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By Dr. H. M. Ami, of the Geological Survey Department, Ottawa.

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(The late George Mercer Dawson) with portrait. Obituary notice by H. M. Ami, Sc.D., in *The Ottawa Naturalist*, Vol. xv., No. 2, pp. 43-52, May, 1901.

Some Notes on Mount Royal.

By J. S. Buchan, K.C., B.C.L.

Mount Royal may be described as bounded by Sherbrooke Street on the East, a line about a quarter of a mile beyond the Electric Railway on the West, at Outremont; Park Avenue on the North, and the Electric Railway on the South. The area thus enclosed, from the scale on the map, is about 16,000 feet, or over three miles, from North to South, and 11,500 feet, or over two miles, from East to West.

In shape it is a somewhat irregular oval, and has a superficial area of about five square miles. In this space there are three principal peaks, one at the Observatory, 739 feet above low water in the Harbor, another opposite to this, and divided from it by Mount Royal Cemetery, 730 feet, and the Westmount, or Little Mountain, about 600 feet, from a Barometer reading, which has, however, not been verified, as stated below. These points are separated from each other, the first two by the depression in which the Mount Royal Cemetery is situated, and the latter from the others by the Cote des Neiges valley.

It will be understood that these and all measurements used in this paper do not pretend to give those of an accurate survey, and in the sketches showing the line of division between the limestone and trap of the mountain, the irregularities of the lines have been neglected, as they could not be correctly shown on a small scale plan, and, further, were not necessary for the purposes of the present paper, the object of which is to show in a general and comprehensive manner the area, position and boundaries of the respective trap and limestone formations of which the mountain is composed.

To assist the description, I have prepared some rough sketches, on which the heavy black line on Figures 1, 2

and 3 marks the division between the trap and the unaltered limestone, the part covered by the latter being shown by the space below the line, the Theralite by the perpendicular lines, the altered limestone by the dotted shading, and the crosses indicating Nepheline Syenite.

On the map, Fig. 4, the shaded portion enclosed by the heavy black line shows the position and general appearance of the part occupied by the trap and altered limestone, as referred to above.

This part of the mountain as shown on the map is also an irregular oval, with a length of about 9,000 feet from East to West, by 5,700 in width, and having an approximate area of from 1,000 to 1,200 acres. This is somewhat larger than that estimated by Logan, Geology of Canada, p. 172, which he placed at about 700 acres.

On the map, Fig. 4, it will be noted that the margin of the dark portion is dotted, while the central part, with a slight exception, is shaded in black. The former is principally altered crystalline limestone, with several heavy bands of Nepheline Syenite, marked by crosses, while the black represents the Theralite, which forms the great mass of the mountain.

From the map, Fig. 4, it will be seen that the crystalline limestone is found at the margin, almost completely encircling the area occupied by the trap. Besides this, there are a few small, isolated patches near the Park Ranger's house, and it is also found extending across the lowest part of Mount Royal Cemetery, in the direction of the Westmount outcrop, but it can only be traced where excavations have been made, owing to a heavy covering of drift.

At the northern end of the mountain, the altered limestone passes in several places under the road near the Incline Railway, where it is 410 feet above the river. Further south, the Syenite appears at one point beyond the look-out, while on Westmount almost the whole of

the mountain included in the dotted shading is occupied by the altered limestone, the trap formation being represented by some heavy bands of Theralite, alternated by others of Syenite, of which there is also a small exposure further to the south, and shown by crosses at the point A outside the black line.

On the south and west sides, where the broken lines are shown, the rock is deeply covered with drift, and the line is consequently drawn to connect the nearest points where the formation can be seen.

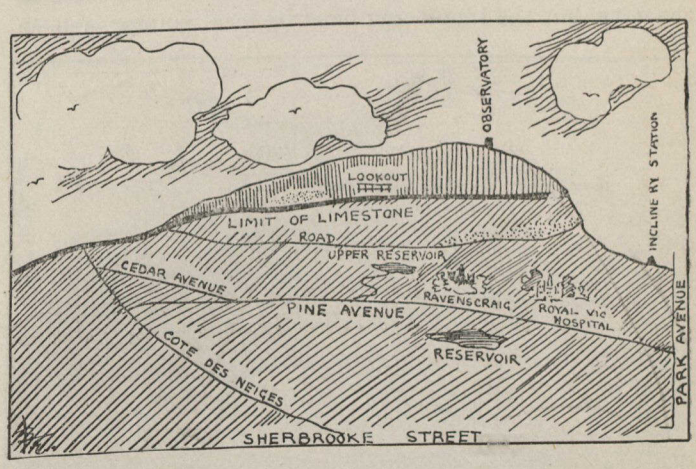

FIG. 1.

Beginning with the sketch Fig. 1, which shows the easterly side of the mountain, we have the view which is the most familiar. The black line showing the limit of the limestone, it will be seen, reaches well up to the top of the mountain. At a point near the centre of the sketch, a short distance to the east of Cote des Neiges road, this line reaches the summit, the height being about 660 feet above low water in the harbor.

From this point it runs in an easterly direction, passing below the look-out, where it is about 560 feet above the harbor, until it reaches the natural look-out point above

the high level reservoir, where it is 590 feet above the river.

A short distance to the south of this point there is an isolated patch of Utica shale, resting against the trap outside the black line on Fig. 4.

The summit of the mountain at the Observatory is 739 feet above the river, which would give a height of about 150 feet for the trap above the line of the limestone. These measurements may be considered as accurate, as they are taken from the plan in the Road Department of the city, but the line being fixed by local points, such as

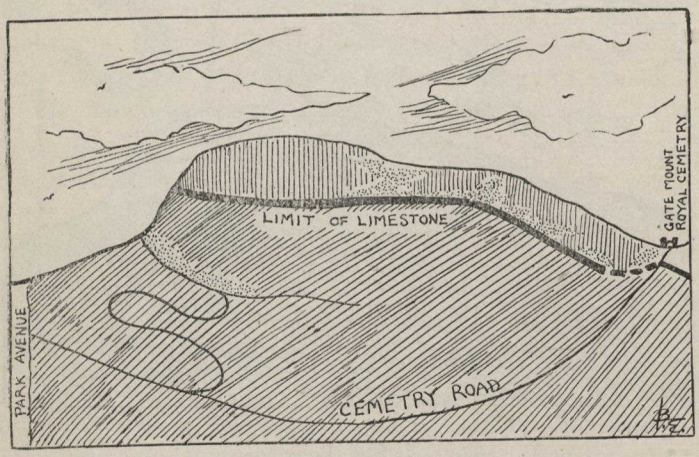

Fig. 2.

the look-out, roads or other marks, its location must necessarily be approximate, but sufficiently accurate to show its general position.

Passing towards the northern end of the mountain, the altered crystalline limestone is exposed in several places where the rock has been removed in making the road, its position being shown by the dotted shading on Fig. 1.

Fig. 2 shows the northern end of the mountain from a point near the Incline Railway to the Mount Royal Cemetery gate. This part, especially that near the

Incline Railway, which includes the bold, almost perpendicular bluff, is encumbered by large blocks of Theralite to such an extent that it is difficult to determine the limits of the different formations, but at least a fairly approximate idea can be formed as to their position from the exposures which can be seen at different points.

Here the altered limestone is also found exposed at different places, and towards the Cemetery it reaches well up to the top of the mountain, from which point it appears to extend across the Cemetery in the direction of Westmount.

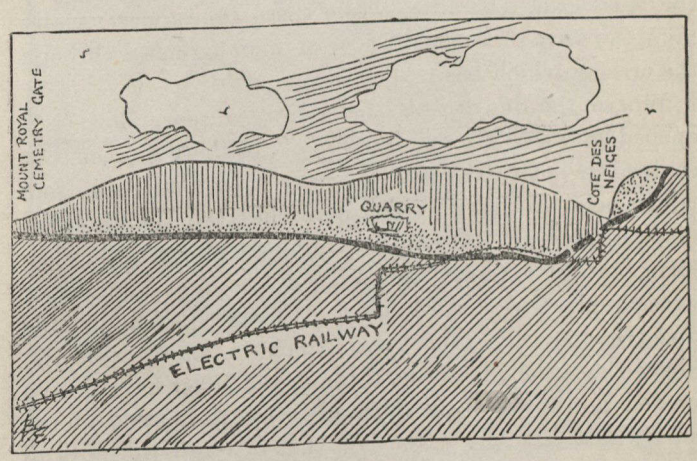

FIG. 3.

From the Cemetery gate, the division between the two formations runs in almost a direct line past Outremont Quarry, to a point near Cote des Neiges, where it crosses the Electric Railway, Fig. 3, and then re-crossing it in the direction of Westmount, passes under a heavy deposit of drift, by which it is concealed until it re-appears at the foot of the West-mount, or the Little Mountain.

From the Mount Royal Cemetery gate to Westmount there is a continuous and extensive exposure of altered limestone, that found in the Outremont Quarry being

the most highly crystalline, while the outbreak of Nepheline Syenite found at this point is of greater importance than at any other on the mountain, some of it having the appearance of a very fine granite. The specimens from the quarry show some of the different forms which are found at this part of the mountain.

Beyond the quarry the altered limestones occupy all the space between the railway and the points where the mountain begins to rise more abruptly, approximately shown by the narrow black line inside the larger one, the parts which present a rough, craggy appearance being for the most part Theralite, while these limestones usually take the form of a smooth floor or rounded mass, through the erosion which has taken place.

Where the line crosses the railway, a quarry has been opened, and the altered limestone can there be seen, but covered in places by the ordinary limestone rock, from which point to that at which it reaches the Theralite, the distance is about 100 yards, forming an almost level platform, cut in different directions by a large number of exceedingly hard, dark colored dykes, frequently cutting and crossing each other, and which in many cases rise above the softer limestone, through the latter having been eroded and worn away, apparently by the action of the surf which has left extensive beds of water-worn gravel covering the rock at different points to a considerable depth.

On the West-mount, or Little Mountain, what may be called the normal limestone completely covers the highest point, which a barometer reading gives as 600 feet, but which, however, has not been otherwise verified, the line passing near the southern limit of the McGill University property, thence past the western end of the reservoir on one side, and crossing Summit Avenue opposite the gate of Cote des Neiges Cemetery, Fig. 4.

