point of suspension and the line of the roadway being the point of compression; the neutrial axis, will be on the face of the tower, now the forces which will operate here do not need any formular to make them perfectly plain.

If the chains were parted at the middle the crushing force upon the ends of the roadway would at once be in proportion to the angle of direction of the chains, and the load, either of the bridge itself or any weight upon it.

In any of these bridges which I have yet seen the designs for, the end of the roadway is not so proportioned as to receive this strain without flexure and crushing, and if this takes place by the mechanical distribution of the suspending rods it must prove an injury. Besides if the combinations in the flooring &c., were so made as to resist permanently these strains, there would be greater weight suspended and more material employed than in the ordinary suspension bridge of the same effective strength.

I am therefore constrained to the same opinion as the editor of the *Mechanic's Magazine*, (Vol. 3, page 407), "that the obliquity of the suspending rods is positively injurious."

SOCIAL INTERESTS, ETC.

A very large portion of the mechanical work of the bridge can be done within the city by its own inhabitants.

I have taken particular pains to ascertain the condition of the foundaries, machine shops, quarries, &c., &c.

All the castings both heavy and light can be made at Quebec.

It may cost a trifle more to do so, but the tax payers (if the bridge is built as here suggested), will have the advantage of reimbursements, in their own line of business. The masonry and woodwork, and in fact every thing used in the construction of the bridge, may be either the direct product or the legitimate merchandize of the city.