

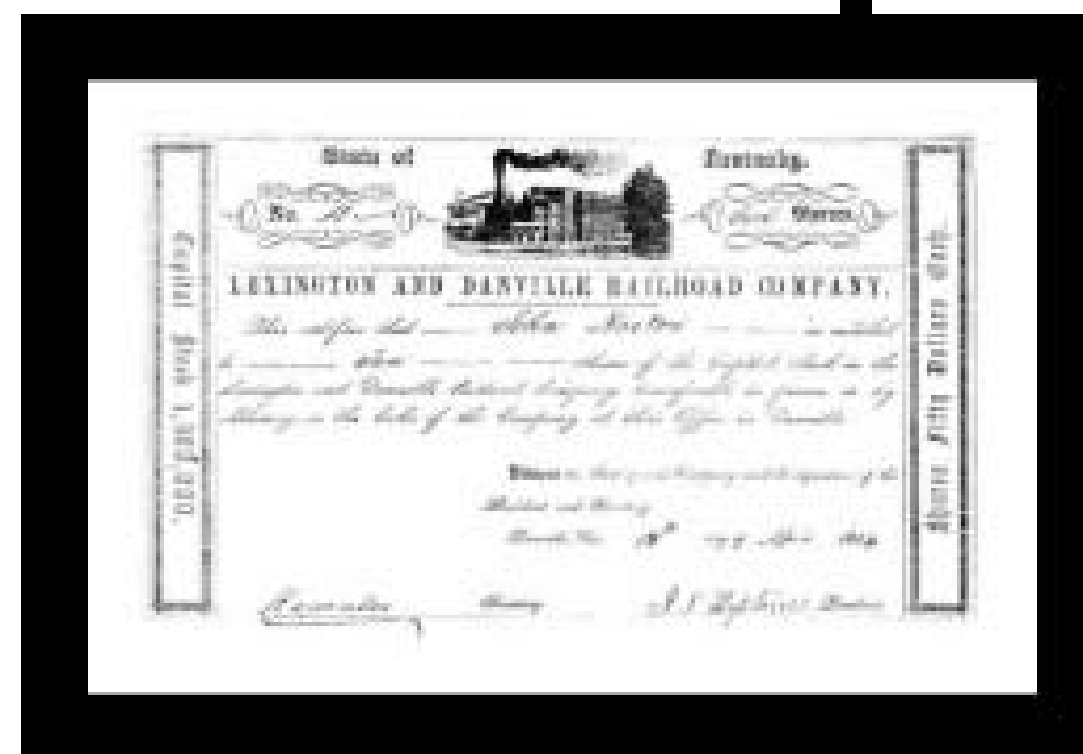
# The Suspension Bridge that was never built.

Roebling went on to design New York's Brooklyn Bridge.

## 1850

### Lexington & Danville Railroad

A bridge over the Kentucky River gorge between Jessamine and Mercer Counties was first conceived with the chartering of the Lexington and Danville railroad company by the Kentucky General Assembly. Visionaries like War of 1812 hero General Leslie Combs of Clark County spearheaded the push for a better transportation network.



This Lexington & Danville Railroad Stock Certificate was issued in 1854.