This space, it will be seen, occupies a comparatively

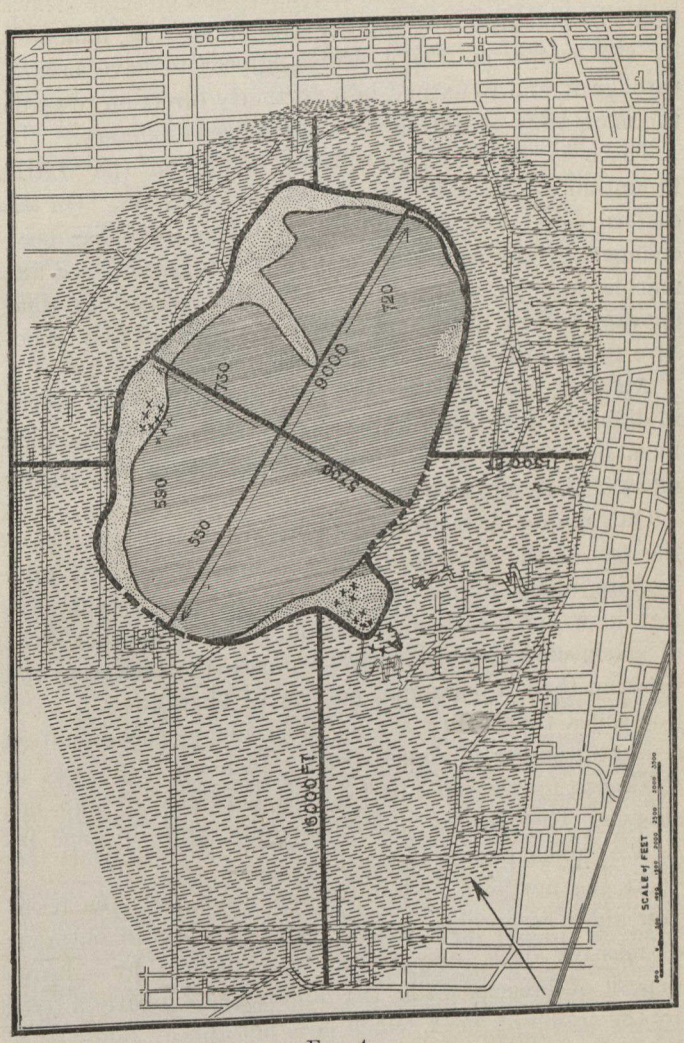

FIG. 4.

small part of the mountain, and is altogether covered by the altered limestone, with the exception of some heavy bands of Theralite and smaller ones of Syenite, indicated by the crosses on Fig. 4, which appear to have broken through it, and to extend in a northerly direction towards the main body of trap in Cote des Neiges Cemetery.

There is, however, at various points on the Little Mountain evidence of intense volcanic activity. On the eastern side, in a large quarry, the limestone has been changed by the action of heat so that it resembles a fine marble, and in some cases has been reduced to what appears to be a quicklime, which readily slacks on exposure to the atmosphere or moisture.

Another side of the quarry is cut by narrow dykes in different directions, while a large part of it is occupied by a breccia, cut by a heavy dyke of Theralite. Specimens of these are also shown.

On Summit Avenue, at a point about 100 feet below the top of the mountain, there is a large dyke of gray Syenite, about 8 feet in thickness. About twenty-five feet, in a north-easterly direction, there is another dyke of dark, close-grained trap 12 inches in thickness, and between them a horizontal outcrop of Theralite.

Besides this, there are on this side of the mountain a large number of dykes, from 1 inch up to $2\frac{1}{2}$ feet in thickness, for the most part a hard, dark colored trap, but showing Theralite at different points, and in some instances much decomposed.

At the northern end of the mountain, near the reservoir, there is another large quarry, showing an outbreak of massive, dark, fine-grained trap, flanked by a heavy deposit of breccia, while the limestone is greatly altered by the action of heat, which does not appear, however, to have produced the same effects on the lime as in the quarry on the eastern side, but left it with a dark bluish purple tint instead of white.

Questions of much interest are suggested by the conditions which are found to exist on a survey of the mountain, such as the age of the different outcrops of trap and their relation to each other, the conditions and the nature of the force which in one case has changed the limestone and apparently reduced it to something resembling a common quicklime, in another has given it a dark purple color, and in still another has changed it to a metamorphic rock, ranging from a soft, easily decomposed substance, on the one hand, to one that is hard and highly crystalline on the other.

A careful study of these and many other questions which arise in this connection would doubtless throw much light on the history of Mount Royal, and at the same time possibly add something to the sum of our general knowledge respecting such matters.

Some Recent Folds in the Lorraine Shales.

By Dr. Alfred W. G. Wilson, McGill University.

At the point on the north shore of Lake Ontario, about one mile west of Lorne Park, and fourteen miles west of Toronto, the Lorraine shales are exposed in a low cliff. Occasionally this cliff is fronted by a narrow gravel beach, but along most of the section, which is about one mile in length, the waves wash the foot of the cliff. Where the shales are exposed at the eastern end of the section, the cliff is about eight feet in height. The height increases slightly westward, the maximum section being about sixteen feet. The blue-grey shales are thin bedded, incoherent, and quite soft, with many small nodules which are somewhat arenaceous and occasionally pyritiferous. Interbedded with the shales are brown-tinted hard-bands of a ripple-marked calcareous sandstone, sometimes varying to

an arenaceous limestone. These bands vary from half an inch to about six inches in thickness. In cross section they are seen to be lenses varying from about twenty feet or less, to over two hundred yards in length. The distance between the hard bands varies from six inches to several feet. As a general rule the wider bands are separated by a greater thickness of softer shales. The average of a number of observations shows the dip of the beds to lie between twenty and twenty-five minutes towards a point about eight degrees west of south. The upper eight feet of the shales is more or less oxidized to a brownish tint.

These beds constitute the upper portion of the Lorraine shales, the reddish Medina sandstones appearing on the lake shore at a point a little further west, just east of Oakville.

The beds are capped by a covering of boulder-till varying in depth from a few inches to about three feet. The till carries a few boulders of gneiss and granite and numerous fragments of the harder sandstones. Where the till rests upon the soft shales, it is often difficult to determine the line of demarcation between the two.

The feature of particular interest in the section is the occurrence of a number of anticlinal folds in the upper beds. The first of these, from the west, is shown in Plate I. It occurs about fifty yards east of the road which comes down to the lake shore about two miles west of Lorne Park. At this place the cliff is about twelve feet in height, and the upper nine feet exposed above the shingle beach show the beds to be folded upward in a sharp anticline, the change from the nearly horizontal to a steep dip being quite abrupt. The fold is about seven feet across. The east side, as shown in the plate, is partly obscured by a recent fall of boulder clay, It is probable that the disturbance does not extend much below lake level. The arch of the anticline has been thrust upward into the boulder clay, so that now the shales at the arch

PLATE I.

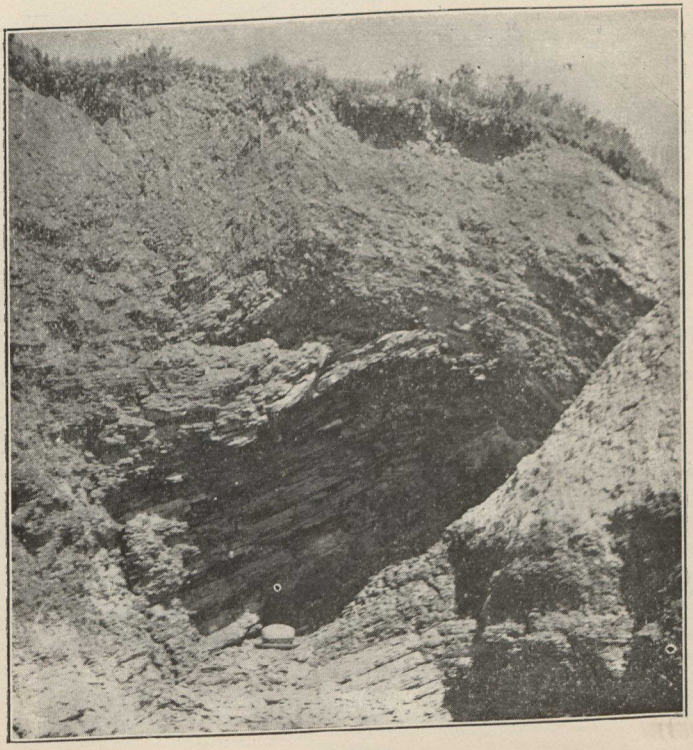

PLATE II.

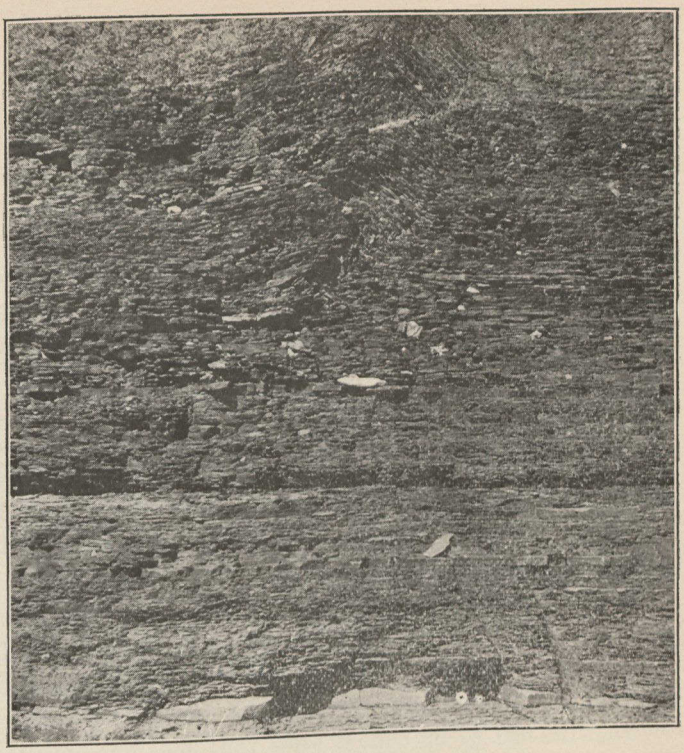

PLATE III.

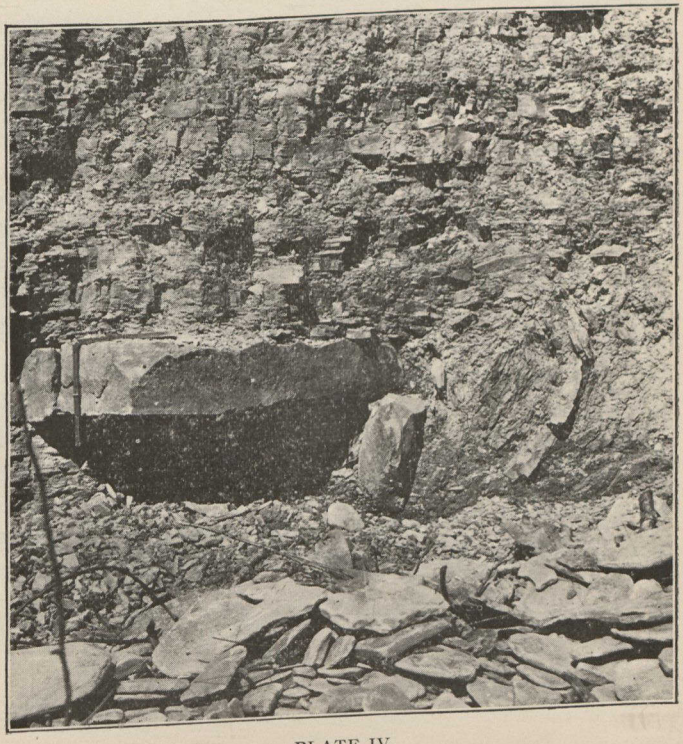

PLATE IV.

reach to the surface, the clay on either side over the undisturbed part being nearly three feet in depth.

