HAER AR-93 AR-93

POINT REMOVE BRIDGE (Cherokee Road Bridge) Spanning Point Remove Creek at Cherokee Road Morrilton Conway County Arkansas

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

HISTORIC AMERICAN ENGINEERING RECORD
National Park Service
U.S. Department of the Interior
1849 C Street NW
Washington, DC 20240-0001

#### HISTORIC AMERICAN ENGINEERING RECORD

# POINT REMOVE BRIDGE (Cherokee Road Bridge)

#### HAER No. AR-93

Location:

Spanning Point Remove Creek at former section of Cherokee

Road, Morrilton, Conway County, Arkansas

UTM:

15.521184.3888896, Morrilton West, Arkansas, Quad.

AHTD #:

M3506

Structural Type:

Pratt through truss

Construction Date:

Probably between 1895 and 1910

Builder:

Unknown

Owner:

Conway County, Arkansas

Original Use:

Vehicular bridge

Present Use:

Bypassed and abandoned

Significance:

Point Remove Bridge is an intact example of a late nineteenth or early twentieth century pin-connected Pratt through truss. Although the details of its construction are unknown, it is representative of the pre-highway era of bridge building in

Arkansas.

Project

Information:

The Arkansas Historic Bridges Recording Project is part of the Historic American Engineering Record (HAER), a long-range

program that documents historically significant engineering

sites and structures in the United States. HAER is administered by the Heritage Documentation Programs Division of the National Park Service, United States

Department of the Interior, Richard O'Connor, Manager. The

Arkansas State Highway and Transportation Department

sponsored this project.

Lola Bennett, HAER Historian, 2007

# Chronology

1803	Louisiana Purchase doubles size of the United States
1817	Treaty with Cherokee Indians
1819	Arkansas Territory created from part of Louisiana Purchase
1820s	Construction of military roads stimulates white settlement west of the Mississippi River
1825	Conway County formed
1830	Congress passes Indian Removal Act
	Native Americans begin exodus to Oklahoma on the "Trail of Tears"
1836	Point Remove appears on Mitchell & Hinman's "New Map of Arkansas"
	Arkansas becomes 25th state to join the Union
1840	First white settlers arrive on Petit Jean Mountain
1843	Thomas Beeson settles at the mouth of Point Remove Creek
1844	Pratt truss patented
1852	First iron Pratt truss built for the Pennsylvania Railroad
1872	Little Rock & Fort Smith Railroad opened through Conway County
	Town of Morrilton platted
1873	Arkansas Legislature authorizes counties to build and maintain bridges
1874	Conway County begins building metal truss bridges <sup>1</sup>
1883	Conway County Court authorizes Thomas Douglas to operate a ferry at this site
1892	Upper Road proposed between Petit Jean Mountain and Morrilton
1894	Crossing does not appear on USGS Morrilton Quadrangle
1918	State Highway 9 Bridge erected across Arkansas River south of Morrilton
1926	Arkansas Highway Commission describes Point Remove Bridge as "old and unsafe"

 $<sup>^{\</sup>rm 1}$  See HAER No. AR-32, Springfield-Des Arc Bridge.

## **Description**

Point Remove Bridge is a 120', pin-connected Pratt through truss on concrete-filled steel cylinder piers. There is a steel stringer approach span at each end of the bridge. Ornamental iron railings flank the roadway.

The upper chords are built-up members, comprised of back-to-back channels with a plate on top and lacing underneath. The lower chords are paired forged eyebars. The upper and lower chords are connected by built-up vertical posts and paired diagonal braces. At each panel point, the members are joined with a steel pin. Overhead bracing consists of a transverse strut at each panel point and lateral tension rods crossing between the struts.

Built-up floor beams are suspended from the lower chord with U-bolt hangers that loop over the pins at each panel point. Steel I-beam stringers are laid longitudinally on top of the floor beams and a wood plank deck is laid transversely on top of the stringers.

# History

Point Remove Creek heads in Van Buren County and flows in a winding, southerly course through Conway County, to a point 1-1/2 miles south of Morrilton where it empties into the Arkansas River. The southeast boundary of Cherokee lands from 1817 to 1828 is located near "Point Remove," the name being derived from the French word *remous*, meaning an eddy or whirlpool.<sup>2</sup> The Town of Morrilton was platted in 1872, when the Little Rock & Fort Smith Railroad built a line through Conway County. In 1880, the *Arkansas Gazette* noted Morrilton's "growing importance as a business point."<sup>3</sup>

Standing approximately 10 miles southwest of Morrilton, Petit Jean Mountain was a favorite spot of the region's early settlers. By the late nineteenth century, a resort hotel was established on Petit Jean, but the most direct overland route from Morrilton to the mountain required crossing both Point Remove Creek and the Arkansas River. In 1883, Conway County granted a license to T.B. Stout to operate a ferry across Arkansas River west of Morrilton, but at least as late as 1891 travelers would often detour around Point Remove by way of Ward's Ferry at Lewisburg. In 1892, a road was proposed from Petit Jean Mountain to Morrilton. The road crossed the Arkansas River at Stout's Ferry and traveled easterly through Willow Bend to the mouth of Point Remove Creek, where it connected with present-day Cherokee Road.

