

either precipitated to the bottom or evaporated from the surface of these quiescent lakes, and produces the beautiful, clear and pure water of the St. Lawrence.

The new works which have been above recommended will require several years for their construction, and in the meantime the necessities of the city require a temporary increased supply.

On the 24th of August last I addressed to you a letter, part of which I transcribe herein, with a renewed recommendation of the necessity of an additional steam pumping engine.

Extract from a communication made to the Water Committee August 24th, 1869.

"It thus become obvious to me that if you should adopt any of the plans which have been offered for furnishing power by water, that their execution will require several years, and, meanwhile, you will be subject to the inconveniences and expense which you have already experienced before resort was had to steam-power."

"As a *merely temporary measure*, therefore, I am of the opinion that it is necessary that you should at once provide additional steam-power, at least equal to that now furnished. \* \* \* In making this recommendation, I do not wish to be understood as approving of steam-power instead of water-power for your permanent works."

On further consideration of the subject, I believe that a non-condensing steam engine will answer the purposes now desired. The expense of such an engine will not be one-third of that of a condensing engine of the same power.

It is true that the cost of performing the same work will be considerably greater by a non-condensing engine, but it will not probably be required to be used for more than one, or at most, two months in any year during the construction of the new works, after which it will only be required on rare occasions.

Therefore the interest on the difference of cost between it and a condensing engine, will, probably, be sufficient to pay for the increased amount of fuel which the non-condensing engine will consume.