The second fold occurs about seventy yards further east where the cliff section is about fourteen feet in height. This second fold (Plate II.) is somewhat larger, the folded part, as exposed above the shingle, being twelve feet in height. The lower part of the anticline, which contains some of the harder bands, before referred to, is thrust towards the east of north, while the upper portion, more free from harder beds, is nearly vertical and in places is thrust towards the west of south. The dome of this arch also reaches to the surface.

In both cases the shales are much crushed and fractured where they are pinched along the axes of the anticlines. It is probable that at one time both arches extended some distance above the present level of the ground, before the shoreline was cut back to its present position, and that they were evened off by the cultivation of the land overlying. In both cases the folding of the shales has materially weakened them, and as a result the waves have made a small incision along the axis of each fold. The axis of the first strikes N.10°W. and dips 73° towards the west.

Nearly a quarter of a mile further east there are a series of four small folds. One of them is shown in Plate III. This fold affects only the upper three and a half feet of the shales, is about three feet across, and the arch rises about twenty inches into the boulder clay, here thirty inches in depth. About ten feet west of the one shown in the plate, is a larger fold affecting about twice the depth of strata, but in such a position that it could not be photographed successfully. A few feet east of the one shown in the plate are two small folds, each affecting about three feet of the upper beds, but not more than ten inches across. The folding is well marked, however, as over the arches the shale beds are nearly vertical.

The most interesting fold of the series occurs just east of the end of the concession road, a short distance west of the first point on the laks shore west of Lorne Park. There are here two bands of sandstone interbedded with the shales, the lower one about four and a half inches in thickness and the upper about two inches. When the writer first noticed the anticlines, two years ago, the beds were folded so that the section appeared as shown in the figure (Figure 1). The upper portion of the

FIGURE 1.—Horizontal and vertical scales equal.

beds was somewhat obscured by mud which had trickled down with rain water from above, and the condition of the shales above the upper hard band was uncertain. On visiting the locality this spring it was found that the lake had cut back a short distance, exactly how far could not be ascertained, and the fold now presents the appearance shown in Plate IV. The lower heavy hard band has been fractured at the arch of the anticline and has been thrust forward into the softer shales. As now exposed the disturbance is confined to the beds in the immediate vicinity of this competent member; the overlying beds to the surface (about six feet) show no signs of disturbance.

A search for similar folds along the low sections exposed in a few small creeks in the vicinity failed to reveal their occurrence. Whether the similar folds occur in the Medina shales and sandstones west of Oakville is also uncertain. There are large sections of cliff which cannot be studied in detail unless we approach the front in a boat or canoe. The writer did not note any while traversing the section between Oakville and Hamilton on foot.

G. K. Gilbert has described some similar "small post-

glacial anticlines in the horizontal limestones of Jefferson County, N.Y., and in the shales near Dunkirk in the western part of the State, and states that they may have resulted from expansion caused by the warming up of the surface layers of the rocks as they recovered from the cold of the glacial period."[1] He has also described a similar small anticlinal disturbance of Devonian shales in Ripley, the most western township, of New York.[2] In a third paper he has described another similar form occurring at Thirty-Mile Point, New York.[3]

It is quite probable that the seven small folds which occur in the beds of this section are also to be attributed to the same cause. There are no salt wells or saline springs in the vicinity to cause folding by the sinking of the overlying strata as at Caledonia, New York.

1. "Some New Geologic Wrinkles," Amer. Jour. Sci., 3rd ser., Vol. 32, 1886, p. 324.

2. "Post-Glacial Anticlinal Ridges near Ripley and Caledonia, N.Y., Amer. Geol., Vol. 8, 1591, p. 230.

3. "Dislocation at Thirty-Mile Point, New York, Bull. Geol. Soc. Amer., Vol. 10, 1898, p. 131.

Proceedings of Natural History Society.

SECOND MONTHLY MEETING—SESSION 1901-'02.

Montreal, Nov. 25th, 1901.

The second monthly meeting was held this evening at 8.15 o'clock.

The chair was occupied by Prof. E. W. MocBride, and the following were also present:—J. A. U. Beaudry, Rev. R. Campbell, A. E. Norris, Alex. Robertson, W. Godbee Brown, R. W. McLachlan, R. R. Samuel, H. McLaren, Mrs. Duckett, Dr. H. B. Cushing, W. Ormiston Roy, J. S. Buchan, Prof. O. E. Leroy, Mrs. Snowdon, E. S. Phillips, C. S. J. Phillips and a great number of visitors.

The minutes of last meeting were read and approved.

The Curator, A. E. Norris, then reported the following donations to the Museum:—

Balloon Fish—Donor, J. G. McKergow.

Skull of Wolf—Donor, E. D. Wintle.

Skin of Rattle Snake—Donor, H. J. Tiffin.

Sparrow Hawk—Donor, Alfred Joyce.

120 specimens of British Wild Flowers—Donor, Rev. R. Campbell, D.D.

The Librarian then reported the following donations to the Library:—

"Popular Sociology," by Dr. Arthur Fisher, presented by the author.

"The Nature and Development of Animal Intelligence," by Dr. Wesley Mills, presented by the author.

It was then moved by J. A. U. Beaudry, seconded by Alex. Robertson, that the thanks of the Society be accorded to the above donors. Carried.

It was then resolved, on the recommendation of Council, that the thanks of the Society be tendered to the

Entomological Society, Microscopical Society and Messrs. Henry Morgan & Co. for the assistance rendered at the conversazione last month. Carried unanimously.

Mr. J. S. Buchan was then called upon to read a communication, "Some Notes on Mount Royal." Such a subject naturally created a lively discussion, the following taking part:—Prof. MacBride, Rev. R. Campbell, H. McLaren, A. E. Norris, Dr. H. B. Cushing and O. E. Leroy.

A vote of thanks, proposed by Prof. E W. MacBride, and seconded by C. S. J. Phillips, and unanimously carried, was tendered to the lecturer for what proved a very interesting and instructive paper.

There being no further business, the meeting then adjourned.

CHAS. S. J. PHILLIPS,
Recording Secretary.

E. W. MACBRIDE,
President.

THIRD MONTHLY MEETING—SESSION 1901-'02.

MONTREAL, Jan. 27th, 1902.

The third monthly meeting was held this evening at 8.15.

The chair was occupied by the President, Prof. E. W. MacBride. There were also present J. S. Buchan, A. E. Norris, Thos. Craig, H. McLaren, Dr. F. D. Adams, C. E. H. Phillips, A. Griffin, H. E. Vennor, C. S. J. Phillips, Jos. Fortier, Miss E. Luke, Edgar Judge, Miss Kay and a number of visitors.

On motion of J. S. Buchan, seconded by C. S. J. Phillips, the rule was suspended, and the following were elected ordinary members of the Society:—Thomas Craig and Miss Edith Luke. Prof. H. D. Adams then gave his communication, "Notes on Some Ore Deposits of Southern

British Columbia." This was ably treated by the author, many questions being answered by him in the discussion that followed.

A hearty vote of thanks, proposed by Prof. E. W. MacBride, seconded by J. S. Buchan, was then tendered to Dr. Adams for his interesting and instructive discourse.

The meeting then adjourned.

R. CAMPBELL,
Chairman pro tem.

FOURTH MONTHLY MEETING—SESSION 1901-'02.

MONTREAL, Feb. 24th, 1902.

The fourth monthly meeting of the Society was held this evening in the Library at 8 o'clock.

In the absence of the President, the chair was occupied by Albert Holden, and the following were also present:—Rev. R. Campbell, Hon. Mr. Justice Wurtele, Dr. Wesley Mills, H. McLaren, A. E. Norris, J. G. McKergow, H. C. Vennor, Miss E. Luke and A. Griffin. In the absence of C. S. J. Phillips, the Secretary, A. E. Norris was requested to act in his stead. On motion of the Rev. R. Campbell, seconded by A. E. Norris, the minutes of the last meeting were taken as read. Carried.

It was then proposed by the Rev. R. Campbell, seconded by H. McLaren, that the rules be suspended, and the following elected ordinary members of the Society:—J. Emile Vanier, C.E., and Henry J. Cohn. Carried.

As the Somerville lecture was to be delivered this evening, it was moved by H. McLaren, seconded by A. E. Norris, that this meeting be adjourned to the 3rd of March to enable Prof. O. E. Leroy and W. G. McNaughton to read their respective communications before the Society. Carried.

R. CAMPBELL,
Chairman pro tem.

FIFTH MONTHLY MEETING—SESSION 1901-'02.

MONTREAL, March 3rd, 1902.

The fifth monthly meeting of the Society was held this evening at 8.15, the chair being occupied by the Rev. R. Campbell, D.D. There were also present: Thomas Craig, F. W. Richards, A. E. Norris, J. Harper, Prof. O. E. Leroy, Alex. Robertson, Mrs. Duckett, J. G. McKergow, Mr. and Mrs. W. Godbee Brown, H. E. Vennor, A. Griffin, W. G. McNaughton, G. Sumner, C. S. J. Phillips, and a number of others.

The minutes of last meeting were read and confirmed.

It was then resolved, on motion of F. W. Richards seconded by Alex. Robertson, that the Rev. R. Campbell, C. S. J. Phillips and J. S. Buchan be a committee to draw up a resolution of condolence and forward same to the family of the late James Ferrier, who so ably filled the position of Treasurer to the Society from 1860 to 1874. Carried.

Mr. W. G. McNaughton, B.A., then gave his communication on "The Chateauguay Mounds," followed by Prof. O. E. Leroy, who read an interesting paper on "The Niagara Gorge." Both of the above papers were illustrated with lantern slides, adding greatly to what proved to be very instructive communications.

A vote of thanks, moved by Geo. Sumner, seconded by J. Harper, was accorded Messrs. Leroy and McNaughton, after which the meeting adjourned.

CHAS. S. J. PHILLIPS,
Recording Secretary.

E. W. MACBRIDE,
President.

SIXTH MONTHLY MEETING—SESSION 1901-'02.

MONTREAL, April 2nd, 1902.

The sixth monthly meeting of the Society was held this evening at 8.15, Prof. E. W. MacBride in the chair. There were also present: The Rev. R. Campbell, John Harper, J. A. U. Beaudry, H. McLaren, A. E. Norris, Hon. J. K. Ward, A. Holden, Prof. Binmore, F. W. Richards, Alex. Robertson, Mrs. Duckett, Rev. J. Y. Gilmour, Jos. Fortier, A. Griffin, C. S. J. Phillips and a number of visitors.

The minutes of last meeting were read and confirmed.

The report of Council was read and adopted.

Prof. E. W. MacBride then introduced Dr. J. Stafford, who then gave his paper, "Some Earth Worms of Canada," followed by Prof. E. W. MacBride, who gave a very interesting paper on the "Star Fish of Canada."

