

lake craft navigating between this and Chicago, and occasionally to Montreal.

Our hermaphrodite brigs' (so called) extreme length of foremast is about one hundred and sixteen feet from water line to truck. Length of foremast, from kilson to cap, 58 feet; topmast, from heel to cap, 38 feet; top gallant mast, 21 feet; royal mast, 13 feet; mast head, 6 feet. Deduct for spar from kilson to water line and for mast heads in the doublings leaves the above height. The spars of this class of vessels could be struck to the lower mast head with the same facility as sea-going vessels of same size and rig; they are fitted in the same manner. Our largest fore and aft schooners' main masts are about 90 feet from heel to cap, and top mast 45 feet; deduct four feet from step to water line, and eleven feet for mast head, would leave extreme length of spar from water one hundred and twenty feet. The top mast of this class of vessels could, with little time or trouble, be struck to pass under a bridge if required which would reduce the spars to *eighty six-feet* length.

The highest chimney on any steamer navigating Lake Ontario, including hull of boat, is sixty-four feet from water line to top. This last is the steamer Ontario.

The above dimensions are taken from drafts of our largest lake craft, and I trust will be satisfactory.

Respectfully yours,

WM. MORGAN,

Marine Inspector

for North Western Insurance Co."

To shew the impracticability of accommodating the navigation by means of a "draw-bridge," I would state that the Supreme Court of the United States have decided in the Wheeling Bridge case, that for the current of the Ohio (which is less than that of the St. Lawrence opposite Montreal) a "draw" of *two hundred feet* in width is the least which can be accepted.

Even if it were practicable to meet the requirements of the navigation by a "draw-bridge," it is questionable whether the "high level" bridge would not be preferable. The highest known ice floods have risen to a point 25 feet above extreme low water mark. It would not be prudent to place the superstructure of a bridge