## 1851



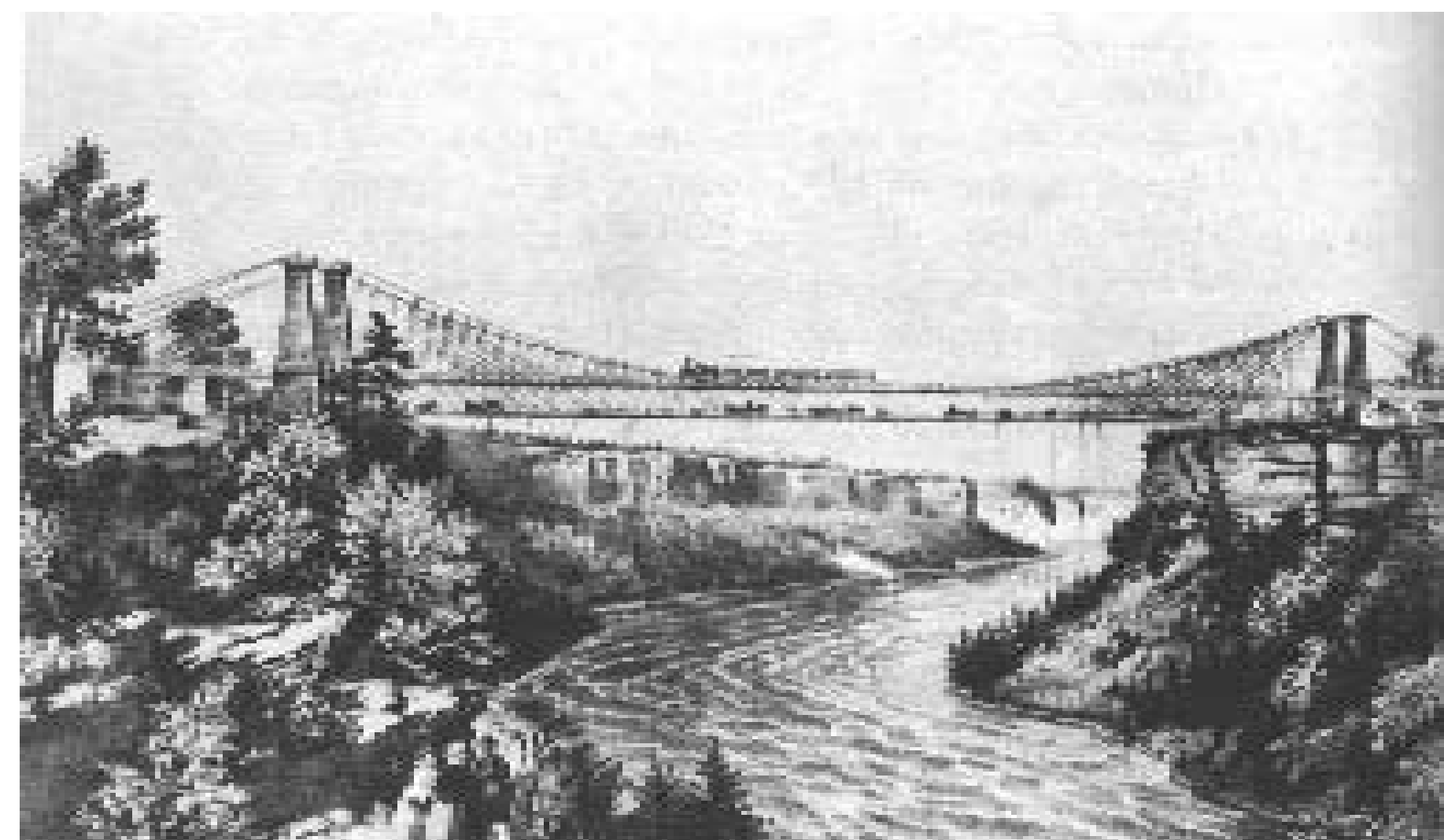
### John Roebling

John Augustus Roebling, born in Muhlhausen, Prussia, took on the task of designing a bridge over the Kentucky River. He envisioned a suspension bridge over the chasm – 1,300 feet wide and 280 feet deep. Massive stone towers were erected on opposite sides of the river

at a cost of \$100,000. Steel cable was delivered to the site, as well as the steel girder material for the superstructure.



Roebling's stone towers, which were built to support the steel cables of a suspension bridge, graced the cliffs of the Kentucky River for



### Roebling's Niagara Falls Gorge Bridge

When Roebling was called upon to build the High Bridge over the Kentucky River, he was already working on a 900-foot-long suspension bridge over the Niagara River Gorge in Canada which was completed in 1855. The design of the Kentucky River Suspension Bridge was to be very similar to the Niagara bridge.

