

cost of the two schemes, one being a large open canal, the other a subterranean aqueduct of at least equal capacity. It is chiefly owing to the two following reasons: First, the subterranean aqueduct need not, as in the case of the open canal, be made fully double *the size actually necessary for the passage of the water* in order to provide room enough for accumulations of ice and snow in winter; and secondly, by giving it a good fall as previously explained, we are enabled still further to reduce the dimensions without in the least curtailing its efficiency.

Subjoined will be found—1st. A plan showing the proposed location of conduit. 2. Cross sections of same, showing dimensions and mode of construction; first (at about station 10) in a deep cutting where no solid rock is found, and secondly (about station 100) where such rock may be found sufficiently solid and durable, to be made use of, in its natural formation as bottom and side walls of conduit. 3rd. A general specification describing the style of work we propose. 4th; A calculation of efficiency showing the data we base our figures on, and the process by which we arrived at the conclusion that the works we proposed if honestly carried out, have a capacity or power (at the lowest known water level in the St. Lawrence) sufficient to furnish and pump fully 15,000,000 gallons of water per day to the McTavish Street Reservoir.

In proposing this plan for the improvement of the Water Works of this city, we are desirous of submitting it to the fullest enquiry and scrutiny, and the higher the professional standing of the engineers to whom the Water Committee we may refer the matter, the better we will be pleased, as we are convinced that, however we may differ as to the details, there will be only one opinion on the chief point, viz., that a subterranean aqueduct is in every way far preferable to an open channel for the conveyance of water for domestic and city purposes, more especially in a severe climate. We may add our own firm convictions that, sooner or latter, it *will* be adopted as the cheapest and most reliable way of supplying water to the city of Montreal.

We remain, gentlemen, your obedient servants,

(Signed,)

R. P. COOKE,
E. W. PLUNKETT,
Civil Engineers.