ner, that when the two $\frac{5}{8}$ bolts that pass through them were screwed up, it held them firmly together. There is also a bolt passing through both truss-frames and through the heels of the lateral bracing, at right angles with the bridge, which secured the heels of the lateral braces, and by means of a socket in the centre made a lateral tie to the bridge, giving the bridge its lateral stability. The lower chords were of hammered iron, there being some difficulty at that time to get rolled iron of the proper size, and are in one entire piece, being welded together from bars 12 feet long. There are eight of them 5 × $\frac{3}{4}$ inches, one on either side of each piece of boiler iron, and fastened to it with $\frac{3}{4}$ inch iron rivets 6 inches distant from each other. There are but four top chords, and of the same size of the bottom, two on each truss near the top, the timber for the rail making up the deficiency for compression, and answering the purpose of chords. This bridge was built at the time Messrs. Stephenson and Brunell were making their experiments with cylindrical tubes preparatory to constructing the Menai bridge; the cylindrical tubes failing, they adopted this plan of bridge. The entire weight of the bridge is 14 gross tons, and cost $2,200; but as the same kind of iron of which the bridge is composed can be had for at least 15 per cent. less now, than it cost at that time, it would be but fair to estimate the cost of the bridge at $1,870, without any reference to the labor that is misapplied in all new structures of the kind, making the cost of a bridge 55 feet long $34 per foot. And I have no doubt, where there would be a large quantity of iron required for such purposes, that it could be had at such prices as to bring down the cost of bridges of 55 feet length to $30 per foot.

Very respectfully yours,

JAMES MILLHOLLAND