

METEOROLOGICAL OBSERVATIONS

BY

CAPTAIN CHARLES LEGER.

Observations on the changes of the weather, wind and level of the water, as noted by Chs. Léger at Lachine since the 16th of December, 1884, viz :

Dec. 16th.—All the rivers were open in the morning, the same night, very cold. Dec. 17, 18, 19 and 20, very cold, with northeast wind and snow.

Dec. 21.—All the rivers were frozen over and people were crossing the same on foot, excepting within three miles of the town of Lachine (to Isle Dorval), which is always open.

On the same day (the 21st) the wind changed to southwest and blew a gale all day and the ice on Lake St. Louis did not budge, the weather kept cold until the 27th ; from the 28th until January 13th the weather has been very mild, with a great deal of rain about every other day, with winds from the east and south the greatest part of the time, which caused the ice along the Lachine shore up to the Island Dorval to break close up to the beach, the frasil ice floated to the surface and moved down the river with the broken ice which caused the water to rise some in Montreal. If the piers were built at Lachine the river would all freeze over from the piers to Isle Dorval and would thus prevent the making of frasil ice, and would also keep the ice there instead of drifting down the river to Montreal and cause a jam and rise of water there.

Every year the ice takes by a cold north-east wind, from Beauharnois to Lachine, with the exception of the three miles above mentioned.

Before the year 1875 the four gates of the Lachine lock used to remain open from about the 15th June till the 15th September, with only about 6 inches of fall between Beauharnois and Côte St. Paul locks.

Since the building of the new canal dam, the water at the head of the pier is one foot higher than it was before. From what information I can gather from the inhabitants should the piers cause the water to rise during the winter season it would cause no inundation, even 4 feet, in the vicinity of Lachine.

Respectfully submitted by Chs. Léger,
Light pier keeper,
Lachine.

Lachine, 14th January, 1885.
To the Inundation Committee,
Montreal.

MONTREAL, May 18, 1885.

A. A. STEVENSON, Esq.,

Chairman Committee on Floods :

This is as near as I can remember the name of the committee.

A few days ago you were good enough to say you were willing to read a letter of mine in reference to our annual floods, and how to prevent, or, at least, mitigate them.

In pursuance of that desire, I beg to say that I have had a map of Montreal and vicinity before me for a year, and the more I look at it the more I feel satisfied that three things, if done, would greatly conduce to this desirable object in view.

First—Moffatt's island and the pier thence to St. Lambert shore, should be removed.

Second—The channel south of St. Helen's Island should be deepened. In this I find a correspondent of the *Gazette*, Mr. Sorby, agrees in a letter he wrote some days ago.

Third—Isle Ronde should be partly or entirely removed.

By these acts, I would expect to make a direct course for the ice on either side of St. Helen's Island, and thus relieve the pressure upon the wharves.

So much for the city itself. Now, with regard to Point St. Charles, or further up, the difficulty is not so easy to solve, because of the formation of Laprairie bay.

When the lake ice comes down, it naturally pushes towards Laprairie, where we find as it were a large mouth with closed teeth (the piers of Victoria bridge) holding it back just at the entrance to a comparatively narrow place, thus preventing the larger mass of ice, which is collected at breaking-up time, from freely passing down.

The Victoria bridge I hold to be in a bad spot for our bi-yearly welfare. However, there it is, and to stay, therefore we must fight around it for success.

Before closing I might venture a suggestion or two for what they are worth. That old pier which runs out into the river nearly parallel with Victoria bridge, ought to be removed or built over so as to point down the river, instead of nearly across, as at present.

And, finally taking a jump down to Pointe-aux-Trembles and the islands that crowd the channel on the south of Isle St. Therese, it occurs to me that the removal of some of them would make a clearer course for the moving ice, and thus greatly conduce to the end in view.

I don't indulge the idea that I have made any discoveries that are new, and fear that some of my suggestions, if deemed good, would involve too serious an outlay for our purse, but I venture to express my views to

show you
the high
committee

Sir,—
with a r
the prob
suburbs
mit, from

We ha
the inst
although
as appoint
nor-Gene
together
plan wer
their last
was no d
ciples on
foundel,
be convin
the mem
end in vic
I have th

Your n

T. W. C.

On the c
of part
Griffint
possibil
of obvie

In purs
cellency
in the ci
January
dations in
the comm
have the
inquiries
sections a
probable
this calan

The au
several pr

1. The
the end