## MONTHLY METEOROLOGICAL REGISTER AT H.M. MAGNETICAL OBSERVATORY, TORONTO, C.W.—JULY, 1851.

*Latitude* 43°. 39'.4 *N. Longitude*, 79°. 21'.5 *W. Elevation above Lake Ontario*, 108 *feet.—For the British American Medical and Physical Journal.*

| Day. | Barometer at Temp. of 32° | | | | Temperature of the Air. | | | | Tension of Vapour. | | | | Humidity of Air. | | | | Wind. | | | Ins. of Rain. | Weather. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 6 a.m. | 2 p.m. | 10 p.m. | Mean. | 6 a.m. | 2 p.m. | 10 p.m | Mean. | 6 a.m. | 2 p.m. | 10 pm | Mean. | 6 a.m | 2 p.m. | 10 pm | Mean. | 6 a.m. | 2 p.m. | 10 p. m. | | |
| 1 | 29.603 | 29.625 | 29.713 | 29.629 | 58.7 | 68.2 | 58.0 | 61.37 | 0.404 | 0.521 | 0.429 | 0.428 | .83 | .89 | .89 | .82 | N N W | N N W | N | — | Light clouds am ; aft uncloud |
| 2 | .779 | .775 | 729 | 759 | 54.7 | 65.4 | 53.4 | 58.25 | 379 | 481 | 393 | 407 | 90 | 79 | 98 | 86 | Calm | Calm | Calm | — | Light clouds disp ; night clear |
| 3 | 641 | 595 | 591 | 604 | 54.6 | 68.5 | 58 8 | 57.75 | 368 | 466 | 476 | 432 | 89 | 97 | 97 | 92 | NE byN | N N E | N | 0.295 | Cl'dy ; sl't r'n 10 am to 11 pm |
| 4 | 629 | 615 | 619 | 626 | 58 8 | 71.4 | 55.2 | 63.07 | 417 | 432 | 339 | 382 | 86 | 68 | 80 | 69 | N W b N | N W bN | Calm | — | Unclouded ; fine |
| 5 | 628 | 557 | 516 | 575 | 52.6 | 74.4 | 63.0 | 65.38 | 334 | 576 | 507 | 484 | 86 | 69 | 90 | 79 | Calm | S by W | S W | 0.010 | Gen clear ; light cl'ds dispers |
| 6 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | Calm | S by E | N N E | 0.140 | Clouded ; com to rain 4,20 pm |
| 7 | .523 | .608 | .618 | .586 | 62.2 | 67.6 | 56.2 | 62 33 | .477 | .475 | .389 | .449 | .88 | .72 | .88 | .82 | N W bN | S S E | E by N | Inapp | Gen clear ; light cl'ds dispers |
| 8 | 582 | 548 | 458 | 522 | 59.0 | 64.2 | 60.2 | 61.17 | 454 | 491 | 486 | 465 | 92 | 85 | 95 | 89 | E by N | E by N | E N E | — | Overcast, dense cl'ds & haze |
| 9 | 427 | 375 | 339 | 378 | 60.0 | 73.1 | 65.6 | 67.07 | 498 | 598 | 613 | 599 | 99 | 75 | 1.00 | 93 | Calm | S by W | Calm | 1.155 | O'erc't ; thunderstorm ; rain |
| 10 | 365 | 433 | 575 | 467 | 62.4 | 74.4 | 58.2 | 64.77 | 498 | 525 | 418 | 477 | 90 | 61 | 88 | 81 | N W bN | W S W | N N W | — | Gen overc am ; m'dly clear pm |
| 11 | 665 | 714 | 728 | 710 | 55.6 | 69.7 | 61.4 | 63.05 | 391 | 524 | 416 | 431 | 90 | 75 | 78 | 77 | N | S S W | N | — | M'dly cl'r ; light cl'ds r'nd hor |
| 12 | 802 | 793 | 771 | 789 | 60.6 | 71.2 | 61.5 | 64.85 | 400 | 532 | 495 | 461 | 78 | 72 | 92 | 77 | N b W | S W b S | S S W | — | Light cl'ds gen disp ; clear sp |
| 13 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | E by S | S by E | S E b S | — | Mostly clear ; fine |
| 14 | .741 | .657 | .574 | .617 | 63.2 | 76.4 | 66.8 | 69.35 | .475 | .592 | .602 | .555 | .81 | .68 | .95 | .81 | E by N | S | S W b W | 0.435 | L't cl'ds & haze ; r'n dur night |
