



## **Historic Bridge Foundation Facebook Archives**

**Did You Know... There is only one known surviving Page bascule in the United States, following the recent illegal scrapping of the Page bascule in Hammond, Indiana?**

**February 2015**

The first of its kind ever built, the Chicago and Alton Railroad Bridge is a through truss Page bascule bridge, built in 1906 to cross South Fork South Branch Chicago River, which was also nicknamed Bubbly Creek because of the decomposition of all the wastes dumped into the river by the Chicago meatpacking industry.

John W. Page patented the Page type bascule bridge in 1903. A number of different bascule designs were patented and promoted by engineers in the late 1800s and early 1900s. The Page bascule never gained popularity, however, and very few were ever built.

Visually, the most distinctive feature of the Chicago and Alton Page Bascule is the curved guide rack, with its unusual wavy design. The design was intended to keep all movable parts of the bridge in balance during all positions of the bridge, so that, in theory, the only power needed to operate the bridge would be the power required to start the bridge moving, and power to deal with resistance from wind and friction.

The bridge no longer operates for boats, and most of its operating machinery has been removed. However, the distinctive guide rack and counterweight remain in place to convey the Page bascule design. The bridge has been designated a Chicago Landmark by the Commission on Chicago Landmarks.

The only other known surviving Page bascule bridge was in Hammond, Lake County, Indiana. Abandoned for many years, it was built ca. 1909 by the Chicago, Indianapolis, and Louisville and crossed the Grand Calumet River west of Hohman Avenue. In late January 2015, police discovered a man illegally directing the demolition of this bridge without permission, permits, or authorization of any kind. He claimed that the bridge was abandoned and it was thus legal for him to demolish the bridge. Nothing could be further from the truth: even abandoned bridges are still owned by an entity that must give permission for anything to be done with them. Additionally, numerous permits are often required, and, in some, cases

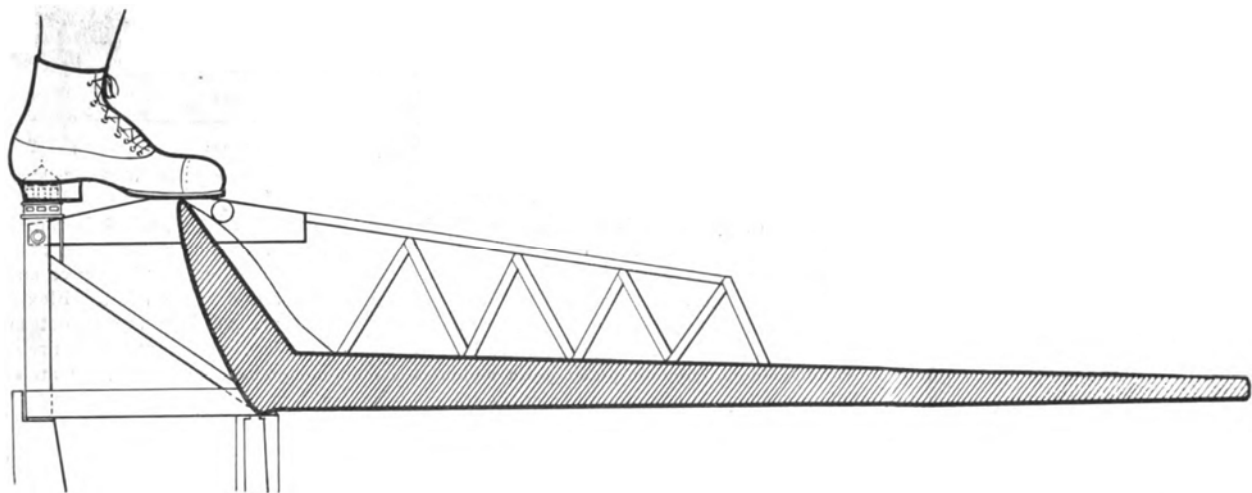
may even require a Section 106 Review if the bridge is eligible for listing in the National Register of Historic Places and a federal agency has to issue a permit, such as the Army Corps of Engineers.



The Chicago and Alton Railroad Bridge as seen today from the CTA Orange Line Station, which is next to the bridge.

