REMARKS ON TORONTO METEOROLOGICAL REGISTER FOR DECEMBER, 1864.

NOTE.—The monthly means do not include Sunday observations. The daily means, excepting those that relate to the wind, are derived from six observations daily, namely at 6A.M., 8 A.M., 2 P.M., 4 P.M., 10 P.M., and midnight. The means and resultants for the wind are from hourly observations.

Highest Barometer.....30.327 at 10 a.m. on 9th } Monthly range =
Lowest Barometer.....28.854 at 4 p.m. on 21st } 1.473 inches.

Self-registing Thermom.
- Maximum Temperature .....50°4 on p.m. of 3rd } Monthly range =
- Minimum Temperature .....—10°4 on a.m. of 23rd } 60°8
- Mean maximum Temperature ..... 32°23 } Mean daily range=
- Mean minimum Temperature ..... 19°71 } 12°52
- Greatest daily range .....31°4 from a.m. to p.m. of 23rd.
- Least daily range..... 5°0 from a.m. to p.m. of 26th.

Warmest day ..... 3rd... Mean temperature..... 41°48 } Difference = 40°08.
Coldest day .....22nd... Mean temperature ..... 1°40 }
Maximum Radiation. { Solar..... 94°5 on p.m. of 19th } Monthly range =
{ Terrestrial.....—17°5 on a.m. of 23rd } 112°0

Aurora observed on 0 nights.
Possible to see Aurora on 10 nights; impossible on 21 nights.
Snowing on 18 days; depth 27.1 inches; duration of fall, 95.2 hours.
Raining on 9 days, depth 2.945 inches; duration of fall 36.5 hours.
Mean of cloudiness = 0.80; above average +0.05.
Most cloudy hour observed, 2 p.m.; mean = 0.90; least cloudy hour observed, midnight; mean, = 0.70.

Sums of the components of the Atmospheric Current, expressed in miles.

North.	South.	East.	West.
1359.44	1862.89	1212.54	4855.22

Resultant direction S. 82° W.; Resultant velocity 4.94 miles per hour.
Mean velocity .....9.98 miles per hour.
Maximum velocity ..... 34.4 miles, from 11 a.m. to noon on 8th.
Most windy day ..... 8th.....Mean velocity, 22.67 miles per hour. } Difference=
Least windy day.....26th.....Mean velocity, 0.90 ditto } 21.77 miles.
Most windy hour ..... 2 to 3 p.m.....Mean velocity, 12.83 ditto. } Difference=
Least windy hour ..... 4 to 5 a.m.....Mean velocity, 7.23 ditto. } 5.60 miles.

1st. Solar halo at 9 p.m.—3rd. Dense Fog 6 and 8 a.m.—4th. Solar halo 2 and 3 p.m. —8th. Solar parhelion 3 p.m.; very stormy day.—10th. Lunar halo 10 p.m. and midnight.—12th. Lunar halo at 10 p.m.—15th. Lunar halo at 6 a.m.; solar halo at 11 a.m.—17th. Dense fog 7 a.m. to noon.—21st. Severe storm of wind and snow continuing all day.—27th. Fog 6 and 8 a.m.

The month of December, 1864, was comparatively cold, wet, windy and cloudy; the depth of snow was also much above the average.

COMPARATIVE TABLE FOR DECEMBER.

YEAR.	TEMPERATURE. Mean.	Excess above aver'ge (26°2)	Max. observed.	Min. observed.	Range.	RAIN. No. of days.	Inches	SNOW. No. of days.	Inches	WIND. Resultant. Direction.	V'y.	Mean Force or Velocity.
	°	°	°	°	°							
1840	24.3	— 1.9	41.0	— 4.4	45.4	3	Inap.	18	...	...	...	.....
1841	28.7	+ 2.5	45.5	+ 2.4	43.1	7	0.600	5	...	...	...	1.33 lbs.
1842	24.7	— 1.5	40.3	+ 3.8	36.5	3	0.880	17	...	...	...	0.61
1843	30.0	+ 3.8	41.1	+ 2.7	38.4	6	1.040	8	8.1	...	...	0.53
1844	28.2	+ 2.0	48.9	— 0.8	49.7	6	Imp.	6	4.2	...	...	0.40
1845	21.1	— 5.1	37.6	— 2.7	40.3	2	Inap	12	4.7	...	...	0.70
1846	27.5	+ 1.3	49 2	+ 3.7	45.5	5	1.215	9	6.0	...	...	0.57
1847	30.1	+ 3.9	50.0	+ 6.6	43.4	7	1.185	8	6.8	...	...	0.35
1848	29.1	+ 2.9	49.1	+ 0.6	48.5	7	2.750	7	16.5	S 83° W	1.12	5.44mls.
1849	26.5	+ 0.3	41.3	— 5.2	46.5	5	0.840	12	9.6	N 82° W	2.56	6.23
1850	21.7	— 4.5	48.3	— 9.7	58.0	2	0.190	18	29.5	N 44° W	2.93	7.40
1851	21.5	— 4.7	43.8	—10.5	54.3	6	1.075	15	10.7	N 82° W	4.00	7.37
1852	31.9	+ 5.7	51.0	+13.9	37.1	7	3.995	10	20.1	S 69° W	1.03	6.54
1853	25.3	— 0.9	42.2	— 5.2	47.4	4	0.625	13	22.3	N 35° W	2.39	4.98
1854	21.9	— 4.3	41.8	— 5.9	47.7	5	0.590	12	17.2	N 44° W	4.30	8.56
1855	26.8	+ 0.6	45.9	— 2.1	48.0	6	1.845	10	29.5	S 88° W	5.29	11.38
1856	22.9	— 3.3	41.2	— 9.1	50.3	6	1.790	20	16.3	S 87° W	4.62	11.56
1857	31.9	+ 5.7	45.6	+ 5.7	39 9	7	3.205	14	9.0	N 89° W	2.51	6.84
1858	27.4	+ 1.2	43.6	+ 5.0	38.6	11	1.657	18	10.4	N 78° W	1.66	9.36
1859	17 9	— 8.3	54.8	— 3.3	58.1	3	1.035	23	37.4	N 53° W	4.29	10.77
1860	24.0	— 2.2	38.5	— 7.0	45.5	3	1.362	21	13.5	N 62° W	4.66	10.14
1861	31.1	+ 4.9	55.1	+ 5.7	49.4	6	0.560	8	6.8	N 72° W	3.50	7.96
1862	28.8	+ 2.6	50.0	— 2.3	52.3	5	1.945	8	10.4	N 73° W	3.17	7.58
1863	27.0	+ 0.8	51.5	+ 1.0	50.5	10	2.960	17	7.1	N 41° W	1.61	9.40
1864	24.7	— 1.5	46.8	— 2.3	49.1	9	2.045	18	27.1	S 82° W	4.94	9.98
Results to 1864.	26.20	...	45.76	—0.78	46.54	5.6	1.641	13.1	14.69	N 71° W	2.97	8.32
Exc. for 1864.	— 1.50	...	+ 1.04	—1.52	+ 2.56	- 3.4	+ 0.404	+ 4.9	+ 12.41	.....	...	+ 1.66