| 15 | 451 | 362 | 365 | 385 | 61.9 | 69.9 | 66.8 | 66.55 | 514 | 646 | 608 | 589 | 95 | 91 | 96 | 94 | S W | S W | Calm | 0.160 | Cens r'ng 7 am ; th & l'ghtn pm |
| 16 | 351 | 292 | 358 | 334 | 66.8 | 76.8 | 73.6 | 73.32 | 603 | 775 | 601 | 676 | 95 | 87 | 76 | 85 | SE by S | S by E | W by S | Inapp | Thun, light & r'n 11 am to 3 pm |
| 17 | 396 | 403 | 436 | 415 | 69.8 | 82.7 | 66.8 | 73.43 | 610 | 499 | 590 | 557 | 87 | 46 | 92 | 73 | W by N | W S W | Calm | — | Zen clear ; light cl'ds dispers |
| 18 | 408 | 323 | 319 | 365 | 61.8 | 72.2 | 60.5 | 65.75 | 484 | 588 | 506 | 535 | 91 | 77 | 98 | 87 | Calm | S | E S E | 0.230 | L't cl'ds disp ; th-st fr 3,50 pm |
| 19 | 331 | 314 | 323 | 325 | 60.2 | 68.4 | 62.0 | 61.13 | 497 | 607 | 421 | 487 | 97 | 90 | 77 | 83 | Calm | S E | W N W | 0.005 | O'rc't ; dull ; thun in W & NW |
| 20 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | W | N W b N | N W b W | — | Light cl'ds gen disp ; clear pm |
| 21 | .719 | .710 | .707 | .715 | 57.6 | 74.2 | 59 2 | 65.13 | .437 | .514 | .406 | .454 | .94 | .63 | .82 | .76 | Calm | S S W | S W | — | Almost unclouded ; very fine |
| 22 | 725 | 683 | 669 | 691 | 58.6 | 76.6 | 65.8 | 67.40 | 451 | 635 | 578 | 551 | 93 | 72 | 94 | 84 | Calm | S S W | Calm | — | Gen cl'd ; sh't light in E 10 pm |
| 23 | 729 | 711 | 658 | 691 | 61.6 | 77.0 | 68.4 | 70.53 | 541 | 693 | 560 | 598 | 92 | 76 | 85 | 84 | Calm | E S E | NE byE | 0.190 | Cl'r am : sl't r'n 11 pm to midn |
| 24 | 532 | 492 | 482 | 502 | 66.8 | 68.6 | 64.0 | 66 53 | 539 | 661 | 570 | 605 | 92 | 97 | 99 | 96 | E by N | S E b S | Calm | 0.810 | Cl'd ; rain ; th & light occas |
| 25 | 489 | 398 | 378 | 412 | 63.4 | 76.2 | 70.6 | 70.47 | 560 | 721 | 697 | 651 | 99 | 84 | 96 | 91 | S W | S W b S | S W b W | Inapp | Slight rain 6,40 to 7,25 am |
| 26 | 461 | 358 | 331 | 378 | 65.0 | 79.8 | 70.4 | 72.48 | 557 | 706 | 661 | 651 | 93 | 72 | 92 | 85 | W by N | S W b S | Calm | — | M'dly cl'r am ; sh't l'ng 10 pm |
| 27 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | W N W | N W b W | N W b W | — | Dense cl'ds disp ; clear interv |
| 28 | .381 | .412 | .499 | .436 | 62.2 | 73.8 | 64.2 | 67.43 | .483 | .668 | .461 | .516 | .86 | .83 | .79 | .77 | N W | N W b N | N W b N | — | Clouded am ; clear from 4 pm |
| 29 | 511 | 609 | 641 | 602 | 56.7 | 69.2 | 58.5 | 62.47 | 401 | 620 | 426 | 453 | 89 | 76 | 88 | 82 | N W bN | S E bE | E by S | — | Clear & fine day ; night cl'd |
| 30 | 643 | 679 | 701 | 678 | 60.0 | 67.2 | 59.2 | 62.43 | 480 | 517 | 481 | 492 | 95 | 80 | 98 | 86 | E N E | E by S | N N E | — | Day gen cl'd ; even & night fine |
| 31 | 725 | 757 | 771 | 758 | 58.8 | 68.2 | 61.6 | 63.40 | 391 | 591 | 530 | 507 | 81 | 89 | 99 | 89 | N by E | E | E N E | 0.195 | Cloudy ; dist th fr 2 pm ; rain |
| M | 29.663 | 29.548 | 29.553 | 2955.51 | 60.65 | 71.68 | 62 59 | 65,55 | 0.470 | 0 576 | 0 506 | 0.515 | .90 | .77 | .90 | .84 | 3,05 | 6.59 | 2.40 | 3.625 | |

