

becomes frozen,
 trench, and retain
 By this means
 the water channel
 has risen until
 light to break the

y. I have one
 these floods, that
 keep its bounds
 y comparatively

advised building
 it is the ice from
 causes the trouble.
 ter, by the fall
 as thick as that,
 other gentlemen
 als, Isle Ronde,
 one what depth
 the ship's chan-
 u remove these
 ht of the water
 ill at the same
 ater in the ship's
 llows. But the
 removing St.
 s devise means
 of navigation.

er will have to
 et tunnel. A
 e to run parallel
 side therevet-
 s drain Griffin-
 cc., in fact all
 the St. Lawrence,
 at the lower end
 tunnel and the
 w the ice barrier
 as been proved
 gh a few miles
 es emptied there
 flood waters to
 or even cellar.
 ould have to be
 ays) and raised
 foot path might
 re feet wide and
 that people will
 g over it. The
 om Bonsecours
 up the bank of
 ove the bridge
 t, the earth for
 hton tramways
 also partly from

stead of keeping
 rse, employing
 , though com-
 n trinkets, &c.,
 of the city, they
 ing such works
 or an immense
 r who are now

flooded out, and cost, as I said before, com-
 paratively nothing.

In foreign countries work of this kind is
 done by prisoners. In France, I have read,
 the cornice road from Marseilles to Genoa,
 some 160 miles, built through rock the
 greatest part of the way, was done almost
 entirely by prisoners from Toulon, under the
 first Napoleon. In England I have myself
 many times seen a gang of prisoners at work
 building the Weymouth breakwater. It is
 an immense structure, about five miles long,
 and would cost many millions of pounds, but
 for utilizing that which is in Montreal a
 "latent power."

Yours truly,

F. J. GILMAN.

146 ST. JAMES STREET,

Montreal, 19th January.

SIR:—At the request of Mr. George
 Drummond, I beg to lay before you some
 points in connection with my scheme for
 relieving the city from floods, which was
 published in the *Star* last week. These
 points are as follows:—

Firstly—The still water harbor mentioned
 as being possible after our drains had been
 all diverted into the Craig-street tunnel, was
 only referred to as an improvement which
 might be carried out;—it forms no part of the
 project for avoiding the floods.

Secondly—The extension of the Craig
 street tunnel down to the Ruissseau Migeon
 is in any case very desirable, for during very
 high water the drainage has no proper out-
 let, but keeps floating about under the city
 with the rise and fall of the water, gradually
 mixing with the water in the river, and not
 only generating gases which must be very
 injurious to the health of the city, but also
 depositing large quantities of solid matter in
 the drains.

Thirdly—If the drainage of St. Gabriel was
 all brought under the canal to join the ex-
 tension of Craig street tunnel, a splendid
 opportunity would be afforded of flushing
 the tunnel with water from the canal.

Fourthly—The extension of the Craig
 street tunnel will be required at no very dis-
 tant date in any case.

Fifthly—After diverting the drains from
 the harbor, we should have no more com-
 plaints about the polluted water along the
 river front.

Sixthly—From remarks I have heard, I
 would wish to explain how I propose to deal
 with the drainage during floods. I propose,
 when necessary, to shut off the connec-
 tion between the main drain and the river
 at the Ruissseau Migeon, and either pump it

over the sluices into the river through a long
 pipe supported by stays, or through a pipe
 carried along the bed of the river to some
 point out of the way of navigation, and pro-
 tected at its extremity with a crib-work; or
 else let the drainage flow into a reservoir
 during the floods, and let it flow out when
 the water falls sufficiently; on these last
 points I have no data which would enable
 me to form an opinion as to which would be
 the best method.

Seventhly—The cost of the scheme I pro-
 pose can be definitely ascertained, and its
 success is certain; whereas, in dealing with
 the river, unless St. Helen's island be re-
 moved, which is quite out of the question,
 no one can tell what the success would be;
 under certain conditions a flood could be
 avoided, but under others the water is cer-
 tain to rise.

Eighthly—To raise the level of the streets
 would only give a small measure of relief, as
 the cellars and yards would still have to be
 filled and the houses raised—it being re-
 membered that cellars are very necessary to
 store provisions in.

Ninthly—Since writing to Mr. Drummond,
 I have seen the report of the Royal Engi-
 neers on the question at issue, and, taking
 into consideration the changes in the city,
 their proposal seems almost the same as
 mine.

Tenthly—The scheme I propose would
 not only relieve the city from floods, but
 also give us a perfect system of drainage.

Finally—I wrote the letter published in
 the *Star* simply as a citizen who has an
 interest in the welfare of Montreal.

I have not, as has been estimated, any
 "axe to grind" in the matter, as I have not
 yet found surveying in Montreal sufficiently
 profitable to be able to invest in flooded
 cellars on St. Paul street, nor do I expect to
 derive any professional benefit from my
 scheme, as the works, if carried out, would
 be under control of the City Surveyor; and,
 in fact, any investigation into the condition
 of the river would be more likely to be pro-
 fitable, as Mr. Rielle might be called on to
 furnish a copy of the large plan which he
 has of the river St. Lawrence on a scale of
 200 feet to the inch, and which comprises
 that part of the river lying between Lachine
 and the Boucherville islands, shewing the
 contours of the ground, the level of the
 water at various points, and well established
 bench marks along each side.

Your obedient servant,

H. IRWIN.

Alderman Stevenson,
 Chairman of the Inundation Committee.