



## Historic Bridge Foundation Facebook Archives

Did You Know... One of the most unusual and significant truss bridges in the USA has two trusses in one?

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*(Editor's Note: After this article was written a 3<sup>rd</sup> party owner chose to take ownership of the bridge and had it dismantled and put into storage for reuse in a new location. As of August 2016 the bridge remains in storage with an uncertain future reuse)*

The Mead Avenue Bridge crosses the French Creek in Meadville, Pennsylvania and is slated to be demolished in the spring of 2015.

This bridge is essentially two bridges in one. The original bridge is a two span cast and wrought iron pin-connected Whipple through truss with a rare vertical end post design, and was built from 1871-1872. In 1912, rivet-connected Baltimore trusses were added to the original trusses, framing themselves around the original trusses. The double truss design is certainly an unusual historical modification of this bridge. However, the Whipple truss spans even by themselves can be considered one of the most unique and significant historic bridges in Pennsylvania. The bridge is among the oldest metal bridges in the Commonwealth, and it is one of the only bridges to use the patented Keystone columns (found in the vertical members and end posts of this bridge). It has extensive cast iron ornamentation on its portals (including a unique decorative mini-portal for the sidewalk). Its design includes unusual connection details associated with the period of experimentation found in the earlier years of metal bridge construction in the United States.

The Mead Avenue Bridge is one of the most important surviving monuments to Pittsburgh's bridge building past as well as an important part of its vast iron and steel heritage. It appears that it may be the oldest Pittsburgh-manufactured highway truss bridge in the entire country (based on online documentation). The Whipple truss bridge was built by the Penn Bridge Works of Beaver Falls, Pennsylvania. Pittsburgh's Union Iron Mills (an early venture of Andrew Carnegie) was where the iron was manufactured, according to marks on the bridge.

Very few bridges of this age and with such unusual design details survive today. Many of those that do have been rehabilitated and preserved. With this bridge however, the plan is to demolish the bridge in

the Spring of 2015 and replace it with a new bridge. The decorative elements of the bridge will be cut up and arranged around a sign describing the historic bridge, which will be installed next to the replacement bridge.



Ornamental portal bracing detail for the Whipple truss. The portal bracing is cast iron.



A Keystone Column on the bridge's Whipple truss with a brand indicating that it was rolled by the Union Iron Mills of Pittsburgh





View of the truss webs.



Portal view of the bridge. Note the decorative sidewalk portal to the right.





Top chord connections. The Baltimore truss connection is shown to the left and the Whipple top chord connection is shown to the right.