79	.76	WNW	W. N. W.	Calm.	0.110	Gen. clouded. Spitting rain 11 pm.
Mean	29.631	29.597	29.614	29.6098	51.9	60.5	52.5	54.91	.344	.391	.345	.359	.88	.74	.87	.83				6.665	

Highest Barometer, 30.007 at 9 a.m. on 11th.
Lowest do. 29.182 at 5 p.m. on 27th } Range 0.825
Highest Temperature, 74°.5 on 3d, at 2 pm
Lowest do. .. 35°.0 on 16th, 6 a.m. } Range 39.5
Mean Daily Range, .. 14°.16
Extreme Daily Range. 24°.8 from noon of 8th to 5 am. 9th.
Mean Max. Therm., 62.47—Mean Min. Therm., 48.30.

Proportion of Wind from each Quarter--

N.W.	153	Total.		
S.W.	83	Winds,	442	
S.E.	76	Calms,	182	
N.E.	130			
		Obser.,	624	

Mean force of the Wind, 0.33 lbs.
Maximum force of the Wind on 7th, at 2h 20m pm, 5.5.
Greatest Day's Wind, 13th.—Mean Pressure, 0.99 lbs.
Least do. 2d. " 0.06

Temperature for September. Year.	Mean.	Max.	Min.	Range.	Rain. No. Days.	Inches.	Winds.	Winds.	Calms	Mean force.
1840, ...	54.4°	73.6°	30.2°	43.4°	4	1,330				
1841, ...	61.5	80.2	37.7	42.5	9	3,340	195	117	0.26
1842, ...	55.6	82.6	27.9	54.7	12	6,160	402	222	0.45
1843, ...	58.93	89.0	32.2	56.8	10	9,760	420	204	0.57
1844, ...	58.47	81.8	28.2	53.6	4	0,230*	283	317	0.26
1845, ...	55.91	79.6	34.0	45.6	16	6,245	395	225	0.34
1846, ...	63.41	84.3	37.3	47.0	11	4,595	381	243	0.33
1847, ...	54.91	74.5	35.0	39.5	15	6,665	442	182	0.33

Under the head of Tension of Vapour, is given the elastic force of the Aqueous Vapour in the Atmosphere at each Observation, in decimals of an inch of Mercury, or the proportion of the Barometric pressure due to its presence.
Under the head of Humidity of the Air, is given the proportion the Aqueous Vapour bears to the quantity the air is capable of sustaining at the existing temperature, saturation being represented by 1.00.
The Instruments are Standard Instruments. The Rain Gauge is 27 feet above the soil.—The Means entered are the Means by 24 hourly Observations, from 6, a.m., to 6, a.m.
The quantity of Rain received for the last 24 hours, is noted at 9, a.m.
The Observations entered at 7 a.m., on Sundays, are actually taken at 9 a.m. The two Observations taken on Sundays are not included in any of the means.
* September, 1844, was remarkable for the absence of rain. With the exception of December, 1845, it was the driest month recorded in 8 years.