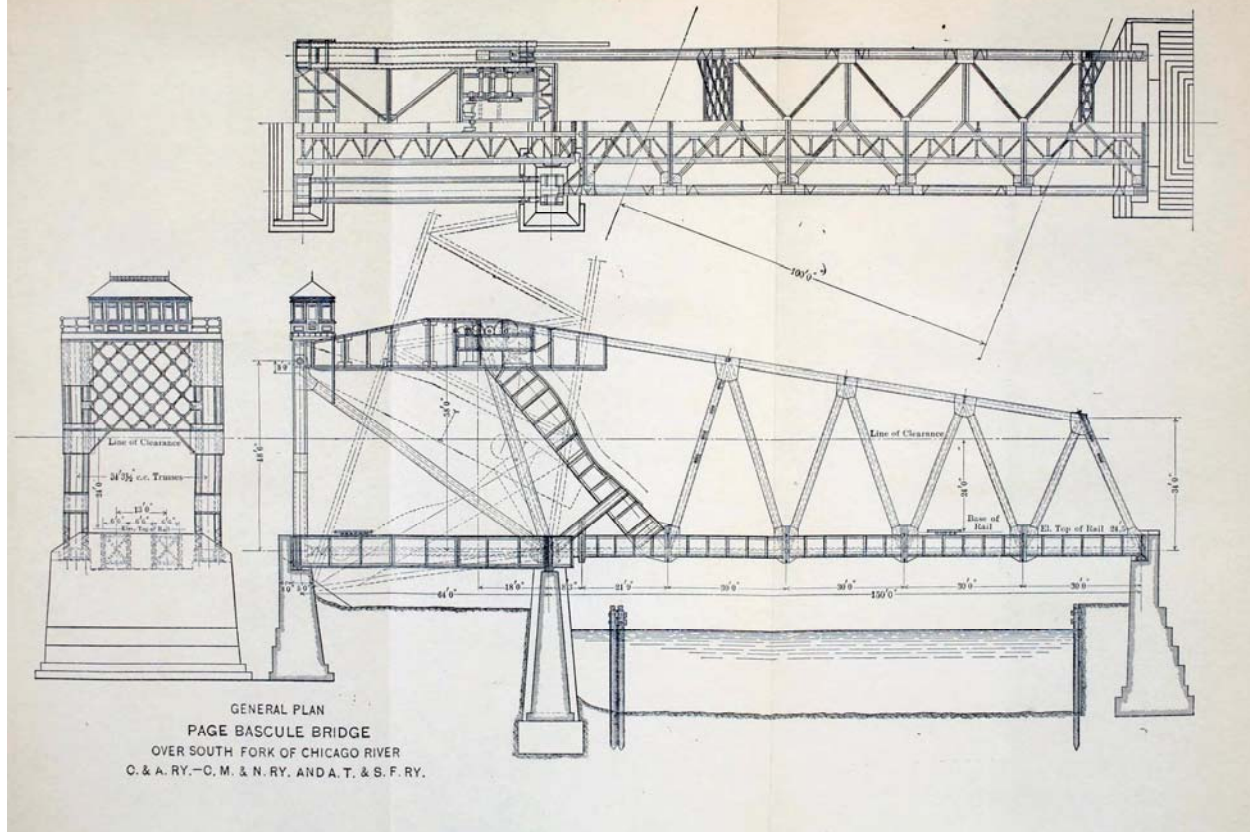


The Chicago and Alton Railroad Bridge as seen today from Canal Origins Park, north of the bridge.



"Bridge rises as the counterweight goes down just as the crowbar comes up when the toe of the boot is pressed down with the heel as fulcrum" was the caption, which accompanied the above drawing in the January 1909 issue of *Railway and Locomotive Engineering*. The drawing, which showed a foot stepping on a crowbar overlaid on a drawing of a Page bascule bridge, offered a simplified explanation of how the Chicago and Alton Railroad operated.



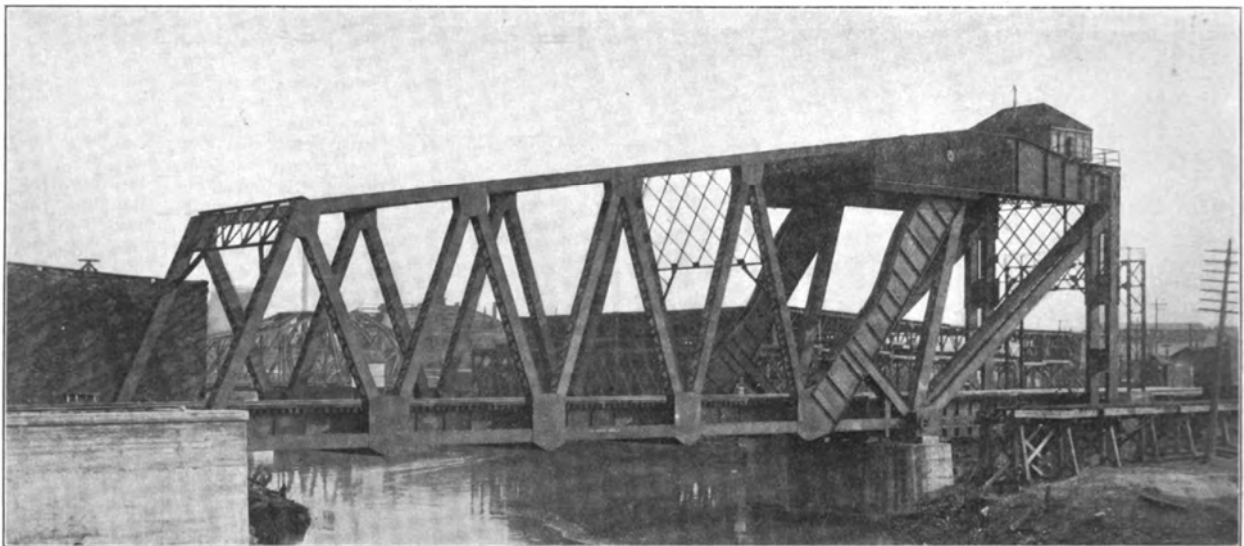


As shown in the Transactions of the American Society of Civil Engineers (Volume 60), this is a drawing of the Chicago and Alton Railroad Bridge.

