

**CORRESPONDENCE.**

"Honest men tell us of our faults. Knaves will not; and fools see neither our faults nor our virtues".

BETHLEHEM CENTRE, N. Y., Oct 9, 1882.

Henry G. Vennor, Esq.,

DEAR SIR,—Allow me to congratulate you on your very accurate forecast of the weather for the months of August and September. You did not miss a single day in either of the two months above mentioned. I think you have found the right key for the weather in this locality, "be careful not to loose it."

Now, sir, I want to ask you a weather question. Is the vapour or moisture that is taken up from the earth, and which produces rain, taken up uniformly (both as to speed and quantity) at all times? If so, Why does it not rain more uniformly and periodically, "and if not why not?"

I will take the liberty of asking you another. What causes the light streak which issues from comets, and is commonly called the tail?

A SUBSCRIBER.

**October—The Second Week—The Comet's Progress.**

(To the Editor of the Bulletin.)

SIR,—In answer to your request of October 9, viz.: that I watch predictions for week ending Saturday 14 and send you my verdict on final result. I fear you ask a hard thing at my hands, how shall one man judge another's weather predictions, and not fail utterly? How, in fact shall I entertain your exact meaning, which I know from my own experience in prognosticating is so very hard to put into suitable words? Take as an instance the exclamation, "fine day." Now the day might not be very fine, only it would bear favorable comparison with its predecessors, which were very unpleasant indeed. Again, one farmer having finished his fall sowing, would call a small deluge "fine," but his next neighbor, not so far advanced in field operations would declare it to be "bestly weather" and very bad for getting on the land. This, by way of prelude, that your readers may not expect more than I can accomplish. Respecting my observations, they are of course local, and at same time general, I usually make three observations daily, at 6 a.m., 12 noon, and 7 p.m., which you find recorded parallel with your probabilities.

**SECOND WEEK, OCT. 8TH TO 14TH.**

PROBABILITIES.	RESULTS.
Will probably continue with severe wind storms and heavy rains east and west, marked storm period about 9th and 10th.	8 Sun. Fine warm day throughout, strong wind.
	9 Mon. Morning, fine, close. Noon, stiff breeze. Evening, increased to gale from W.
	10 Tue. Morning, cloudy, continuance of gale. Noon, fine, wind strong. Evening, fine, frosty, (Aurora.)
	11 Wed. Morning, fine, cloudy, cold. Noon, fine, cold wind, keen. Evening, Cloudy, cool.
Frosts may occur about the 12th.	12 Thurs. Morning, cool, cloudy. Noon, cloudy, dull, some wind. Evening, calmer, clouds continue.
End of week fine and calmer weather	13 Fri. Morning, warm for season, overcast, calm. Noon, dull, threatening rain. Evening, clouds, scattering, fine and warm 10 p.m., strong wind.
	14 Sat. Morning, warm, steady downpour of rain. Noon, clouds rising and dispersing. Evening, fine.

This needs but little comment, the wind calm but not perhaps as severe as the wording of the prediction required, but windy it was without doubt, end of week was fine, but no finer than the beginning, but certainly the weather was calmer.

Now for the failures—Non-appearance of the "heavy rains," and "frosts may occur about 12th," which was a day of change towards warmer weather, which continues until the present date. Weighing the matter impartially, it is impossible to proclaim the "hits" very startling, neither could I declare the failures remarkable. A few words more, is it not possible for all interested in Meteorology, and kindred subjects to work in harmony. Great discredit is brought on our fair science by unseemly wrangling in the public prints. Could not each transmit the other his opinions a month beforehand, and allowing for local differences, have a standard prediction signed by several well known names published in local journals. Let one and all declare against controversy, whenever possible, and all work for the advancement of science and the public good.

WALTER H. SMITH.

Montreal, Oct. 16, 1882.

**The Gatineau Valley Railway.**

**THE GATINEAU VALLEY AND JAMES' BAY.**

Concluded.

But Winnipeg exceeds the Fort only eight days. It is interesting to note that the celebrated grain district around Woodstock, Ontario, experienced a temperature lower than 32° on June 6th 1878 and June 7th 1879 or quite as late as the average date at Moose Factory. It will be noticed, too, that while owing to the neighborhood of melting ice and cold water at James' Bay, the last frost of spring is later than in Winnipeg or the Ottawa region, it is no later than in Muskoka, while the first black frost of Autumn on the cold, wet, clayey, soil of Moose Factory not till the end of September, nineteen days later than in Muskoka and eleven days later than at Winnipeg. The long frostless period at Pembroke compared with the shorter season farther south suggests that on warm soils inland from James' Bay the frost less season may be even longer than at Moose Factory.