## 1857

### The Panic of 1857

Roebling's work on the bridge is halted when the Lexington & Danville Railroad Company goes broke during one of the most severe economic crisis in U.S. history. The crisis is kicked off by the failure of the New York City branch of the Ohio Life Insurance & Trust Company.



## 1860

### War Between the States

The Cincinnati City Council requested \$1,000,000 from the Ohio Legislature toward the construction of a southern railway project, but the onset of the Civil War cut short this effort. Plans for Roebling's suspension bridge over the Kentucky River are abandoned.

## 1867 - Covington Bridge



With the Civil War at an end, one of Roebling's other projects, a suspension bridge between Cincinnati and Covington, Kentucky, is completed. At that time it was the longest suspension bridge in the world at 1,057 feet. After designing New York's Brooklyn Bridge, Roebling died during its construction, and the bridge was completed in 1883 by Roebling's son.

## 1868 - Legislation Resumes

As the stone bridge towers stand unused, the Cincinnati City Council again asks the Ohio Legislature for funds to build a railroad south to Chattanooga. Cincinnati hopes to gain superiority over rival city Louisville as the dominant access point to southern markets.

## 1870 - The Cincinnati & Chattanooga Railroad Company

By act of the U.S. Senate, the Cincinnati & Chattanooga Railroad Company is incorporated "...to promote commerce and to cheapen the transportation of mails, military and naval supplies between Cincinnati and Chattanooga."

## 1871- Leslie Elected

Republican John Marshall Harlan is defeated by Democrat Preston H. Leslie in the Kentucky gubernatorial race. The new governor favors a new southern railway much to the displeasure of Louisville businessmen and their L & N Railroad which dominated trade in the region.

## 1871 - John C. Breckinridge



To garner support for the project in Frankfort, Confederate veteran Gen. John C. Breckinridge is brought in as a lobbyist for the Southern Railroad.

## 1871 - Bill Passes

The Cincinnati Southern Railroad won the right to expand into the Bluegrass State and on to Chattanooga. Central Kentucky was the preferred route, and the chasm at High Bridge was the biggest obstacle.

## 1874 - Property Rights and Wrongs

Cincinnati Southern purchased the properties of the defunct Lexington and Danville line for \$300,000. Interestingly, the stone towers were not included in this purchase. An old lien on the towers was purchased by Harrodsburg lawyer Ben Lee Hardin, who hoped to make a neat profit from the sale of the towers to the Cincinnati Southern. Eventually a settlement was reached.

# Construction Begins: A Cantilever Bridge Over the Kentucky River

## 1874

### Charles Shaler Smith

Legendary bridge designer Charles Shaler Smith of the Baltimore Bridge Company, was brought in to resume construction after the initial Roebling bridge was abandoned. Rather than utilize the existing stone towers for a suspension bridge, Shaler decided to use another innovative but lesser-known method called cantilever construction.