PLATE XXXIII.  
TRANS. AM. SOC. CIV. ENGRS.  
VOL. LX, No. 1071.  
HUGHES ON  
MOVABLE BRIDGES.



As shown in the Transactions of the American Society of Civil Engineers (Volume 60), this is a historical photo of the Chicago and Alton Railroad Bridge in the raised position, taken just before the swing bridge it replaced was demolished. The swing bridge is visible to the right in the photo.



This historical photo of the Chicago and Alton Railroad Bridge from the June 14, 1907 issue of the *Railroad Gazette* shows the bridge in its lowered position.

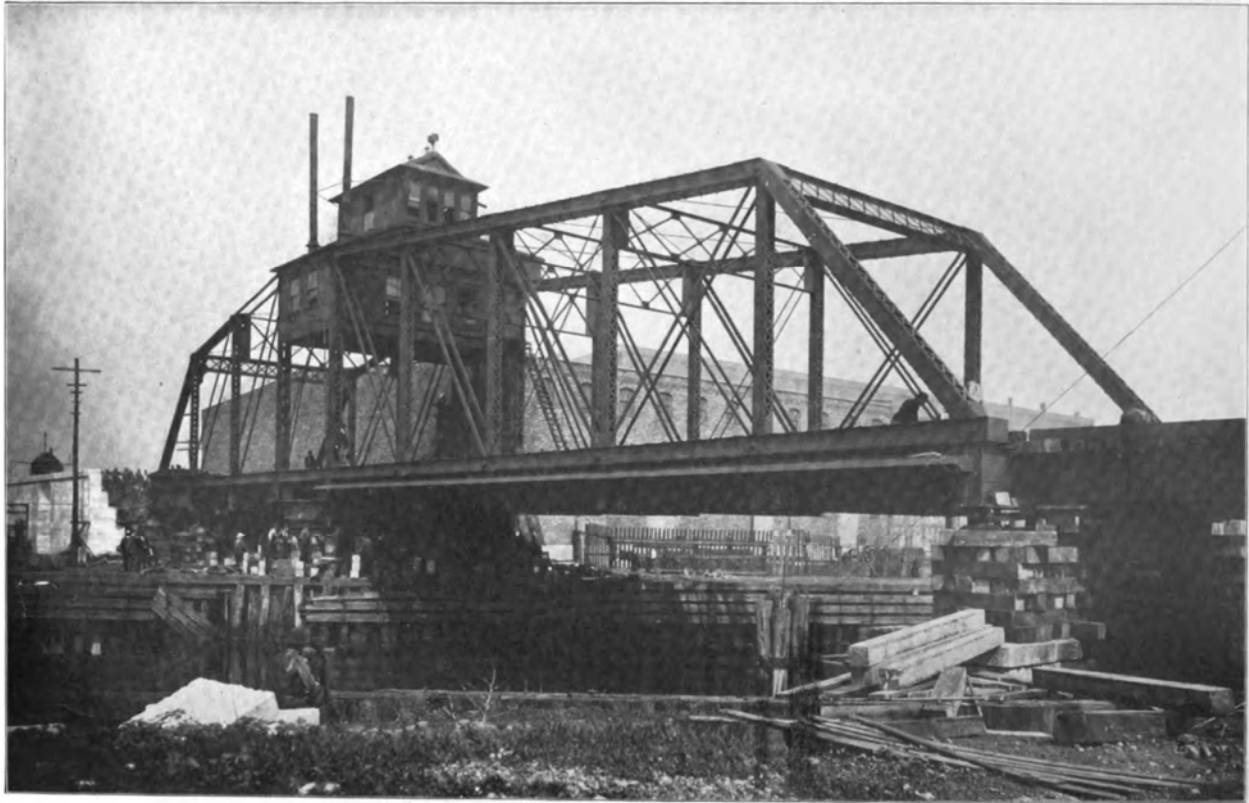




A photo from 2010 showing the abandoned Chicago, Indianapolis, and Louisville Railroad Bridge Over Grand Calumet River in Hammond, Indiana. The span to the right is the Page bascule bridge. All operating equipment had been removed, but the distinctive curved rack girder remained in place. The span on the left was also specially designed so that it could also be converted into a bascule span if needed in the future.



An older photo of the abandoned Chicago, Indianapolis, and Louisville Railroad Bridge Over Grand Calumet River in Hammond, Indiana courtesy James L. Cooper. This photo shows clearly the unusual design of the fixed span pictured to the left that was specially designed so that it could also be converted into a bascule span if needed in the future. Note the differing inclination angle of the end posts, and the extra diagonal member between the hip vertical and the end post at the abutment end of the bridge.



Historical photos showing the previous Chicago and Alton Railroad Bridge —A bobtail through truss swing bridge.