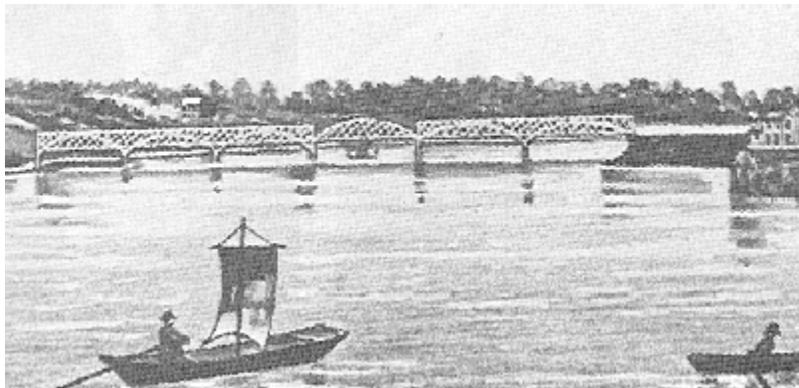


BRIDGING THE YEARS



The Government Bridge, connecting Rock Island, IL and Davenport, IA, is one of the oldest bridges of its kind still in use on the Mississippi River. However, this bridge wasn't the first attempt to link these two cities. Without the very first bridges here, Government Bridge may have never existed.

1856: A Bridge to the Frontier



The first railroad bridge to cross the Mississippi River was in Rock Island, Illinois. It joined the eastern U.S. with the West by rail to expand the shipment of goods. Before the railroad, shipping lines thrived along rivers, especially the Mississippi.

This bridge was located slightly upriver from the present Government Bridge that stretches between the western end of Arsenal Island and Davenport, Iowa. Construction began in 1854, and the bridge was completed in April 1856. The structure consisted of five wooden spans and one draw span, which was located in the middle of the river. Two coats of white paint were all that protected its timbers from weathering. It was quite an amazing site for people in the area. Nothing of this size or significance had ever been seen here before.

In May of 1856, just two weeks after opening the bridge, the steamboat Effie Afton struck one of the its piers. The boat was destroyed by fire, and a portion of the bridge also burned. The steamboat company which owned the Effie Afton filed a lawsuit against the railroad. They claimed the bridge was a public nuisance. Abraham Lincoln, an attorney in Illinois at this time, was hired to defend the railroad company. The outcome of the trial gave all river traffic the right-of-way, but the railroad would remain. It was here to stay.

The bridge was repaired and used for many years. Eventually, due to the growing number of trains that crossed it and the toll time had taken on it, the bridge had to be rebuilt. In 1865 the bridge was rebuilt around the old structure, but was again built with wooden timbers.

1872: An Iron Replacement



In 1872, another bridge was built to replace the wooden one. However, the location was changed. This bridge was built on the same site as the present day Government Bridge. It consisted of a single rail line above a wagon path. The train track was designed to be on top because the smoke and noise frightened horses when trains ran under them.

The Baltimore Bridge Company built this bridge. Its posts and top chords were wrought iron and the ties were flat iron bars. It had five spans 220 to 260 feet long, and a draw span that was 368 feet long. The width was only 16 feet, which sometimes made two-way wagon traffic difficult.

During this time, the railroad industry was growing fast. As it grew, so did the locomotives and rail cars. In time, this bridge wasn't strong enough to handle that kind of weight.

1896: The U.S. Government Bridge



The Government Bridge was especially built to accommodate greater and heavier railroad traffic. However, streetcars, horse carriages, walkers, and eventually automobiles have also made great use of it. This stronger steel bridge has stood the test of time and is still in use today. Little has been done to change it in all these years. It has five spans plus a swing span. The swing span alone is 360 feet long and weighs 1,250 tons! Originally a 56 horsepower streetcar motor was the only power needed to swing it open and closed. Today it is operated using a Variable Frequency Drive System that makes turning the bridge easier and more efficient. With two railroad tracks on top of a roadway and a swing span that can turn 360 degrees in either direction, it is one of only two like it in the world.



Bridge personnel are on duty 24 hours a day. They have to be able to open the bridge anytime a large boat like a towboat with barges needs to go through. The bridge operator controls the swing span from the house located on top. A "ground person" used to be needed to make sure all traffic was off the bridge before it was turned. However, today the bridge has been equipped with numerous cameras that the operator can monitor and be sure that the bridge is all clear before moving.



It only takes a couple steps to swing the span open. First, centering arms controlled originally by air pressure and today by hydraulic pressure lower both ends of the bridge by about six inches to allow space for the span to turn. Next, the operator determines which direction to swing it and uses levers to rotate that way. The motor turns a differential similar to one that operates an automobile. That differential transfers power to shafts that run to the base. There the shafts are connected to chains, which turn the span. The base of the span sits on 60 cast iron pony wheels that act as ball bearings. These make it possible to turn all that weight with ease.

Once the bridge is off its "peg," or locking device, the wind can easily turn it. If there is a wind, often the motor is not needed, and the brake is used to control the speed. A 35-mile per hour wind speed restriction was placed on the bridge for safety, but is left up to the operator's discretion.