## REPORT.

TORONTO, 9th June, 1869.

JOHN McGAUVRAN, Esq., Chairman Water Committee, City Council, Montreal.

SIR,—In compliance with a Resolution of your Committee, dated Montreal, 11th May, 1869, requesting me to prepare plans and specifications for a Steam Pumping Engine in accordance with the general plan of the Hamilton Engine, with any modifications or improvements which may be found expedient, the pumping capacity of the engine to be from three to four million gallons per diem,—

After a personal inspection of the Pumping Engines in the cities of Hamilton, Chicago, Buffalo and Detroit, particulars of which are herewith appended, I beg leave to submit the accompanying plans and specifications, in which the general features and outline of the Montreal Engine have been followed, doing away, however, with the low pressure system, using instead cylinders of equal power at each end of the beam.

The general plan of the Hamilton Engine could not be carried out, for want of room in the present Engine-house building. Were it desirable to do so, the enormous consumption of fuel would not justify its adoption under any circumstances by your Committee.

It is proposed to alter the boilers of the Hamilton Engines, substituting Tubular Boilers, similar to those used in the Montreal Engine, for the Cornish Boilers now used, by which some saving in fuel will be effected, but not to the extent, I think, apprehended.

The adoption of the plans herewith submitted would make the two Steam Engines in all respects, except the low pressure