<sup>&</sup>lt;sup>2</sup> Ernie Deane, Arkansas Place Names (Branson, Missouri: Ozarks Mountaineer, 1986), 175.

<sup>&</sup>lt;sup>3</sup> Arkansas Gazette, 24 July 1880, 4.

<sup>&</sup>lt;sup>4</sup> The Pilot [Morrilton, Arkansas], 31 July 1891.

<sup>&</sup>lt;sup>5</sup> U.S. Post Office Department, "Reports of Site Locations: Achme, Conway County, Arkansas, 1892."

Point Remove Bridge was built sometime between 1895 and 1910 to facilitate travel on the "Upper Road" between Morrilton and Petit Jean Mountain. Physical examination of the bridge is nearly impossible due to the presence of barricades and vegetation, but the structure's pinned connections and delicate ironwork suggest a late nineteenth century date. Unfortunately, many Conway County records are missing from the period and at least six crossings have been identified on Lower Point Remove Creek, so the date and builder of this bridge remain unknown. The bridge was clearly in place well before 1926, when Arkansas Highway Commission engineers described it as "old and unsafe." Point Remove Bridge was bypassed by a modern bridge in the mid-twentieth century.

### Design

Civil engineer Thomas Willis Pratt (1812-1875) was born in Boston, where his father, Caleb Pratt, was a noted architect. After obtaining his secondary education in the public schools of Boston, he enrolled at the Rensselaer Academy (now Rensselaer Polytechnic Institute) in Troy, New York, where he studied architecture. After graduation, Pratt worked for the Army Corps of Engineers, building dry docks for the Navy Yards at Charleston, South Carolina, and Norfolk, Virginia. In 1833, Pratt was employed by the Boston & Maine Railroad, where he began designing bridges. The remainder of his career was devoted to engineering and supervising work for railroad lines in the Eastern Unites States.

During his career, Thomas Pratt patented several inventions, including a steam boiler and a method of ship hull construction. The patent he achieved notoriety for is a roof and bridge truss, patented in 1844. The Pratt truss reversed the configuration of the 1840 Howe truss, putting the shorter web members in compression and the longer web members in tension, which greatly reduced the chances of structural failure through buckling. Developed at a time when the structural action of trusses was just beginning to be understood, the Pratt truss was one of several truss types that heralded the transformation from empirical to scientific bridge design. Over time, the Pratt truss came to be favored for its strength and straightforward design; by the 1870s it was the standard American truss type for moderate railroad and highway spans and continued to be so well into the twentieth century.

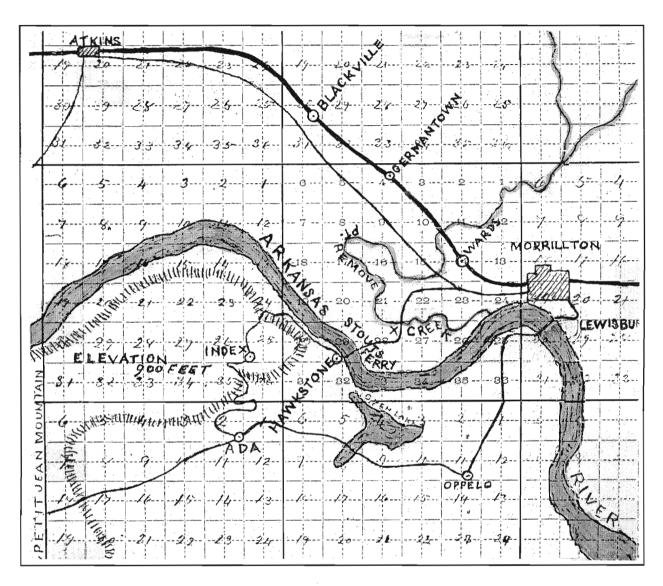
<sup>&</sup>lt;sup>6</sup> The 1894 USGS Morrilton Quadrangle shows present-day Cherokee Road stopping a short distance north of this crossing.

<sup>&</sup>lt;sup>7</sup> Conway County Court Records Books K (1880-1882), O (1894-1898), P (1899-1901) and R (1905-1906) were not found.

<sup>&</sup>lt;sup>8</sup> Arkansas Highway and Transportation Department, Bridge Records: Bridge No. M1791.

#### **Sources**

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Map showing Petit Jean Mountain, Point Remove Creek, Stout's Ferry and Ward's Ferry, adapted from U.S. Post Office Department, "Reports of Site Locations: Oppelo, Conway County, Arkansas, 1894."