Both of the above communications were illustrated with the aid of lantern slides, and were much appreciated by an attentive audience.

A discussion followed, many questions being asked and replied to by both of the lecturers.

A vote of thanks, proposed by John Harper, and seconded by H. McLaren, was unanimously accorded to Prof. MacBride and Dr. Stafford for their very instructive and original papers.

It was then announced that the following papers would be read at the next monthly meeting of the Society:—

"Some of the Mushrooms of Canada," by Miss Van Horne.

"An Unusual Display of the Aurora Polaris," by Charles J. Stuart.

The meeting then adjourned.

WESLEY MILLS,
Chairman pro tem.

SEVENTH MONTHLY MEETING—SESSION 1901-'02.

MONTREAL, April 28th, 1902.

The seventh monthly meeting was held this evening, Dr. Wesley Mills occupied the chair. There were also present: J. A. U. Beaudry, A. E. Norris, J. G. McKergow, H. McLaren, A. Holden, Jos. Fortier, Miss Van Horne, Rev. J. Y. Gilmour, A. Griffin, J. Harper and about 50 others.

On motion, the minutes of last meeting were taken as read.

The Curator, A. E. Norris, then reported the following donations :—

Nest of Red-eyed Vires, 2 Green Snakes—Donor, A. E. Norris.

A number of Indian Relics—Donor, Thomas Roddick, M.D.

On motion of F. W. Richards, seconded by the Rev. R. Campbell, a hearty vote of thanks was accorded the above donors.

Miss Van Horne then read her paper, "Some of the Mushrooms of Canada." The subject was treated in a very exhaustive manner, and was additionally interesting on account of the number of specially prepared lantern slides.

Mr. Charles J. Stuart then gave his communication, 'An Unusual Display of the Aurora Polaris." This proved to be a very interesting paper, many-colored diagrams made by the author assisting everyone to a proper grasp of the subject.

On motion of the Rev. R. Campbell, seconded by C. S. J. Phillips, a vote of thanks was unanimously tendered to Miss Van Horne and Mr. Stuart for their valuable and interesting communications. Carried.

ANNUAL MEETING.

The adjourned annual meeting of the Natural History Society of Montreal was held in the hall of the Society on Monday evening, June 9th, 1902, Hon. Justice Würtele in the chair, in the absence of the President.

There were present, among others, the following:—Messrs. J. H. Joseph, A. Holden, J. A. U. Beaudry, Prof. Frank D. Adams, Joseph Fortier, John Harper, H. McLaren, Alex. Robertson, A. E. Norris, Rev. Dr. R. Campbell, J. S. Buchan, F. W. Richards, Dr. Wesley Mills, Edgar Judge, Hon. J. K. Ward, J. G. McKergow, C. S. J. Phillips and A. Griffin.

The following donations were reported since the last monthly meeting:—

From Frank Wilkinson—Coronation Medal of Queen Victoria.

From H. J. Tiffin—Alligator Eggs.

The minutes of last annual meeting were held as read and approved of.

Reports of their proceedings for the year were presented by the Council, Editing and Exchange Committee, House Committee, Curator, Librarian, Lecture Committee, and Treasurer, which were severally received and adopted.

The election of office-bearers for the year was then proceeded with, the result being as follows:—

NATURAL HISTORY SOCIETY OF MONTREAL.

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HIS EXCELLENCY THE GOVERNOR-GENERAL OF CANADA.

Hon. President:

LORD STRATHCONA AND MOUNT ROYAL.

President:

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A. HOLDEN.
J. H. JOSEPH.
DR. T. WESLEY MILLS.
PROF. D. P. PENHALLOW.
HON. J. K. WARD.

HON. JUSTICE WÜRTELE.

Hon. Recording Secretary :
F. W. RICHARDS.

Hon. Corresponding Secretary :
J. A. U. BEAUDRY, C.E.

Honorary Treasurer :
CHAS. S. J. PHILLIPS.

Honorary Curator :
A. E. NORRIS.

Members of Council :

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J. S. BUCHAN, K.C., B.C.L.
S. FINLEY.
JOSEPH FORTIER.
JOHN HARPER.
EDGAR JUDGE.
H. MCLAREN.
J. G. MCKERGOW.

Editing and Exchange Committee :

REV. ROBT. CAMPBELL, M.A., D.D., *Chairman.*

FRANK D. ADAMS, Ph.D., F.R.S.C.
J. S. BUCHAN, K.C., B.C.L.
PROF. J. T. DONALD.
A. T. DRUMMOND, LL.D., Kingston, Ont.
PROF. E. W. MACBRIDE, M.A., Sc.D.
H. MCLAREN.
G. F. MATTHEW, St. John, N.B.
T. WESLEY MILLS, M.A., M.D.
J. F. WHITEAVES, Ottawa, Ont.

Subsequently the Council met, and the following Committees were struck :—

Library Committee :

H. MCLAREN, *Chairman.*

J. A. U. BEAUDRY, C.E.
JOSEPH FORTIER,
ALFRED GRIFFIN.
A. E. NORRIS.
C. M. TOD.
C. T. WILLIAMS.

Museum Committee :

A. E. NORRIS, *Chairman.*

REV. ROBT. CAMPBELL, M.A., D.D.
A. HOLDEN.
O. E. LEROY, B.A.
PROF. E. W. MACBRIDE, M.A., Sc.D.
J. G. MCKERGOW.
C. J. STUART.
H. E. VENNOR.

Field Work Committee :

C. T. WILLIAMS, *Chairman.*

FRANK D. ADAMS, Ph.D., F.R.S.C.
PROF. J. BEMROSE, F.I.C., F.C.S.
J. S. BUCHAN, K.C., B.C.L.
REV. ROBT. CAMPBELL, M.A., D.D.
REV. G. COLBORNE HEINE.
O. E. LEROY, B.A.
PROF. E. W. MACBRIDE, M.A., Sc.D.
F. W. RICHARDS.
ALEX. ROBERTSON.

Lecture Committee :

N. N. EVANS, M.A.Sc., *Chairman.*

J. S. BUCHAN, K.C., B.C.L.
REV. ROBT. CAMPBELL, M.A., D.D.
PROF. JOHN COX, M.A.
B. J. HARRINGTON, Ph.D., F.R.S.C.
REV. G. COLBORNE HEINE.
EDGAR JUDGE.
DR. T. WESLEY MILLS.
CHAS. S. J. PHILLIPS.
HON. JUSTICE WÜRTELE.

House Committee :

ALBERT HOLDEN, *Chairman.*

F. W. RICHARDS.
C. T. WILLIAMS.

REPORT OF COUNCIL.

To the Officers and Members of the Natural History Society of Montreal :

Ladies and Gentlemen,—

Your Council beg to submit the following Report for the year ending May 31st, 1902:

The usual meetings of Council have been held during the past session, for the reception of reports from the various Committees, and discussion of all other business, before being submitted to the regular monthly meetings of the Society.

We have to deplore the removal by death of the following members during the past year:—Messrs. Andrew Allan, E. A. Small, Hector Mackenzie, A. S. Ewing, E. L. Bond,—and James Ferrier. The last named gentleman was a member of long standing, a former treasurer, and, up to a recent period, an active and useful member. Advancing age, and physical infirmity alone, for the last few years, prevented his taking any prominent part in our sessions. He will long be remembered for his geniality, kindliness and courtliness. The Society is fortunate that the name of Ferrier will still be identified with our work in the person of his son, Mr. Walter Ferrier, of the Geological Department, Ottawa.

Thirteen new members have been elected during the

session, and it is hoped that a renewed and energetic effort will be made by the new Membership Committee, assisted by all the members, to greatly increase this record during the coming season.

Your Council is pleased to be able to report a better attendance at the regular monthly meetings, evincing a deeper interest in the work of the Society. The papers submitted have been of a high order, and many spirited and interesting discussions took place. The following is the list:—

Nov. 25.—"Some notes on Mount Royal," by J. S. Buchan, K.C., B.C.L.

Jan. 27.—"Notes on some ore deposits of Southern British Columbia," by F. D. Adams, Ph.D., F.R.S.C.

March 3.—"The Chateauguay Mounds," by W. G. MacNaughton, B.A.

March 3.—"The Niagara Gorge," by Prof. O. E. Leroy.

April 2.—"The star fish of Canada," by the President.

April 2. "Some earthworms of Canada," by Dr. Stafford.

May 2.—"Some of the mushrooms of Canada," by Miss Van Horne.

May 2.—"An unusual display of the Aurora Polaris," by Charles J. Stuart.

The Somerville Course of lectures was also very well attended, as were the Saturday afternoon half hour talks to young folks, particulars of which will no doubt be given by the Lecture Committee, who are worthy of commendation for the successful result of their efforts.

The Annual Field Day was, on the invitation of Judge Foster, of Knowlton, held at Lake Bonnalie, on

the side of Mount Orford, and, thanks to the Judge's hospitality, proved a very enjoyable outing. Unfortunately, however, it was not a success from a financial point of view. The indications for this year, we are glad to say, are more favorable in this respect.

The visitors to the Museum have been more numerous than ever, many schools and colleges availing themselves of the opportunity of viewing our excellent collections.

The Superintendent, Mr. A. Griffin, ably assisted by Mrs. Griffin, have thoroughly and efficiently performed the duties allotted to them.

Respectfully submitted,

F. W. RICHARDS,
Chairman of Council.

REPORT OF THE EDITING AND EXCHANGE COMMITTEE.

Your Editing and Exchange Committee beg leave to report that two numbers of the Record of Science were issued during the year, one in August, and another in February, making 158 pages, overrunning the space supposed to be covered by two issues by thirty pages. But there was a press of matter in the hands of the Committee which they were anxious to publish at once. The seven numbers of Volumes VIII., have already taken up 492 pages,—so that the last issue must be a small one, of only 34 pages, if the volume is to be kept within the limits prescribed in the contract with the printer. The reports to be submitted at the annual

meeting must find a place in the remainder of the volume, leaving little space for other matter.

The contents of the two numbers issued during the year, have been of the high order usual in the "Record of Science," consisting mainly of the papers submitted to the Society at the monthly meetings; and the varied exchanges received in former years have continued to come to the Library, adding greatly to its value.

In name and by authority of the Committee,

ROBERT CAMPBELL,
Chairman.

MUSEUM REPORT,—SESSION 1901-1902.

Gentlemen,—

I think I may safely say that the Museum this year has been a success, in more ways than one. The Saturday afternoon lectures have proved very popular, as many as four hundred children being present at a time, which is most encouraging, showing an awakened interest in Natural History, as a result of these illustrated lectures.

A larger number of people have visited the Museum this year, in consequence, no doubt, of the admission fee being abolished.

With the assistance of the Museum Committee a number of the birds have been dusted and treated with benzine, and several cases containing fossils and minerals re-papered and cleaned. One noticeable defect is that in some instances there is not room for the donations to be advantageously displayed.

The matting on the centre staircase was renewed, and

twenty-five new metal-plates painted and placed on different specimens.