When the lowest temperatures during the summer months are compared the result is equally favourable to James' Bay. Thus while the average lowest reached between the first of June and first of October at Moose Factory is only 29°.2, is less than three degrees below the freezing point, Beatrice, Muskoka, shows 28° in June and 26° in September. In July and August the average coldest is 40 degrees or quite as high as in many parts of Ontario, and higher than in most parts of the North-West. The absolutely lowest reached in the same months in three years was 27° at Moose Factory, while Truro, N. S., Muskoka, Prince Arthur's Landing, Port Calgary, Dunvegan, and Edmonton, all were decidedly lower. In Muskoka and at Edmonton black frost occurred in August, and at Fort Calgary every month during the season of 1880. Moose Fort had no frost any year before the middle of September. In the central countries of England last August 32°.5 was reached in districts where wheat is a staple crop, while in the north of Scotland hard frosts are sometimes known in midsummer, though oats and barley are grown extensively. The facts stated prove that for at least oats and barley the climate of even the northern part of the vast Moose River Basin is admirably suitable, and they indicate that even wheat cultivation may be found practicable on warmer soils inland.

Hot waves are as frequent and almost as intense as at Toronto. The average highest in May is 75° in July 88°, in October 74°. The average highest in Toronto in July is only 91° and in October is 68, or 5 degrees less than James' Bay. Evidently our supposed hyperboresans have occasion to know the value of ice cream.

If the cold waters of James' Bay retard the Moose Factory spring, they make compensation in autumn by protecting the coast from the cold northern blasts and by prolonging the genial fall weather. In fact the shores of the bay enjoy

**A Milder Autumn than Manitoba.**

or any part of the North West, excepting Fort McLeod. The first light hoar frost at Moose Factory occurs not till about the 5th of September, and the first genuine frost not till the end of the month, or quite as late as in most parts of Ontario. In October the days are genial, and occasionally decidedly warm, and the night frosts at the end of the month not so severe as at Winnipeg. The beginning of November is usually mild, but as the month wears on towards the middle, winter sets in with snows, sometimes heavy, and the thermometer dips towards zero. Before the month is over the river is generally frozen, and the winter, which is much brighter than in Toronto, fully sets in.

High temperatures in the fall months are not uncommon. The average maximum for October is higher than at Toronto, and in 1879 was actually up to 81°.8, or higher than has been known in a Toronto October in forty years.

The following table shows the mean temperature of Autumn:

	Sept	Oct	Nov
	deg	deg	deg
Moose Fort—3 years	58.9	41.3	21.5
Winnipeg—3 years	50.8	38.9	21.3
Battleford—2 years	46.9	32.2	19.8
Fort McLeod—3 years	54.6	40.9	27.2
Fort Calgary—1880	47.2	36.1	
Fort Edmonton—1880	43	41.3	29.5
Dunvegan	46.	39.3	19.0
Truro—3 years	59.1	41.7	31.1
Windsor—3 years	62.0	53.6	39.0

The figures presented furnish unequivocal testimony to the suitability of the climate of much of the James' Bay district for barley, oats, and various other staple crops.

If casual experiments at some points have failed, the cause may be found in ignorance or carelessness in conducting them. Of several hundred farmers at Edmonton, only a few took the precaution to sow their wheat early in the spring of 1881; these reaped good crops in good condition and comparatively early, although the summer was cold, wet and backward; the others; (not practical farmers) who allowed their opportunities to slip by unimproved had a late harvest and poor crops. Similar ignorance or neglect will produce similar results in all northern climates, where the season while amply repaying proper farming leaves little spare time in the warmer months to those who postpone plowing or sowing a fortnight or so later than it can first be done.

**GRAIN AND ALL THE VEGETABLES GROWN.**

The evidence of the agricultural capacity of the James' Bay country, derived from actual cultivation, is necessarily very meagre, but is on the whole encouraging. Wheat succeeds at Lake Temiscamingue, near the south-eastern borders. Prof. Bell, when three hundred miles north of Lake Nipissing, was surprised by finding a Scotch farmer settled there for several years, installed comfortably in the midst of a forty-acre, clearing, and cultivating oats, barley,