Highest obs. Barometer, 29 811, at 8 a.m. on 12th } Monthly
Lowest " 29.284, at 4 p.m. on 16th } Range 52.7
Highest obs. Temperature, 82.7, at 2 p.m. on 17th } Monthly
Lowest do. do 46.5, at 6 a.m. on 2nd } Range, 36.2
Mean Max. Therm. 72 41 } Mean Daily
Mean Min. do. 57.71 } Range 14.70
Greatest Daily range 24.02 from 4 p.m. of 4th to a.m. of 5th
Warmest Day, 17th.—Mean Temperature, 73.43 } Differ. 15.68
Coldest Day, 3rd.—Mean Temperature, 57.75 }
Warmest hour Mean temperature }
Coldest hour do do }
Mean Diurnal variation

Sum of the Atmospheric Current, in Miles resolved into the four Cardinal directions.

| North | West | South | East |
|---|---|---|---|
| 1172.93 | 1238.84 | 849.09 | 672.91 |

Mean velocity of the wind, 4.13 miles per hour.
Max. velocity, 15,3 miles per hour, from 10 to 11 a.m. on 4th
Most windy day, 28th, mean velocity per hour, 7.42
Least do 2nd. do do 1.07
Most windy hour, 2 p.m. do 6.59
Least do 9 p.m. do 2 21
Mean Diurnal Variation, 4.38 miles.

| Year | Temperature. Mean | Max. | Min. | Range | Rain. Days | Ins | Snow, |
|---|---|---|---|---|---|---|---|
| 1840 | 66.30 | 82.3 | 47.0 | 35.3 | 6 | 5,270 | |
| 1841 | 65.50 | 89.0 | 39.9 | 49.1 | 10 | 8.150 | |
| 1842 | 61.70 | 91.0 | 42 5 | 48,5 | 4 | 3,050 | |
| 1843 | 61,68 | 86.8 | 38.7 | 48.1 | 8 | 4,605 | |
| 1844 | 66,08 | 86 6 | 40.1 | 46,5 | 12 | 2,815 | |
| 1845 | 66.74 | 95.0 | 45.7 | 49,3 | 7 | 2,195 | |
| 1846 | 68.22 | 94.6 | 44.5 | 50.1 | 9 | 2.895 | |
| 1847 | 67.62 | 87 0 | 43.2 | 43.8 | 8 | 3,355 | |
| 1848 | 65.37 | 82.2 | 44.1 | 38.1 | 10 | 1.890 | |
| 1849 | 67.82 | 88.6 | 47.3 | 41.3 | 4 | 3.415 | |
| 1850 | 69.04 | 86.2 | 51.6 | 34 6 | 12 | 5,270 | |
| 1851 | 65.55 | 82.7 | 46.5 | 36.2 | 12 | 3,625 | |