## REMARKS ON THE METEOROLOGICAL RESULTS AT TORONTO FOR THE YEAR 1899

## TEMPERATURE.

The mean temperature of the year 1899 was 45°83, being 1°53 warmer than

the average of 59 years and 1° 32 colder than 1898. The mean temperature of the several months was in nine instances above and in three below the average for the respective months, the average excess to the average defect being in the ratio of 2°,72 to 2° 03. On each of 220 days the mean temperature was above the normal of that particular day and below on 145 mean temperature was above the normal of that particular day and below on 145 days. The mean temperature of each month, with the difference from the normal, was : January, 22°52+0°04; February, 19°28-3°29; March, 27°99-°085; April, 44°99+3°87; May, 55°12+2°80; June, 65°28+2°82; Julv, 68°77+1°01; August, 69°37+3°07; September, 56°76-1°06; October, 50°45+3°97; November, 40°58+4°40; December, 28°28+2°49. Dividing the year into the ordinary seasons we have for Winter, 23°26; Spring, 55°13; Summer, 64°97; Autumn, 39°97. The thermic anomalies differ from the normal temperature proper to the latitude : Winter, -12°60; Spring, -2°50; Summer,  $-1^{2*2}7$ ; Autumn, -4°36; In three months during the year the observed temperature exceeded the normal temperature 0°78 in the part of the latitude 0°78. value for the latitude, viz : June, 0°68 ; July, 0°07 ; August, 0°87. The mean value for the faiture,  $\sqrt{12}$ ; june, 0.05, juny, 0.07, lagues, 0.07. The mean daily range for the year was  $17^{\circ}51$ , the geatest monthly average occurring in August ( $24^{\circ}02$ ) and the least in December ( $12^{\circ}13$ ). The greatest daily range ( $35^{\circ}1$ ) occurred on the 23rd June, and the least ( $3^{\circ}9$ ) on the 24th November. The warmest month relatively was November, estimated by its excess ( $4^{\circ}40$ ) above the normal, August the warmest absolutely (69° 37). The coldest absolutely was February (10°28). It also was the coldest relatively, its mean being 3°29 below the normal.

The climatic difference was 50°00, the warmest day was the 20th of August, mean temperature, 77°43, and the coldest the 10th February,-5°42; but the warmest day relatively was the 4th January, it being 24°0 above its proper normal, and the coldest the 10th February, which was  $28^{\circ}5$  below the normal. The average temperature of the warmest and coldest days from former years was  $78^{\circ}07$  and  $2^{\circ}24$  below zero. The highest temperature of the year ( $92^{\circ}1$ ) occurred on the 10th August, and the lowest ( $12^{\circ}0$  below zero) on the 11th of February. The annual range from these extremes was 104°1, being 8°0 less than 1898 and 0°8 more than the average annual range. There were 28 instances in which the temperature at the hour of observation was 20° above the normal and 53 when a defect of equal amount occurred. The most striking deviations from the daily normal curve of temperature have been as follows :

## IN EXCESS.

January	3, Mean Deviation 14.4				October	12, Mean Deviation 13.4		
do	4	do		24 0	do	13	do	
do	13	do			do	14	do	13.1
do	14	do			do	16	do	13.7
do	15	do			do	24	do	12.2
do	16	do	1	16.2	do	25	do	17.5
do	21	do		12.0	do	26	do	
February	20	do		15.6	November	18	do	18.8
do	21	do			do	19	do	12.3
do	26	do		14.7	do	28	do	
March	11	do		16.0	do	29	do	
April	27	do		12.0	do	3)	do	16.9
do	28	do		13.1	December	1	do	
do	29	do		15.6	do	10	do	13.7
do	30	do		19.1	do	<b>11</b>	do	
May	1	do			do	12	do	13.6
do	2	do		17.7	do	18	do	
June	5	do		15.5	do	19	do	13.5
do	6	do		16.0	do	20	do	
do	7	do		13.4	do	21	do	
do	13	do			do	23	do	13 6
do	14	do		12.3				