A successful conversazione was held by the Society on Oct. 28th, 1901, at which the Microscopic and Entomological Societies contributed interesting specimens, and also six large cases of the Dental Collection, loaned for this occasion.

I would like to call the attention of the House Committee to the condition of the windows in the skylight as the sun penetrates the worn panes, bleaching many of the specimens. We experienced considerable annoyance during the conversazione with the inefficient lighting of the Museum. The effect of the Entomological exhibits was entirely lost through this cause.

The donations this year were of various kinds, and include 200 specie of Swiss and English plants, from Dr. Campbell, as will be found recorded in the minute book. As the Society has already seen them, it will not be necessary to give them again in detail.

Respectfully submitted,

A. E. NORRIS,
Curator.

REPORT OF THE LIBRARY COMMITTEE.

This Committee was summoned in October, 1901, but sufficient members did not respond to form a quorum. The Committee was not again called during the season.

The Chairman and Mr. Griffin have devoted considerable time to cleaning and clearing up the large accumu-

lation of books, periodicals, etc., that had been for a long time obstructing the floor. Room has been found for most of them by doubling the rows on some of the shelves, but this is not a convenient or satisfactory method of disposal. There is a very large number of unbound volumes, and it is hoped the Society may be able to make an appropriation, early next season, sufficient for the binding of these, and for the purchase of additional shelf accommodation.

H. McLAREN,
Chairman.

June 9th, 1902.

REPORT OF THE LECTURE COMMITTEE.

The lectures of the Somerville Course were of a high order of successful merit, and the attendance was encouraging.

The subjects, dates and lecturers were as follows:—

Feb. 20th.—"The place occupied by water in the economy of Nature," Howard T. Barnes, D.Sc.

Feb. 24th.—"Marine Station Work in the Straits of Fuca," Prof. Conway McMillan.

Mar. 6th.—"How we get our knowledge of the world about us," Wesley Mills, M.A., M.D.

Mar. 13th.—"The history of the progress of Botany in the Nineteenth Century," Rev. Robert Campbell, D.D.

Mar. 20th.—"Alchemy. A chapter in the History of Science," Feredrick Loddz, B.A., Oxon.

Mar. 27th.—"Some lessons to be drawn from the Life History of Frogs and Newts," E. W. MacBride, M.A., D.Sc.

The Saturday afternoon talks to children were more popular than ever, many, on one or two occasions, being turned away.

The course was as follows:—

Feb. 15th.—"History of a loaf of Bread," J. S. Buchan, K.C., B.C.L.

Feb. 22nd.—"What we eat and what becomes of it," Prof. Wesley Mills, M.D.

Mar. 1st.—"About our Hearts," W. S. Morrow, M.D.

Mar. 8th.—"Hygiene," D. J. Evans, M.D.

Mar. 15th.—"Water Babies," C. T. Williams, Esq.

Mar. 22nd.—"Mosquitoes," Thomas Craig, F.R.M.S.

Mar. 29th.—"Montreal Asters and Golden Rods," Rev. Robert Campbell, D.D.

April 5th.—The Butterflies and Moths of Mount Royal," A. E. Norris, Esq.

An important question in regard to the future of the Somerville Course has been under discussion, but as yet no conclusion has been reached.

WESLEY MILLS,
Chairman.

Natural History Society of Montreal

IN ACCOUNT WITH

J. G. McKergow, *Hon. Treasurer.*

Cash Statement for Year ended 31st May, 1902.

To Rents		$913 00		
" Members' Subscriptions		534 00		
" Record of Science		16 20		
" Conversazione		132 90		
" Bank Loans		888 46		
" Balance due Treasurer 31st May, 1902		47 93		
			$	2 80
By Balance due former Treasurer 1st June, 1901				640 00
" Superintendent's Salary and Commission				110 58
" Record of Science				131 19
" Repairs				144 69
" Sundry Expenses				192 50
" Lighting Account				124 62
" Fuel "				10 25
" Printing "				30 25
" Lecture "				34 92
" Taxes				7 50
" Field Day Deficit				13 80
" Museum Account				146 75
" Conversazione				911 19
" Deposits to credit of Loans				19 45
" Interest on Loans				12 00
" Cash on hand				
		$2532 49	$2532 49	

Bank Account.

Due Bank 1st June, 1901		$461 65		
" " Additional Loans		888 46		
			$911 19	
Paid " on account of Loans			438 92	
Due " 21st May, 1902				
		$1350 11	$1350 11	

In addition to the amounts due the Bank and the Treasurer, there were unpaid accounts of $280.33, or a total liability of $767.18 at 31st May, 1902.

Audited and found correct this 9th June, 1902.

J. G. McKergow,
Hon. Treasurer.

Alexander Robertson.
H. McLaren.

INDEX.

ABSTRACT FOR THE MONTH OF JANUARY, 1902

Meteorological Observations, McGill College Observatory, Montreal, Canada. Height above sea level, 187 feet. C. H. McLEOD, *Superintendent.*

DAY	THERMOMETER. † Mean.	Max.	Min.	Range.	* BAROMETER. † Mean.	Max.	Min.	Range.	‡Mean relative humidity.	WIND. General direction.	Mean velocity in miles per hour	Per cent. possible Sunshine.	Rainfall in inches.	Snowfall in inches.	Rain and snow melted.	DAY.
1	—0.55	5.6	—8.5	14.1	30.44	30.58	29.97	.61	88	W.	25.6	80	....	....	....	1
2	17.52	34.3	3.1	31.2	30.00	30.57	29.60	.97	80	S.E.	23.6	00	....	0.5	0.05	2
3	12.84	34.0	2.3	31.7	29.95	30.25	29.60	.65	82	N.W.	24.2	39	....	0.1	0.01	3
4	0.14	4.5	—3.8	8.3	30.38	30.42	30.25	.17	85	W.	24.4	00	....	....	....	4
SUNDAY..... 5	19.35	25.5	4.5	21.0	30.23	30.38	30.17	.21	85	S.W.	15.5	00	....	0.8	0.05	5.....SUNDAY
6	15.97	25.5	13.0	12.5	30.27	30.30	30.22	.08	85	N.E.	13.3	00	....	0.2	0.02	6
7	12.67	16.2	9.5	6.7	30.18	30.22	30.15	.07	85	E.	14.1	00	....	....	....	7
8	16.87	20.0	12.5	7.5	30.23	30.18	30.11	.07	80	N.E.	15.1	73	....	0.0	0.00	8
9	17.84	23.7	12.4	11.3	30.12	30.18	30.05	.13	87	E.	8.6	51	....	....	....	9
10	18.49	21.8	14.0	7.8	29.86	30.05	29.73	.32	87	N.W.	7.5	00	....	....	....	10
11	18.68	22.0	16.2	5.8	29.56	29.73	29.44	.29	92	N.E.	11.4	00	....	0.5	0.05	11
SUNDAY.....12	18.08	20.4	16.3	4.1	29.26	29.44	29.17	.26	90	N.W.	19.8	00	....	5.6	0.52	12.....SUNDAY
13	14.96	18.0	10.7	7.3	29.61	29.81	29.30	.51	85	W.	22.1	00	....	1.5	0.15	13
14	6.23	14.0	—2.0	16.0	29.99	30.04	29.81	.23	73	W.	20.5	43	....	....	....	14
15	14.61	20.0	6.4	13.6	29.85	30.01	29.82	.19	91	E.	16.7	00	....	1.4	0.14	15
16	22.72	28.0	11.8	16.2	29.82	29.96	29.75	.21	92	W.	14.6	00	....	6.1	0.20	16
17	0 17	11.8	—8.4	20.2	30.06	30.12	29.96	.16	83	S.W.	13.0	71	....	....	....	17
18	11.82	26.0	1.7	24.3	29.82	30.03	29.66	.37	92	S.	15.2	00	....	1.9	0.22	18
SUNDAY.....19	12.72	28.0	0.0	28.0	30.11	30.39	29.66	.73	81	W.	24.3	82	....	0.0	0.00	19.....SUNDAY
20	3.52	14.0	—2.8	16.8	30.43	30.48	30.38	.10	89	W.	10.6	62	....	....	....	20
21	10.04	24.5	—2.3	26.8	30.19	30.38	30.02	.36	81	N.E.	10.5	00	....	4.3	0.43	21
22	30.70	32.6	24.5	8.1	29.63	30.02	29.43	.59	93	N.E.	16.3	00	0.61	1.0	0.71	22
23	22.82	32.0	16.5	15.5	29.55	29.69	29.43	.26	87	W.	12.9	22	....	1.3	0.13	23
24	13.40	17.0	9.8	7.2	29.95	30.19	29.69	.50	77	W.	15.8	87	....	....	....	24
25	12.90	20.0	5.8	14.2	30.50	30.54	30.19	.35	85	N.E.	4.8	16	....	....	....	25
SUNDAY.....26	19.10	35.3	2.9	32.4	30.27	30.54	29.99	.55	92	S.	16.0	00	....	1.4	0.14	26.....SUNDAY
27	26.25	38.0	14.5	23.5	29.92	30.11	29.80	.31	81	S.W.	32.7	33	0.20	0.0	0.20	27
28	6.20	14.5	—2.1	16.6	30.52	30.68	30.11	.57	83	W.	33.7	83	....	0.0	0.00	28
29	1.95	9.0	—5.1	14.1	30.59	30.71	30.42	.29	69	W.	18.0	95	....	....	....	29
30	8.49	13.1	3.6	9.5	30.34	30.44	30.29	.15	76	W.	14.1	95	....	....	....	30
31	2.56	8°0	—4.7	12.7	30.42	30.50	30.33	.17	81	N.E.	10.7	64	....	....	....	31
Means.....	13.19	21.20	5.56	15.65	30.066	30.224	29.887	.336	84.4	W.5°6'S.	16.95	32.4	0.81	26.6	3.02	.....Sums.
28 Years means for and including this month	12.35	20.73	4.46	16.26	30.051	.....	.....	.333	82.5	....	§ 16.60	¶34.81	0.855	29.91	3.702	28 Years means for and including this month.

ANALYSIS OF WIND RECORD.

Direction.....	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	CALM.
Miles	421	1479	1053	826	1085	795	6471	488	
Duration in hrs..	25	123	98	46	61	32	320	39	
Mean velocity....	16.8	12.0	10.8	18.0	17.8	24.8	20.2	12.5	

Greatest mileage in one hour was 45 on the 27th.

Greatest velocity in gusts was 48 on the 27th.

Resultant mileage, 4710.

Resultant direction, W. 5° 6′ S.

Total mileage, 12,608.

* Barometer readings reduced to sea-level and temperature 32° Fahrenheit.

† Mean of bi-hourly readings taken from self-recording instruments.

‡ Humidity relative, saturation being 100. Mean of observations at 8, 15 and 20 hours.

¶ 21 years only. § 16 years only.

The greatest heat was 38.0° above zero on the 27th; the greatest cold was 8.5° below zero; on the 1st; giving a range of temperature of 46.5°. Warmest day was the 27th. Coldest day was the 1st.

