

## DESCRIPTION OF THE PLAN.

It is proposed to take water out of the River St. Lawrence at a point about one mile above the head of the Lachine Rapids. The river here flows deep and strong within a few yards of the shore, and ranges but little between its extreme high and low water marks. At the point where the Aqueduct would commence the level of the river is thirty-seven feet above the summer level of Montreal Harbor.

The water is to be conducted in an open channel, four and three quarter miles in length, to the Lachine Canal at Gregory's. Here the wheels and pumps would be placed,—the waste water being discharged into the St. Pierre River, which has a fall of about 12 feet between this point and the St. Lawrence,—but being narrow and crooked, some clearing out and enlargement of its channel will be required. On account of the winter elevation of the St. Lawrence, it is proposed to keep the "tail race" from the water wheels, at least twenty feet above low water level of Montreal Harbor; this will leave a head and fall of at least sixteen feet at the pumps,—about one foot of fall being assigned to create a proper current in the Aqueduct. *4 3/4 miles to the Lachine Canal*

From the Pumps at Gregory's, the water is to be forced through an iron main, 30 inches in diameter, laid under the Canal, turnpike, railway, and all the public streets, into a reservoir, at about the elevation of the residence of the Hon. Mr. Justice Smith, being about two hundred feet above the level of Montreal Harbor. *16 ft. head*

Having presented the general features of the plan, I proceed more particularly to the different heads.

**THE AQUEDUCT.**—The dimensions proposed for the channel to conduct the water from the St. Lawrence