Civil War Veteran and bridge designer, Charles Shaler Smith



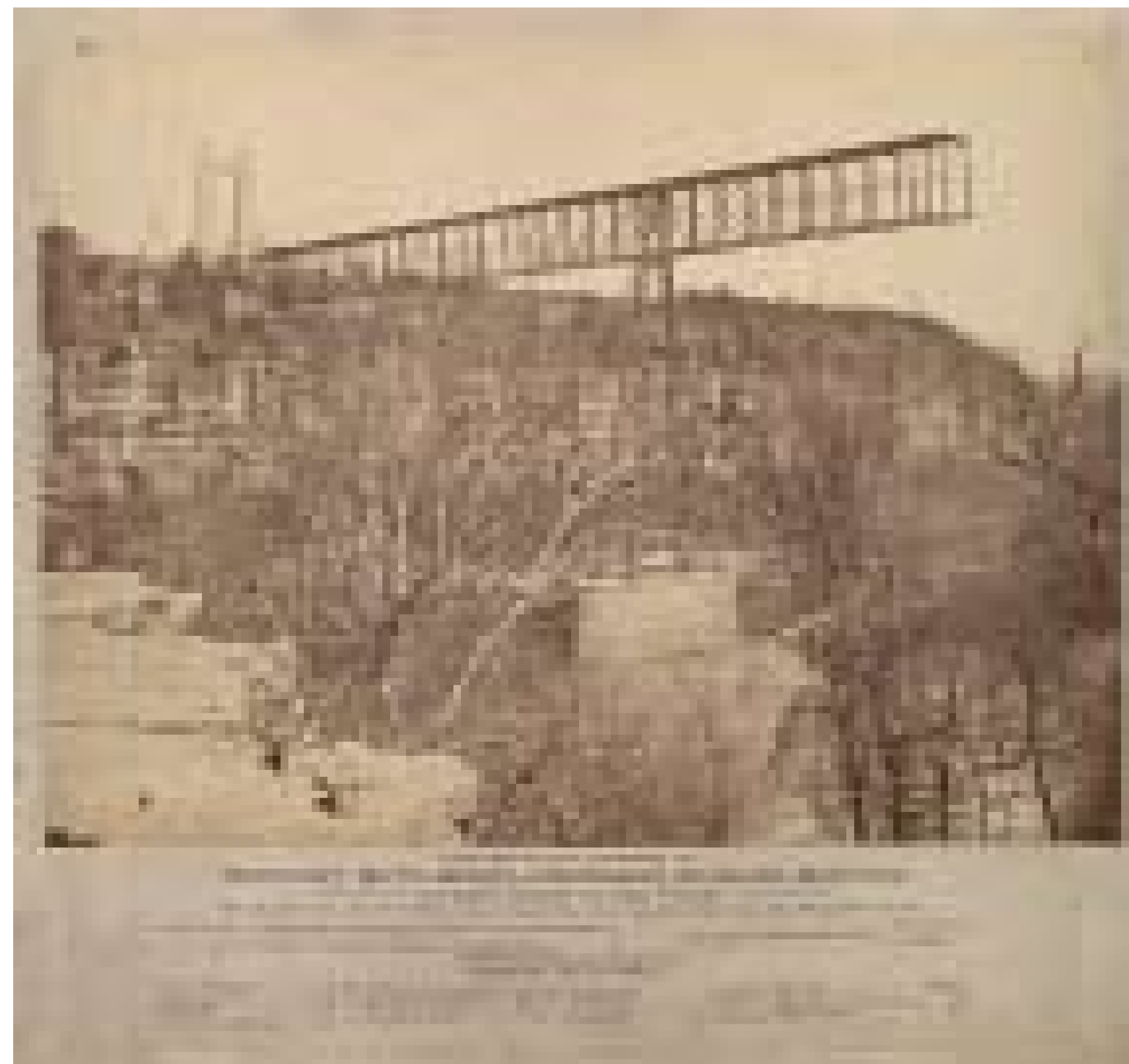
Shaler's cantilever bridge did not require the stone towers, but still they remained.

The cantilever bridge was built outward from each cliff using temporary piers on dry land to support the structures as they extended outward over the river toward two permanent stone foundations set in bedrock.

## 1876

### Construction Begins

The Baltimore Bridge Company began construction on October 16, 1876, and finished on February 20, 1877, at a total cost of \$404,856.58.



### Cantilever Bridge

A bridge formed by two projecting beams or trusses that are joined in the center by a connecting member and are supported on piers and anchored by counterbalancing members. Unlike suspension bridges where the load is supported at either end of the bridge, the strength of a cantilever bridge comes from a structure or structures positioned towards the middle of the bridge.



Construction at High Bridge in 1877. Note the temporary wooden towers.

