

level would be the height of folly, as the high centre of gravity would destroy all stability. The relative grades of railroad and common road were also such as to enforce the use of the upper floor by the railroad.

A third advantage of the design consists in this: that cables of the same span but different deflections oscillate in different times, and with different wave lengths; hence, when a pair of such cables are attached to a structure, the oscillations caused in one by a load or the wind, tend constantly to neutralize those caused in the other, and to produce a state of rest. In conclusion, I quite agree with Mr. Wasell that "the suppression of facts so intelligible, and of such vital importance to the travelling public would [indeed] be criminal"; but the facts, on examination, have dwindled to such diminutive proportions that, in my judgment, and I trust that of the public, they do not yet justify the building of Mr. Wasell's "Improved Trussed Girder Bridge," either at the Falls or any other point on the Niagara River.

W. A. ROEBLING.

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