

# Meteorological Abstract for the Year 1893.

Observations made at McGill College Observatory, Montreal, Canada. — Height above sea level 187 ft. Latitude N. 45° 30' 17". Longitude 4<sup>h</sup> 54<sup>m</sup> 18<sup>s</sup> 55 W.

C. H. McLEOD, Superintendent.

| MONTH.                                  | THERMOMETER. |                                  |      |        |                   | BAROMETER. |        |        |                   | † Mean pressure of vapour. | ‡ Mean relative humidity. | Mean dew point. | WIND.                |                                  | § Sky clouded per cent. | ¶ Per cent. possible bright sunshine. | Inches of rain. | Number of days on which rain fell. | Inches of snow. | Number of days on which snow fell. | Inches of rain and snow melted. | No. of days on which rain and snow fell. | No. of days on which rain or snow fell. | MONTH.                                  |               |
|-----------------------------------------|--------------|----------------------------------|------|--------|-------------------|------------|--------|--------|-------------------|----------------------------|---------------------------|-----------------|----------------------|----------------------------------|-------------------------|---------------------------------------|-----------------|------------------------------------|-----------------|------------------------------------|---------------------------------|------------------------------------------|-----------------------------------------|-----------------------------------------|---------------|
|                                         | Mean.        | † Deviation from 19 years means. | Max. | Min.   | Mean daily range. | Mean.      | Max.   | Min.   | Mean daily range. |                            |                           |                 | Resultant direction. | Mean velocity in miles per hour. |                         |                                       |                 |                                    |                 |                                    |                                 |                                          |                                         |                                         |               |
| January                                 | 4.68         | - 7.64                           | 41.7 | - 16.4 | 12.81             | 29.9449    | 30.677 | 28.943 | .220              | .0475                      | 81.3                      | 0.1             | S. 77° W.            | 14.8                             | 57.                     | 34.0                                  | 0.10            | 1                                  | 22.4            | 16                                 | 2.49                            | 1                                        | 16                                      | January                                 |               |
| February                                | 12.90        | - 2.58                           | 49.8 | - 12.7 | 15.50             | 30.0611    | 30.866 | 28.296 | .365              | .0690                      | 80.6                      | 0.9             | S. 71° W.            | 18.9                             | 61.                     | 40.0                                  | 0.42            | 4                                  | 21.1            | 12                                 | 2.81                            | 2                                        | 14                                      | February                                |               |
| March                                   | 25.25        | + 1.22                           | 42.9 | - 0.3  | 14.82             | 30.0136    | 30.633 | 29.441 | .263              | .1130                      | 77.5                      | 19.4            | S. 46° W.            | 19.6                             | 54.                     | 41.0                                  | 1.28            | 5                                  | 6.1             | 9                                  | 1.97                            | 0                                        | 14                                      | March                                   |               |
| April                                   | 34.80        | + 2.88                           | 60.8 | 11.8   | 15.98             | 30.0005    | 30.580 | 29.204 | .274              | .1494                      | 67.8                      | 26.5            | S. 43° W.            | 18.1                             | 62.                     | 42.2                                  | 1.32            | 12                                 | 8.4             | 4                                  | 2.18                            | 2                                        | 19                                      | April                                   |               |
| May                                     | 53.87        | + 0.47                           | 84.8 | 34.9   | 17.43             | 29.8364    | 30.281 | 29.245 | .212              | .2356                      | 69.7                      | 43.0            | S. 65° W.            | 16.6                             | 68.                     | 41.6                                  | 3.36            | 19                                 | ...             | ...                                | 3.36                            | ...                                      | 19                                      | May                                     |               |
| June                                    | 64.01        | + 3.26                           | 86.5 | 53.2   | 17.90             | 29.9597    | 30.187 | 29.612 | .131              | .5109                      | 74.5                      | 59.2            | S. 40° W.            | 11.2                             | 58.                     | 50.0                                  | 4.99            | 14                                 | ...             | ...                                | 4.99                            | ...                                      | 14                                      | June                                    |               |
| July                                    | 67.69        | + 1.14                           | 87.1 | 51.0   | 17.66             | 29.8624    | 30.136 | 29.530 | .154              | .4684                      | 72.6                      | 57.9            | S. 70° W.            | 12.7                             | 61.                     | 58.0                                  | 4.59            | 16                                 | ...             | ...                                | 4.59                            | ...                                      | 16                                      | July                                    |               |
| August                                  | 67.85        | + 0.89                           | 91.0 | 48.0   | 16.39             | 29.9175    | 30.109 | 29.124 | .166              | .5113                      | 75.5                      | 59.1            | S. 89° W.            | 11.4                             | 52.                     | 55.9                                  | 7.37            | 15                                 | ...             | ...                                | 7.37                            | ...                                      | 15                                      | August                                  |               |
| September                               | 54.83        | + 3.63                           | 76.5 | 38.5   | 15.74             | 29.9740    | 30.334 | 29.415 | .189              | .3345                      | 77.4                      | 47.5            | S. 60° W.            | 12.3                             | 54.                     | 49.0                                  | 2.40            | 12                                 | ...             | ...                                | 2.40                            | ...                                      | 12                                      | September                               |               |
| October                                 | 50.29        | + 4.89                           | 72.0 | 25.0   | 16.50             | 30.0576    | 30.602 | 29.016 | .228              | .2933                      | 76.8                      | 42.5            | S. 43° W.            | 14.9                             | 50.                     | 48.9                                  | 2.18            | 13                                 | 0.0             | 1                                  | 2.18                            | 1                                        | 12                                      | October                                 |               |
| November                                | 35.21        | + 2.78                           | 51.5 | 8.8    | 13.48             | 29.9626    | 30.615 | 28.407 | .271              | .1619                      | 76.3                      | 28.3            | S. 36° W.            | 16.9                             | 65.                     | 34.5                                  | 1.31            | 11                                 | 5.8             | 12                                 | 1.97                            | 5                                        | 18                                      | November                                |               |
| December                                | 11.81        | - 6.76                           | 41.0 | - 13.8 | 17.97             | 30.1009    | 30.882 | 29.345 | .339              | .0761                      | 86.2                      | 8.4             | S. 81° W.            | 16.3                             | 66.                     | 34.0                                  | 0.76            | 5                                  | 40.4            | 23                                 | 4.60                            | 4                                        | 24                                      | December                                |               |
| Sums for 1893                           |              |                                  |      |        |                   |            |        |        |                   |                            |                           |                 |                      |                                  |                         |                                       |                 |                                    |                 |                                    |                                 |                                          |                                         |                                         | Sums for 1893 |
| Means for 1893                          | 40.72        | - 1.01                           | ...  | ...    | 15.59             | 29.9744    | ...    | ...    | .234              | .2536                      | 76.4                      | 33.3            | S. 60° W.            | 15.31                            | ...                     | ...                                   | 30.14           | 127.                               | 104.2           | 77                                 | 40.91                           | 15                                       | 189                                     | Means for 1893                          |               |
| Means for 19 years ending Dec. 31, 1893 | 41.73        | ...                              | ...  | ...    | ...               | 29.9871    | ...    | ...    | ...               | .2500                      | 74.4                      | ...             | ...                  | * 15.21                          | 61.3                    | 345.7                                 | 28.18           | 133                                | 122.6           | 82                                 | 40.14                           | 16                                       | 200                                     | Means for 19 years ending Dec. 31, 1893 |               |