Highest barometer reading was 30.71 on the 29th; lowest barometer was 29.17 on the 12th, giving a range of 1.54 inches.

Minimum relative humidity observed was 61 on the 14th.

Rain fell on 2 days.

Snow fell on 18 days.

Rain or snow fell on 18 days.

Fog on the 18th, 20th and 25th.

ABSTRACT FOR THE MONTH OF FEBRUARY, 1902

Meteorological Observations, McGill College Observatory, Montreal, Canada. Height above sea level, 187 feet. C. H. McLEOD, *Superintendent.*

DAY	THERMOMETER. † Mean.	Max.	Min.	Range.	* BAROMETER. † Mean.	Max.	Min.	Range.	‡Mean relative humidity.	WIND. General direction.	Mean velocity in miles per hour	Per cent. possible Sunshine.	Rainfall in inches.	Snowfall in inches.	Rain and snow melted	DAY.
1	11.90	20.0	3.7	16.3	30.21	30.33	30.10	.23	95	N. E.	9.8	00	....	4.9	0.43	1
									96	N.E.	25.1	00	....	1.35	1.35	2.....SUNDAY
SUNDAY..... 2	24.53	29.7	20.0	9 7	29.48	30.10	28 89	1 21	89	W.	35 8	00	....	3.6	0.36	3
3	11.78	23.5	2.6	20.9	29.29	29.61	28 89	.72	89	W.	14.4	23	....	0.1	0.01	4
4	5.04	12.0	—2 7	14.7	29.70	29.77	29.61	.16	85	W.	9.8	69	....	....	....	5
5	0.46	12.2	1.8	10.4	29.98	30.15	29.77	.38	82	W.	14.0	65	....	....	....	6
6	5.65	13.0	—1.7	14.7	30.09	30.15	30.02	.13		W.	4.9	00	....	0.1	0.01	7
7	6 21	11.4	—3.4	14.8	29.78	30.02	29.62	.40	93	W.	35.2	00	....	3.8	0.38	8
8	11.92	18.4	6.3	12.1	29.39	29 62	29 23	.39	92							
										N.W.	25.6	00	....	0.5	0.05	9.....SUNDAY
SUNDAY..... 9	25.22	30.0	18.4	11.6	29 44	29.59	29 23	.36	83	W.	27.8	42	....	0.1	0.01	10
10	14.65	21.4	3.9	17.5	29.68	29.76	29.59	.17	83	W.	18.9	66	....	1.4	0.11	11
11	7.90	14.7	1 1	13.6	29.73	29 77	29.68	.09	86	N.E.	9.6	15	....	0.5	0.03	12
12	9.63	14.0	5.2	8.8	29.79	29 91	29.68	.23	89	N.W.	15.8	00	....	....	....	13
13	13.17	20.0	5.9	14.1	29.89	30.05	29 90	.15	83	W.	20.0	87	....	....	....	14
14	20.80	25.8	17 0	8.8	30.14	30.18	30.05	.13	83	N.W.	11.2	85	....	....	....	15
15	15.56	19.5	11.2	8.3	30.23	30.26	30.18	.08	85							
									86	W.	6.7	08	....	....	....	16.....SUNDAY
SUNDAY.....16	8.60	15 9	1.3	14.6	30.11	30.25	29.92	.33	88	N.E.	22.2	00	....	1.5	0.15	17
17	16.17	23.4	7.4	16.0	29.61	29 92	29.22	.70	88	W.	22.6	00	....	3.5	0.35	18
18	22 67	27.5	16.8	10.7	29.18	29.32	29.22	.10	84	W.	33.0	62	....	0.3	0.03	19
19	13.31	16.8	9.9	6.9	29.78	30.13	29.32	.81	80	W.	31.1	77	....	....	....	20
20	15.60	25.7	5.5	20.2	30.19	30.22	30.12	.10	83	W.	11.3	34	....	....	....	21
21	22 00	27.2	16.8	10.4	30.17	30.24	30.09	.15	78	N.E.	18.3	61	....	....	....	22
22	18.85	27.0	10.7	16.3	30.01	30.09	29.96	.13								
										N.E.	10.7	77	....	....	....	23.....SUNDAY
SUNDAY.....23	16.87	22.2	10.0	12.2	30.03	30.06	29.98	.08	75	S.	12.3	00	....	0.7	0.07	24
24	24.10	32.0	14.6	17.4	30 03	30.06	29.97	.09	87	N.E.	7.8	21	....	....	....	25
25	32.19	34.9	29 1	5.8	30.19	30.16	30.04	.12	97	N.E.	8.6	20	....	....	....	26
26	32.08	37.4	24.0	13.4	29.86	30.05	29.75	.30	87	N.E.	8.1	72	....	....	....	27
27	35.53	39.0	34.0	5.0	29.82	29.85	29.75	.10	79	S.E.	16.8	00	0.05	....	0.05	28
28	39.05	46.6	31.7	14.9	29.67	29.84	29.43	.41	88							
Means..... ...	17.34	23.61	10.75	12.86	29.838	29.980	29 686	.295	86.2	W.25°36′ N.	17.50	31.5	0.05	34.5	3.39	.....Sums.
28 Years means for and including this month	15.62	23.44	7.54	15.86	30.010	.....	.....	.307	80.7	....	‡ 18.22	¶41.58	0.766	23.51	3.082	28 Years means for and including this month.

ANALYSIS OF WIND RECORD.

Direction.....	N.	N.E.	E.	S E.	S.	S.W.	W.	N.W.	CALM.
Miles	385	2717	517	303	337	276	6265	936	
Duration in hrs..	34	172	53	24	31	24	274	52	8
Mean velocity....	11.3	15.8	9.8	12.6	10 9	11.5	22.8	18.4	

Greatest mileage in one hour was 49 on the 8th.

Greatest velocity in gusts was 52 on the 3rd and 8th.

Resultant mileage, 4965.

Resultant direction, W. 25° 36′ N.

Total mileage, 11,758.

* Barometer readings reduced to sea-level and temperature 32° Fahrenheit.

† Mean of bi-hourly readings taken from self-recording instruments.

‡ Humidity relative, saturation being 100. Mean of observations at 8, 15 and 20 hours.

¶ 21 years only. ‡ 16 years only.

The greatest heat was 46.6° above zero on the 28th; the greatest cold was 3.4° below zero on the 7th; giving a range of temperature of 50.0°. Warmest day was the 28th. Coldest day was the 7th.

Highest barometer reading was 30.33 on the 1st; lowest barometer was 28.29 on the 2nd, giving a range of 1.44 inches.

Minimum relative humidity observed was 70 on the 23rd.

Rain fell on 1 day.

Snow fell on 14 days.

Rain or snow fell on 15 days.

Fog on the 6th, 7th 24th and 25th.

Lunar Halo on the 16th and 23rd.

ABSTRACT FOR THE MONTH OF MARCH, 1902

Meteorological Observations, McGill College Observatory, Montreal, Canada. Height above sea level, 187 feet. C. H. McLEOD, *Superintendent.*

DAY	THERMOMETER. † Mean.	Max.	Min.	Range.	* BAROMETER. † Mean.	Max.	Min.	Range.	‡Mean relative humidity.	WIND. General direction.	Mean velocity in miles per hour	Per cent. possible Sunshine.	Rainfall in inches.	Snowfall in inches.	Rain and snow melted.	DAY.
1	40.69	45.7	36.7	9.0	29.46	29.64	29.31	.33	93	S. W.	16.5	00	0.50	....	0.50	1
SUNDAY..... 2	36.09	38.8	33.9	4.9	29.31	29.64	28.87	.77	97	N. E.	20.2	00	1.75	....	1.75	2.....SUNDAY
3	31.89	38.0	26.4	11.6	29.39	29.64	28.87	.77	90	W.	31.5	00	....	....	0.8	0.08 3
4	22.75	27.0	18.0	9.0	29.92	30.11	29.64	.47	72	W.	20.1	00	....	....	0.1	0.01 4
5	21.88	25.6	17.0	8.6	30.05	30.16	29.92	.24	71	N.E.	12.4	01	....	....	....	 5
6	18.87	24.2	12.4	11.8	30.03	30.09	29.90	.19	77	N.	17.0	92	....	....	....	 6
7	29.37	37.7	22.0	15.7	30.19	30.45	30.06	.39	72	S.W.	15.4	00	....	....	....	 7
8	17.48	22.5	10.0	12.5	30.51	30.60	30.38	.22	72	N.E.	10.9	72	....	....	....	 8
SUNDAY..... 9	27.06	31.0	18.2	12.8	30.17	30.38	30.10	.28	94	N.E.	8.3	00	....	4.7	0.58	9.....SUNDAY
10	30.47	34.1	27.3	6.8	30.27	30.34	30.13	.21	74	N.	9.1	95	....	....	....	10
11	33.89	41.1	24.0	17.1	30.09	30.33	29.91	.42	84	S.	19.7	35	0.05	....	0.05	11
12	38.51	42.5	36.0	6.5	29.77	29.91	29.56	.35	97	W.	10.9	00	0.28	....	0.28	12
13	33.91	36.8	28.0	8.8	29.09	30.08	29.44	.64	80	N.E.	21.7	00	0.18	0.4	0.22	13
14	24.66	29.3	19.1	10.2	30.38	30.48	30.08	.40	69	N.	9.5	87	....	....	....	14
15	35.38	44.8	20.9	23.9	30.38	30.48	30.24	.24	66	S.E.	14.6	61	....	....	....	15
SUNDAY.....16	42.28	48.2	35.7	12.5	30.03	30.24	29.79	.45	93	S.E.	23.1	00	0.97	....	0.97	16.....SUNDAY
17	34.64	47.7	26.6	21.1	29.93	30.05	29.70	.35	69	W.	27.9	00	....	....	....	17
18	24.63	30.1	20.1	10.0	30.10	30.14	30.05	.09	66	N.W.	14.0	94	....	0.0	0.00	18
19	22.85	30.2	15.8	14.4	29.96	30.11	29.88	.23	81	N.	19.7	00	....	1.6	0.20	19
20	36.06	44.0	30.2	13.8	29.87	29.91	29.83	.08	86	N.	11.8	00	0.14	....	0.14	20
21	43.46	49.7	37.3	12.4	29.96	30.03	29.87	.16	77	N.E.	11.9	31	0.09	....	0.09	21
22	44.75	50.6	39.0	11.6	30.03	30.07	30.01	.06	75	W.	12.2	44	....	....	....	22
SUNDAY.....23	40.72	48.0	33.5	14.5	30.05	30.08	30.02	.06	56	N.	14.2	95	....	....	....	23.....SUNDAY
24	36.06	42.0	30.2	11.8	30.14	30.18	30.08	.10	60	N.E.	12.7	88	....	....	....	24
25	36.86	45.0	31.0	14.0	30.26	30.30	30.18	.12	58	N.E.	7.5	95	....	....	....	25
26	38.73	47.0	29.0	18.0	30.31	30.38	30.22	.16	55	E.	7.0	83	....	....	....	26
27	41.58	53.0	29.2	23.8	30.01	30.22	29.86	.36	69	S.	12.0	10	0.10	....	0.10	27
28	46.80	57.4	40.8	16.6	29.86	29.92	29.78	.14	73	S.	11.8	51	....	....	....	28
29	46.01	53.6	35.1	18.5	29.47	29.78	29.32	.46	96	E.	20.1	00	1.40	....	1.40	29
SUNDAY.....30	44.65	48.0	41.4	6.6	29.63	29.72	29.48	.24	81	W.	13.5	00	....	....	....	30.....SUNDAY
31	34.95	41.4	32.5	8.9	29.37	29.56	29.27	.29	92	N.E.	7.6	00	0.04	1.8	0.24	31
Means.....	40.71	40.48	27.65	12.83	29.935	30.098	29.798	.299	77.3	N. 24°20′ W.	15.01	33.6	5.50	9.4	6.61	.....Sums.
28 Years means for and including this month	24.91	31.76	17.29	14.49	29.970	.....	.....	.274	77.2	....	‡ 17.71	¶45.92	1.324	23.89	3.887	28 Years means for and including this month.

