

Before commencing the iron work of the several trusses, a series of blocks were laid across longitudinal timbers placed under the position to be occupied by each girder, for the purpose of supporting it during construction.

These blocks were of the proper height to give the required camber to the girders, and were placed under each post. Upon these were first placed the plates of the lower chord, which were then riveted together in their proper places. Next, the posts were placed in position and riveted to the plates of the lower chord. The top chord was then put on, first the side plates and angle irons, then the horizontal plates and covers.

Besides this general arrangement of the order of work, it was necessary, in many cases, to do that part first which was the most difficult to get at, on account of the interference of the timbers of the old bridge.

The several parts were first put together with as many bolts as were necessary to hold them in their proper position while they were being riveted. Where the holes for the rivets did not exactly come opposite each other, they were reamed out until the opposite holes corresponded. Most of them, however, fitted remarkably well for punched plates; for however well the work may be laid out and the points for the rivets marked, the plates will draw in punching and be more or less irregular when finished.

There are, in all, about 175,000 rivets in the whole bridge. About half of these were put in before the iron was shipped from England. The rest were put in here.

The riveting was done mostly by gangs of three men and two boys, with sometimes an additional man to ream out the holes. The boys heated the rivets and kept the riveters supplied. The rivet was placed in the hole red hot, and firmly held up with a heavy sledge by one of the men while the other two headed it on the other side. Before cooling, the head of the rivet was finished with a tool called a 'snap,' which is a short piece of steel with a cup-shaped end. This is held by one of the men, by means of a withe, upon the head of the rivet while the other strikes a few heavy blows with the hammer, giving the rivet a smooth round head, and setting it firmly down upon the iron. In cooling, the rivet contracts a little, binding the plates firmly together.

It is a long and tedious process to drive so many rivets by hand.