

Excerpt from ASCE Mohawk-Hudson Section, Newsletter
March 9, 2017

The Shaw Bridge
Claverack, New York
Crossing the Claverack Creek

Many members of the Mohawk-Hudson Section of the ASCE know of Squire Whipple, the father of the iron truss bridge and that he spent much of his life living and working in Albany, New York. Others know him as the first member of the Society to be named an Honorary Member of ASCE after its resuscitation in 1867. Union College graduates know he was a graduate of Union in the Class of 1830. Others know of him as the first engineer to correctly analyze a truss and that he published his findings and recommended truss types in his 1847 book entitled *A Work on Bridge Building* consisting of two Essays, One Elementary and General, the other giving Original and Practical Details for Iron and Wooden Bridges.

His patented Bowstring truss using cast and wrought iron (1841) was adopted by the Erie Canal Commissioners as the standard iron bridge to cross the enlarged Erie Canal and hundreds were built in the last half of the 19th century. In addition, Whipple and others using his patent built many over the rivers and streams throughout the northeastern United States. When the Erie Canal closed after the opening of the New York State Barge Canal, many of these bridges were removed and rebuilt at other locations.

The Mohawk-Hudson Section is fortunate to have several of these rebuilt bridges within its limits. The Union College Whipple crosses the Brook That Bounds on the campus. It was moved from Johnstown and erected on the campus in 1980-81. It is a National Historic Civil Engineering Landmark. The Vischer's Ferry Whipple was moved from Fonda and erected over the enlarged Erie Canal in Clifton Park. It is a New York State Historic Civil Engineering Landmark and was opened in 1998. A bridge at Central Park in Schenectady was built of Whipple parts and was originally located at Parish, New York. While not in our Section a Whipple Bridge originally built at Talcottville, New York was moved and erected over the Black River Canal outside of Boonville, New York. Another across the Normanskill in Albany has also been restored.



Photo by Historic American Engineering Record 1994 while still in use.

The Shaw Bridge is unlike any of these bridges for two reasons. First it is still in its original location and secondly it is a double span bridge. It was built by John Hutchinson & Sons of Troy, New York to carry VanWyck Lane across the Claverack Creek in 1870. It was placed on the National Register of Historic Places on April 17, 1980. It consists of two 80 ft. spans with a 10.5 ft. wide wooden deck. The bridge has been closed for many years. The writer and Ryan, Biggs Associates recently made studies of the existing conditions and recommendations for restoration. Since that time a committee of citizens lead by Ian Nitschke has been applying to various sources for funding to restore the bridge as a pedestrian bridge creating a small park in the area. The committee was recently notified that it has been awarded a grant in the amount of \$170,000 to restore the bridge. The committee and Town have to match that amount in contributed labor, materials or equipment or other contributed services. The writer has been asked to oversee the restoration and is seeking volunteers to assist in the restoration of the two spans.

ASCE urges section members to engage in activities of a community service nature. In giving back to the community by its members the status of the profession is enhanced in the public eye. Many of the bridges I have restored have been done with students, practicing civil engineers, suppliers, etc. and I like to think they all feel a sense of accomplishment in having worked on restoring a piece of civil engineering history.

The members of the Mohawk-Hudson Section now have another chance to work on a project of historic significance in restoring the Shaw Bridge. We are still working out the details but some of the types of work to be done are as follows:

- Pressure wash the dry laid stone abutments and pier.
- Point up the stone work.
- Remove the old decking.
- Check on condition of wooden stringers and if bad remove them.
- Clear concrete, etc. from around the ends of the cast iron arches.
- Paint cross beams, junction blocks, etc. (After sand blasting by others)
- Repairs to truss elements will generally be done by others.
- Replace stringers if necessary.
- Place new decking.
- Place railings (type still be considered)

If you will be willing to assist me in this important work please email or telephone me of your support at fgriggsjr@verizon.net or 518-810-2957. Generally the volunteer work will be done on Saturdays. I will forward to all volunteers a tentative schedule (when available) of when we will be working on various aspects of the project that can be done with volunteers. The schedule is subject to change as we coordinate the work to be done by contractors with the work to be done by volunteers.

TOGETHER WE CAN GET IT DONE!!!!!!

Please Volunteer.

Dr. Francis E. Griggs, Jr., Dist. M. ASCE



Recent Photograph of abandoned in place bridge.