REMARKS ON TORONTO METEOROLOGICAL REGISTER FOR DECEMBER, 1861.

Highest Barometer . . . . . 30.182 at 8 a. m. on 12th. } Monthly range=
Lowest Barometer . . . . . 29.171 at midn't on 31st. } 1.011 inches.

Self-registering Ther.:
Maximum temperature . . . . 55°2 on p.m. of 10th } Monthly range=
Minimum temperature . . . . 5°5 on a.m. of 25th } 49°7

Mean maximum temperature . . 37°03 } Mean daily range=12°80
Mean minimum temperature . . 24°23 }

Greatest daily range . . . . . 26°4 from a. m. to p.m. of 4th.
Least daily range . . . . . 2.2 from a.m. to p.m. of 23rd.

Warmest day . . 10th ...Mean Temperature . . .=48°45 } Difference=36°77.
Coldest day . . . 24th ...Mean Temperature . . .=11°68 }

Maximum } Solar . . . . . 70°2 on p. m of 8th } Monthly range=
Radiation } Terrestrial . . . . . —2°6 on a. m. of 25th } 72°.8

Aurora observed on 4 nights, viz.: 1st, 4th, 20th, and 21st; Possible to see Aurora on 16 nights; Impossible on 15 nights.

Snowing on 8 days: depth, 6.8 inches; duration of fall, 30 0 hours.

Raining on 6 days; depth, 0.560 inches; duration of fall, 18.6 hours.

Mean of cloudiness=0.62; below the average, 0.13 Most cloudy hour observed 8 a.m.; mean=0.68; least cloudy hour observed, midnight; mean=0.55.

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

North.	South.	East.	West.
2094.43	1300.98	929.21	3413.80

Resultant direction, N 72° W; Resultant Velocity, 3.50 miles per hour.

Mean velocity 7.96 miles per hour.

Maximum velocity 46.0 miles, from 9 to 10 a.m. on the 27th.

Most windy day 27th—Mean velocity 20.27 miles per hour. } Difference 19.50 miles.
Least windy day 8th—Mean velocity 0.77 miles per hour. }

Most windy hour, noon to 1 p.m.—Mean velocity, 9.90 miles per hour. } Difference
Least windy hour, 7 to 8 a.m.—Mean velocity, 5.93 miles per hour. } 3.97 miles.

Great Barometric Movement.

26th. 10 p.m. = 29.242 } Ascending range = 0.939 in 34 hours.
28th. 8 a.m. = 30.181 }
31st. Midn't = 29.171—Descending range = 1.010 in 88 hours.
Oscillations in 122 hours=1.949 inches.

5th. Dense Fog at 10 p.m.; dark and mild.—7th. Foggy at midnight; very mild day.—9th. Fog from 6 a.m. to 6.30 p.m.; very mild.—10th. Rapid descent of temperature from 10 p.m.; very stormy night; foggy from 7 to 8 a.m.—15th. Distinct lunar halo at 9 p.m.—17th. Lunar corona at 6 a.m.; lunar halo 8 p.m. to mid night.—18th. Lunar halo from 9 p.m. to midnight.—21st. Lunar corona at 6 a.m.—26th. Lunar halo at 6 a.m.—27th. Very stormy day; wind in violent squalls; bright meteor in N.W. about 10 p.m.—31st. Solar halo from 9 a.m. to 2 p.m.

The Resultant Direction and Velocity of the Wind for the month of December, from 1848 to 1861 inclusive, were respectively N. 69° W., and 2.97 miles.

COMPARATIVE TABLE FOR DECEMBER.

YEAR.	TEMPERATURE. Mean.	Difference from Average.	Maximum observed.	Minimum observed.	Range.	RAIN. No. of days.	RAIN. Inches.	SNOW. No. of days.	SNOW. Inches.	WIND. Resultant. Direction.	WIND. Resultant. Velocity.	WIND. Mean Velocity
	°		°	°	°							
1840	24.3	— 1.8	41.0	— 4.4	45.4	3	Inap.	18	...	...	...	...
1841	28.7	+ 2.6	45.5	+ 2.4	43.1	7	6.600	5	...	...	...	1.33lbs
1842	24.7	— 1.4	40.3	+ 3.8	36.5	3	0.880	17	...	...	...	0.61 "
1843	30.0	+ 3.9	41.1	+ 2.7	38.4	6	1.040	8	8.1	...	...	0.53 "
1844	28.2	+ 2.1	48.9	— 0.8	49.7	6	Imp.	6	4.2	...	...	0.40 "
1845	21.1	— 5.0	37.6	— 2.7	40.3	2	Inap.	12	4.7	...	...	0.70 "
1846	27.5	+ 1.4	49.2	+ 3.7	45.5	5	1.215	9	6.0	...	...	0.57 "
1847	30.1	+ 4.0	50.0	+ 6.6	43.4	7	1.185	8	6.8	...	...	0.35 "
1848	29.1	+ 3.0	49.1	+ 0.6	48.5	7	2.750	7	16.5	S 83 W	1.12	5.44ms.
1849	26.5	+ 0.4	41.3	— 5.2	46.5	5	0.840	12	9.6	N 82 W	2.56	6.23 "
1850	21.7	— 4.4	48.3	— 9.7	58 0	2	0.190	18	29.5	N 44 W	2.93	7.40 "
1851	21.5	— 4.6	43.8	—10.5	54.3	6	1.075	15	10.7	N 82 W	4.00	7.37 "
1852	31.9	+ 5.8	51.0	+13.9	37.1	7	3.995	10	20.1	S 69 W	1.03	6.54 "
1853	25.3	— 0.8	42.2	— 5.2	47.4	4	0.625	13	22.3	N 35 W	2.39	4.98 "
1854	21.9	— 4.2	41.8	— 5.9	47.7	5	0.590	12	17.2	N 44 W	4.30	8.56 "
1855	26.8	+ 0.7	45.9	— 2.1	48.0	6	1.845	10	29.5	S 88 W	5.29	11.38 "
1856	22.9	— 3.2	41.2	— 9.1	50.3	6	1.790	20	16 3	S 87 W	4.62	11.56 "
1857	31.9	+ 5.8	45.6	+ 5.7	39.9	7	3.205	14	9.0	N 89 W	2.51	6.84 "
1858	27.4	+ 1.3	43.6	+ 5.0	38.6	11	1.657	18	10.4	N 18 W	1.66	9.36 "
1859	17.9	— 8.2	54.8	— 3.3	58.1	3	1.035	23	37.4	N 53 W	4.29	10.77 "
1860	24.0	— 2.1	38.5	— 7.0	45.5	3	1.362	21	13.5	N 62 W	4.66	10.14 "
1861	31.1	+ 5.0	55.1	+ 5.7	49.4	6	0.560	8	6.8	N 72 W	3.50	7.96 "
Mean	26.11	...	45.26	—0 72	45.98	5.3	1.545	12.9	14.66	...	...	8 18
Diff from Av'ge.	+5.02	...	+ 0.84	+6 42	+3.42	+ 0.7	— 0.985	— 4.9	— 7.86	...	...	—0.22