ANALYSIS OF WIND RECORD.

Direction.....	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	CALM.
Miles	1793	2546	519	1016	1012	813	2768	705	
Duration in hrs..	126	206	49	53	71	43	147	48	1
Mean velocity....	14.2	12.4	10.6	19.2	14.1	18.9	18.8	14.7	

Greatest mileage in one hour was 43 on the 3rd.
Greatest velocity in gusts was 46 on the 17th.

Resultant mileage, 1958.
Resultant direction, N. 24° 20′ W.
Total mileage, 11,172.

* Barometer readings reduced to sea-level and temperature 32° Fahrenheit.

† Mean of bi-hourly readings taken from self-recording instruments.

‡ Humidity relative, saturation being 100. Mean of observations at 8, 15 and 20 hours.

¶ 21 years only. ‡ 16 years only.

The greatest heat was 57.4° above zero on the 28th; the greatest cold was 10.0° above zero on the 8th; giving a range of temperature of 47.4°. Warmest day was the 28th. Coldest day was the 8th.

Highest barometer reading was 30.60 on the 8th; lowest barometer was 28.87 on the 2nd, giving a range of 1.73 inches.

Minimum relative humidity observed was 37 on the 26th.

Rain fell on 11 days.

Snow fell on 7 days.

Rain or snow fell on 16 days.

Fog on the 12th and 27th.

ABSTRACT FOR THE MONTH OF APRIL, 1902

Meteorological Observations, McGill College Observatory, Montreal, Canada. Height above sea level, 187 feet. C. H. McLEOD, *Superintendent.*

DAY	THERMOMETER. † Mean.	Max.	Min.	Range.	* BAROMETER. † Mean.	Max.	Min.	Range.	‡Mean relative humidity.	WIND. General direction.	Mean velocity in miles per hour	Per cent. possible Sunshine.	Rainfall in inches.	Snowfall in inches.	Rain and snow melted.	DAY.
1	34.8	37.7	32.7	5.0	29.21	29.25	29.19	.06	94	W.	12.5	00	0.21	2.0	0.41	1
2	38.0	44.7	33.8	10.9	29.32	29.54	29 19	.35	79	W.	22.3	00	0.16	....	0.16	2
3	37.2	42.8	31.1	11.7	29.80	30.01	29.54	.47	66	W.	17.7	62	....	....	....	3
4	37.0	43.0	31.0	12.0	30.02	30.08	29.99	.09	65	W.	7.6	04	....	....	....	4
5	39.4	46.7	29.9	16.8	29.95	30.00	29.89	.11	71	W.	4.8	75	....	....	....	5
SUNDAY..... 6	43.3	52.8	31.4	21.4												
7	45.1	56.8	32.9	23.9	29.89	29.94	29.83	.11	59	S.E.	6.9	83	....	....	....	6.....SUNDAY
8	47.1	58.0	37.8	20.2	29.99	30.12	29.86	.26	65	E.	7.9	85	....	....	....	7
9	41.5	43.0	36.2	6.8	30 11	30.19	30 03	.16	60	N.E.	18.1	05	....	....	....	8
10	36.4	39.0	33.7	5.3	29.84	29.96	29.76	.20	62	N.E.	36.0	00	0.04	....	0.04	9
11	38.5	43.2	33.5	9.7	29.80	29.83	29.79	.04	89	N.E.	21.7	00	0.01	....	0.01	10
12	38.7	42.7	33.1	9.6	29.81	29.84	29.77	.07	76	N.E.	8.9	00	0.01	...	0.01	11
SUNDAY.....13	41.4	47.0	36.0	11.0	29.67	29.77	29.62	.15	87	E.	4.7	00	r	1.4	0.14	12
14	37.4	47.0	32.0	15.0	29.66	29.81	29.59	.22	64	N.W.	17.4	05	0.26	....	0.26	13.....SUNDAY
15	46.2	57.8	35.9	21.9	29.98	30.06	29.81	.25	53	N. W.	17.1	31	....	....	....	14
16	47.9	56.8	35.7	21.1	30.04	30.10	29.97	.13	48	W.	23.0	80	....	....	....	15
17	48.3	55.0	41.5	13.5	30.01	30.08	29.97	.11	45	S.	10.0	88	....	....	....	16
18	47.2	54.6	40.7	13.9	29.89	29.95	29.85	.10	65	S.E.	7.6	00	r	....	0.00	17
19	48.1	60.0	36.0	24.0	29.96	29.99	29.91	.08	69	S.E.	5.8	51	r	....	0.00	18
SUNDAY.....20	48.5	55.0	43.7	11.3	29.93	29.98	29.89	.09	69	S.E.	10.7	12	....	....	....	19
21	44.0	49.6	39.3	10.3	29.90	29.93	29.88	.05	64	W.	16.8	50	0.18	....	0.18	20.....SUNDAY
22	42.3	50.0	38.5	11.5	30.00	30.06	29.98	.08	59	W.	13.2	11	0.04	....	0.04	21
23	50.3	72.0	37.3	34.7	29.83	29.98	29.78	.20	88	N. E.	15.0	25	0.11	....	0.11	22
24	41.4	46.5	36.4	10.1	29.71	29.80	29.59	.21	65	W.	24.6	34	r	....	0.00	23
25	44.4	53.6	34.0	19.6	30.02	30.19	29.80	.39	46	W.	24.2	23	r	s	0.00	24
26	47.3	54.0	43.5	10.5	30.19	30.26	30.07	.19	49	S.W.	13.8	00	....	....	....	25
SUNDAY.....27	46.4	50.7	41.8	8.9	29.63	30.07	29.38	.69	87	S.E.	20.3	00	0.80	....	0.80	26
28	55.0	65.0	42.0	23.0	29.64	29.90	29.44	.46	76	W.	25.6	00	0.03	....	0.03	27.....SUNDAY
29	61.7	75.2	46.6	28.6	30.05	30.13	29.90	.23	54	W.	17.8	95	....	....	....	28
30	56.9	64.5	52.2	12.3	30.09	30.18	29.96	.22	45	S.E.	10.8	91	0.05	....	0.05	29
					29.89	29.96	29.82	.14	80	S.W.	16.5	08	0.65	....	0.65	30
Means..... ..	44.38	52.16	37.01	15.15	29.856	29.97	29.77	.20	66.6	N. 71° W.	15.31	30.6	2.55	3.4	2.89	.....Sums.
28 Years means for and including this month	40.72	49.14	32.97	16.17	29.960	.....	.....	.20	66.8	....	‡16.38	¶50.5	1.74	5.1	2.26	28 Years means for and including this month.

ANALYSIS OF WIND RECORD.

Direction.....	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	CALM.
Miles	358	2334	383	1232	434	689	4526	1086	
Duration in hrs..	33	120	50	110	43	47	255	59	3
Mean velocity....	10.8	19.4	7.7	11.2	10.1	14.7	17.7	18.4	

Greatest mileage in one hour was 43 on the 23rd.
Greatest velocity in gusts was 48 on the 9th & 23rd.

Resultant mileage, 3,050.
Resultant direction, N. 71° W.
Total mileage, 11,040.

* Barometer readings reduced to sea-level and temperature 32° Fahrenheit.

† Mean of bi-hourly readings taken from self-recording instruments.

‡ Humidity relative, saturation being 100. Mean of observations at 8, 15 and 20 hours.

¶ 21 years only. ‡ 16 years only.

The greatest heat was 75.2° above zero on the 29th; the greatest cold was 29.9° above zero on the 5th; giving a range of temperature of 45.3°. Warmest day was the 29th. Coldest day was the 1st.

Highest barometer reading was 30.26 on the 25th; lowest barometer was 29.19 on the 1st and 2nd; giving a range of 1.07 inches.

Minimum relative humidity observed was 26 on the 29th.

Rain fell on 18 days.
Snow fell on 3 days.
Rain or snow fell on 18 days.
Lunar halo on the 18th.
Thunder and lightning on the 26th and 30th.

ABSTRACT FOR THE MONTH OF MAY, 1902.

Meteorological Observations, McGill College Observatory, Montreal, Canada. Height above sea level, 187 feet. C. H. McLEOD, *Superintendent.*