\* Barometer readings reduced to 2° Fah. and to sea level. † Inches of mercury. ‡ Saturation 100. § For twelve years only. ¶ For seven years only. †† "†" indicates that the temperature has been higher; "—" that it has been lower than the average for 19 years inclusive of 1893. The monthly means are derived from readings taken every 4th hour, beginning with 3 h. 0 m. Eastern Standard time. The anemometer and wind vane are on the summit of Mount Royal 57 feet above the ground and 810 feet above the sea level.

The greatest heat was 90.0 on August 11; the greatest cold was 16.4 below zero on January 11, and 16.3 below zero on January 12. The extreme range of temperature was therefore 106.4. Greatest range of the thermometer in one day was 40.3 on February 6; least range was 4.1 on April 15. The warmest day was August 11, when the mean temperature was 78.7. The coldest day was January 11, when the mean temperature was 12.63 below zero. The highest barometer reading was 30.882 on December 14. Lowest barometer reading was 28.943 on January 2, giving a range of 1.939 for the year. The lowest relative humidity was 23 on May 12. The greatest mileage of wind recorded in one hour was 62 on January 29, and the greatest velocity in gusts was at the rate of 72 m. p. h. on January 29. The total mileage of wind was 134,972. The resultant direction of the wind for the year was S. 60° W., and the resultant mileage was 49,488. Auroras were observed on 28 nights. Fogs on 5 days. Thunder storms on 23 days. Lightning without thunder, on 5 days. Lunar halos on 16 nights. Lunar coronas on 5 nights. Solar halos on 10 days. The first snowfall of the autumn was on October 29. The first sleighing of the winter was on December 3. On November 27, at 11 h. 47 m., there was a very sharp earthquake shock, its apparent direction was N. E. to S. W.

NOTE.—The yearly means of the above, are the averages of the monthly means, except for the velocity of the wind.