

The draw span was raised on false-works extending from the pivot pier to the upper and lower rests. As the small amount of sand above the rock precluded the driving of piles, these works were built on cribs, two of which, loaded with stone, were placed between the pier and each rest. These cribs were originally intended to serve as the foundation of a permanent draw protection; they were built in the winter of 1868-9; were made thirty feet square, and divided by four cross-walls into nine compartments. The deadening effect of the upper rest and pier on the current, had so checked the scour that the cribs did not settle to the rock, and as their bearing was not thought to be firm enough to carry a permanent structure, they were built up above ordinary high-water, and a wooden truss, strong enough to sustain itself if the cribs settled, and which should serve as false-works for raising the draw, was built upon them.*

As soon as Pier No. 2 had been completed, the pivot was placed upon it, and the turn-table put together; the chords were then spread out and riveted, and the bridge trusses made self-sustaining at the earliest possible moment, the whole structure being raised in about six weeks. The cribs settled slightly under the weight of iron, but not enough to give trouble, the subsidence being remedied by additional blocking. Since then the upper cribs have not settled materially, and are probably on their permanent bearing; but the night after the weight of the truss had been taken off the false-works, a rise in the river scoured around the two lower cribs, causing them to settle away from the truss; under the continued scour of the summer flood they continued to settle, tilting from side to side, and finally, when the flood was at its height, they tipped over and rolled away; the false-work truss remains standing, and no harm was done to the works.

On the occasion of the public opening on the 3d of July, the bridge was tested in the presence of a number of engineers invited to examine it, with the following results:—

176 FOOT SPAN.

Load at North quarter of Span.....	46 Tons.
North quarter Deflection	$\frac{1}{3}\frac{1}{2}$ Inch.
Centre "	$\frac{1}{3}\frac{0}{2}$ "
Load at Centre and North quarter	92 Tons.

* The temporary Draw Protection is shown on Plate VII.