DAY	THERMOMETER. † Mean.	Max.	Min.	Range.	* BAROMETER. † Mean.	Max.	Min.	Range.	‡Mean relative humidity.	WIND. General direction.	Mean velocity in miles per hour	Per cent. possible Sunshine.	Rainfall in inches.	Snowfall in inches.	Rain and snow melted.	DAY.
1	51.7	57.8	47.0	10.8	30.08	30.19	29.94	.25	57	N.	15.7	25	0.02	....	0.02	1
2	50.9	58.4	40.3	18.1	30.12	30.21	29 99	.22	51	N.E.	11.5	72	....	....	....	2
3	52.0	56.0	48.0	8.0	30.03	30.16	29.95	.21	69	S.E.	11.5	00	....	....	....	3
SUNDAY..... 4	51.4	58.9	43.0	15.9	30.06	30.16	29.88	.28	83	S.E.	13.2	29	0.06	....	0.06	4.....SUNDAY
5	56.3	68.0	50.1	17.9	29.93	30.13	29.86	.27	64	N.W.	15.7	48	0.02	....	0.02	5
6	50.5	58.8	47.9	10.9	30.12	30.26	29.84	.42	51	E.	9.4	52	....	....	....	6
7	56.3	65.7	47.4	18.3	29.62	29.84	29.49	.35	72	W.	24.4	21	0.41	....	0.41	7
8	55.9	69.7	46.8	22.9	29.76	29.83	29.55	.28	56	W.	17.4	80	0.23	....	0.23	8
9	40.5	54.0	29.0	25.0	29.68	30.07	29.38	.69	76	W.	35.4	05	0.15	....	0.15	9
10	34.5	46.5	23.0	23.5	30.14	30.20	30.07	.13	57	N. W.	20.8	89	....	....	....	10
SUNDAY.....11	44.7	52.8	34.5	18.3	30.21	30.25	30.16	.09	52	N.	11.4	85	....	....	....	11.....SUNDAY
12	52.2	61.1	42.0	19.1	30.08	30.22	29.92	.30	50	W.	12.3	34	....	....	....	12
13	44.0	49.6	37.6	12.0	30.05	30.15	29.91	.24	47	N.E.	12.9	97	....	....	....	13
14	48.3	57.5	39.4	18.1	30.06	30.12	29.98	.14	52	N. W.	11.0	52	¶	....	¶	14
15	46.3	55.8	35.5	20.3	30.18	30.24	30.12	.12	60	N. W.	9.8	81	....	....	....	15
16	54.5	62.0	45.4	16.6	29.98	30.18	29.88	.24	57	W.	21.2	57	....	....	....	16
17	52.5	61.2	42.5	18.7	29.96	30.06	29.85	.21	47	S.W.	12.2	83	....	....	....	17
SUNDAY.....18	56.5	68.0	43.0	25.0	29.97	30.04	29.92	.12	51	N.E.	5.2	93	....	....	....	18.....SUNDAY
19	51.2	57.0	47.0	10.0	29.92	29.98	29.85	.13	83	N.	9.2	00	0.04	....	0.04	19
20	54.1	62.3	47.0	15.3	30.09	30.29	29.92	.37	47	N.E.	11.7	88	....	....	....	20
21	57.6	67.5	43.9	23.6	30.24	30.36	30.12	.24	44	N.W.	12.1	81	....	....	....	21
22	64.7	79.6	50.0	29.6	29.91	30.12	29.66	.46	62	N.W.	15.7	11	0.05	....	0.05	22
23	70.2	81.6	62.3	19.3	29.74	29.80	29.66	.14	78	N.W.	17.4	51	0.27	....	0.27	23
24	68.0	76.1	64.0	12.1	29.67	29.76	29.59	.17	92	W.	8.7	25	0.33	....	0.33	24
SUNDAY.....25	67.8	75.5	60.9	14.6	29.75	29.81	29.60	.21	72	N.E.	6.7	64	0.06	....	0.06	25.....SUNDAY
26	60.4	69.3	57.0	12.3	29.57	29.72	29.51	.21	89	N.W.	8.2	07	0.73	....	0.73	26
27	54.8	61.5	49.0	12.5	29.61	29.67	29.49	.18	91	W.	9.7	05	0.79	....	0.79	27
28	45.8	49.5	41.5	8.0	29.57	29.70	29.45	.25	85	N.W.	17.0	00	0.26	....	0.26	28
29	49.3	59.8	36.9	22.9	29.79	29.83	29.70	.13	56	N W.	17.7	67	¶	....	¶	29
30	52.0	62.5	44.8	17.7	29.99	30.33	29.74	.59	57	N.W.	11.1	92	0.38	....	0.38	30
31	52.5	63.5	36.9	26.6	30.42	30.51	30.33	.18	47	S.	1.2	97	....	....	....	31
Means.....	53.14	62.18	44.63	17.55	29.947	30.07	29.82	.25	62.7	N. 53° W.	13.46	51.1	3 80	....	3.80	.....Sums.
28 Years means for and including this month	54.66	63.94	45.81	18.13	29.929	.....	.....	.17	66.4	....	‡14.27	¶50.7	2.93	....	2.98	28 Years means for and including this month.

ANALYSIS OF WIND RECORD.

Direction.....	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	CALM.
Miles	888	1193	297	485	97	432	3177	3443	
Duration in hrs..	82	111	43	49	17	30	187	220	6
Mean velocity....	10.8	10.7	6.9	9.9	5.7	14.4	16.9	15.6	

Greatest mileage in one hour was 45 on the 9th.
Greatest velocity in gusts was 46 on the 9th.

Resultant mileage, 5,590.
Resultant direction, N. 53° W.

Total mileage, 10,012.

* Barometer readings reduced to sea-level and temperature 32° Fahrenheit.

† Mean of bi-hourly readings taken from self-recording instruments.

‡ Humidity relative, saturation being 100. Mean of observations at 8, 15 and 20 hours.

¶ 21 years only. ‡ 15 years only.

The greatest heat was 81.6 above zero on the 23rd: the greatest cold was 23.0 above zero on the 10th; giving a range of temperature of 58.6°.

Warmest day was the 23rd. Coldest day was the 10th.

Highest barometer reading was 30.51 on the 31st; lowest barometer was 29.38 on the 9th; giving a range of 1.13 inches.

Minimum relative humidity observed was 29 on the 20th.

Rain fell on 17 days.

Thunder and lightning on the 23rd.

ABSTRACT FOR THE MONTH OF JUNE, 1902.

Meteorological Observations, McGill College Observatory, Montreal, Canada. Height above sea level, 187 feet. C. H. McLEOD, *Superintendent.*

DAY	THERMOMETER. † Mean.	Max.	Min.	Range.	* BAROMETER. † Mean.	Max.	Min.	Range.	‡Mean relative humidity.	WIND. General direction.	Mean velocity in miles per hour.	Per cent. possible Sunshine.	Rainfall in inches.	Snowfall in inches.	Rain and snow melted.	DAY.
SUNDAY..... 1	65.1	78.5	47.5	31.0	30.28	30.39	30.15	.24	68	E.	2.8	75	0.01	....	0.01	1.....SUNDAY
2	69.4	80.0	64.0	16.0	29.97	30.15	29.80	.35	86	W.	11.9	27	0.04	....	0.04	2
3	65.3	76.1	50.1	26.0	29.71	29.80	29.62	.18	86	W.	10.8	19	1.02	....	1.02	3
4	53.2	58.8	46.3	12.5	29.80	29.97	29.64	.33	85	N.E.	7.1	00	0.70	....	0.70	4
5	56.9	66.2	47.0	19.2	30.11	30.17	29.97	.20	52	N.	6.2	98	....	....	....	5
6	59.0	69.9	46.0	23.9	30.13	30.25	29.97	.28	66	N.	2.6	39	....	....	....	6
7	61.4	65.0	57.1	7.9	29.68	29.97	29.55	.42	88	S.W.	4.0	00	0.32	....	0.32	7
SUNDAY..... 8	53.8	64.5	48.0	16.5	29.63	29.78	29.53	.25	81	N.	12.0	00	0.32	....	0.32	8.....SUNDAY
9	53.7	65.0	41.0	24.0	29.81	29.91	29.72	.19	64	N.W.	17.4	90	0.04	....	0.04	9
10	56.6	61.5	48.0	13.5	29.66	29.87	29.51	.36	76	N.W.	14.9	27	0.40	....	0.40	10
11	53.3	61.5	42.8	18.7	29.84	29.96	29.68	.28	64	E.	3.2	75	0.19	....	0.19	11
12	56.3	64.1	49.9	14.2	29.79	29.87	29.67	.20	78	N.E.	3.1	24	....	....	....	12
13	60.8	67.3	53.5	13.8	29.81	29.90	29.77	.13	84	W.	7.9	13	0.04	....	0.04	13
14	68.2	78.0	56.0	22.0	29.99	30.08	29.90	.18	61	E.	4.0	89	....	....	....	14
SUNDAY.....15	68.6	73.5	63.0	10.5	29.75	29.91	29.60	.31	84	S.E.	4.9	01	r	....	0.00	15.....SUNDAY
16	68.8	75.8	61.5	14.3	29.49	29.60	29.43	.17	86	N.W.	8.8	00	0.11	....	0.11	16
17	58.9	63.9	51.8	12.1	29.59	29.82	29.42	.40	67	N.W.	19.3	68	r	....	0.00	17
18	60.4	70.8	47.2	23.6	29.89	29.95	29.82	.13	61	N.W.	14.0	95	....	....	....	18
19	62.6	69.1	58.9	10.2	29.76	29.85	29.73	.12	76	W.	4.6	34	....	....	....	19
20	62.3	71.4	52.5	18.9	29.85	29.91	29.73	.18	66	N.W.	6.9	78	....	....	....	20
21	56.3	59.5	52.5	7.0	29.81	29.91	29.68	.23	90	N.E.	7.2	00	0.61	....	0.61	21
SUNDAY.....22	56.7	64.8	48.0	16.8	29.88	29.92	29.85	.07	65	S.W.	10.0	86	....	....	....	22.....SUNDAY
23	54.6	61.3	50.0	11.3	29.90	29.94	29.87	.07	83	W.	14.4	25	0.13	....	0.13	23
24	56.9	65.7	50.5	15.2	29.87	29.92	29.83	.09	85	W.	14.8	64	0.34	....	0.34	24
25	61.0	71.0	49.8	21.2	29.78	29.90	29.56	.34	71	W.	13.3	91	....	....	....	25
26	59.4	68.4	51.5	16.9	29.32	29.56	29.19	.37	80	W.	21.2	34	1.37	....	1.37	26
27	57.5	65.5	49.2	16.3	29.52	29.74	29.39	.35	77	W.	23.9	15	0.04	....	0.04	27
28	61.2	68.2	52.2	16.0	29.87	29.95	29.74	.21	66	N. W.	17.9	93	....	....	....	28
SUNDAY.....29	60.3	67.4	52.5	14.9	29.92	29.98	29.85	.13	72	N.	5.8	48	....	....	....	29.....SUNDAY
30	64.4	71.6	54.2	17.4	29.88	29.93	29.83	.10	72	W.	8.2	28	0.03	....	0.03	30
Means.....	60.11	68.14	51.41	16.73	29.810	29.93	29.70	.23	74.7	N. 58° W.	10.11	44.5	5.71	....	5.71	.....Sums.
28 Years means for and including this month	64.79	73.53	56.24	17.29	29.902	.....	.....	.156	70.4	....	12.93	54.5	3.61	....	3.61	28 Years means for and including this month.

ANALYSIS OF WIND RECORD.

Direction.....	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	CALM.
Miles	586	489	291	210	153	286	2431	2834	
Duration in hrs..	86	70	59	34	35	52	193	191	
Mean velocity....	6.7	7.0	4.9	6.2	4.4	5.5	12.6	14.8	

Greatest mileage in one hour was 30 on the 26th.
Greatest velocity in gusts was 30 on the 26th.

Resultant mileage, 4,560.
Resultant direction, N. 58° W.

Total mileage, 7,280.

* Barometer readings reduced to sea-level and temperature 32° Fahrenheit.

† Mean of bi-hourly readings taken from self-recording instruments.

‡ Humidity relative, saturation being 100. Mean of observations at 8, 15 and 20 hours.

¶ 21 years only. ? 15 years only.

The greatest heat was 80.0 above zero on the 2nd: the greatest cold was 41.0 above zero on the 9th; giving a range of temperature of 39.0°.

Warmest day was the 2nd. Coldest day was the 4th.

Highest barometer reading was 30.39 on the 1st; lowest barometer was 29.19 on the 26th; giving a range of 1.20 inches.

Minimum relative humidity observed was 43 on the 14th.

Rain fell on 19 days.

Rainbow on the 8th, 17th and 26th.

Thunder and lightning on the 24th.

Hail on the 24th.