from the cables 57,960 tons net weight. See Appendix D.

The towers above the base will contain 108,687 tons net weight of material, and consequently there will be transmitted to the lower section above the base the weight of the towers and pressure from the cables.

The bases will contain 5120 square feet of section, there will therefore be about 1/5 of a ton net pressure on every square inch of that part of the tower where all the direct pressure will come.

It is proposed to build the towers of the most suitable stone selected from the quaries near Victoria Cove or farther up the river. The stone is compact lime, hard and durable, it may be seen in many of the most elegant buildings of Quebec and vicinity. Heavy iron bars and castings are to be worked into the towers for additional security, and the entire work is to be laid in hydraulic ciment of the most approved mark.

The courses are to be well bounded and the joints to be worked true.

The architectural effect is partially shewn in the accompanying drawings.

According to the most reliable published accounts stones of the formation proposed to be used, well selected, will sustain by experiments made by Rennie, Daniell, Wheatstone and others, a force equal to about three tons net per square inch section before crushing.

It will therefore be seen there is sectional surface equal to fifteen times that which would be crushed by the greatest weight which could ever come upon them. Appendix.

The towers as designed are proportioned, as to strength and the weight they have to carry, about the same as an average obtained from the dome of Saint-Peter's, at Rome, Saint-Paul's, London, and the Church Toussaint, Angers, (a) in

(a) Mahan's Civil Engineering.