



DEERPARK DIARY

Town of Deerpark Historian's Office
25 Grange Road, P.O. Box 621, Huguenot, NY 12746 (845) 856-2702

December 2008

Volume 5

Issue Number 4

- **Roads and Bridges**
- **The Tale of Two River Crossings**
- **Bridges for Boats**
- **D & H Canal Bridges**
- **Tri-State Bridges**

ROADS AND BRIDGES

Because of its geographic location near the Delaware, Neversink and Mongaup Rivers, Basha Kill and numerous streams, Deerpark's roads are in need of many bridges.

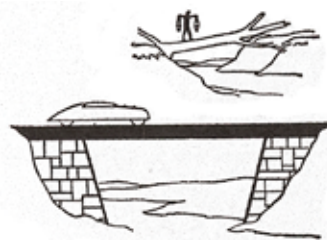
An early notation about river crossings dates back to the time of the Old Mine Road (today's Route 209), which was built about four hundred years ago. Conrad Weisser who was traveling the Old Mine Road wrote in his journal on August 28, 1750, "Came to the Delaware, across which we swam our horses". We don't know exactly where he crossed the river, however it gives us an idea how rivers were crossed before bridges were built.

When the first Peenpack settlers came to our valley by traveling on the Old Mine Road from Esopus (Kingston), they had to cross the Neversink River somewhere in the Cuddebackville/Godeffroy area. They must have used a shallow area in the river to ford with their wagons.

Before bridges were built, ferries crossed deep water using a flat barge pulled across by cables on pulleys stretched from shore to shore.

In time private companies built toll bridges at major river crossings.

Bridges come in many sizes and shapes. The earliest type of bridge was ready made. It was a fallen log lying across a stream, a rock arch or tangled vines growing across a ravine. When a better stream crossing than the fallen log was needed, another log was rolled beside the first one. This made a wider roadway in order to pull a sled or cart across the stream. The next step was to lay down several more logs, and fill in the cracks to make the roadway smooth. This type of bridge worked well unless the loads were very heavy which caused the bridge to bend and sag in the middle. To solve this problem the pier was invented.



Simple Beam Bridge

A pier is a support that is fastened in the bed of a river to keep a bridge from sagging under its own weight. By using enough piers, a bridge can be built across nearly any body of fairly shallow water, no matter how wide it

may be. Some stream channels are very deep and rushing water can sweep away the bridge piers. Such streams can be crossed by a truss bridge.



Truss Bridge

A truss bridge is an arrangement of planks or beams fastened together in such a way that each plank shares part of the weight of the bridge. Truss planks can be either above or below the roadway of the bridge.



Arch Bridge

Bridge arches must be planned carefully by engineers. If the arch is too long or if the piers at the ends are too light, the outward thrust will push the sides out and the top will cave in. If an arch is too light at the top, or too heavy at the sides, the upward thrust will push the top up and the sides will cave in.

An excellent example of the arch bridge is the railroad bridge on Neversink Drive.



Suspension Bridge

In the late 1700s, suspension bridges strong enough for long spans were developed. The suspension bridge hangs on cables that are fastened to high towers on each bank. It does not cost as much to build as other long bridges. The great fault of the suspension bridge is that it quivers and sways with the wind.

There are numerous other types of bridges. Their construction depends on the needs of the area. In Deerpark, simple beam, truss, arch and suspension bridges have been used throughout history.

THE TALE OF TWO RIVER CROSSINGS

In the near future there will be a new bridge over the Neversink River in Cuddebackville to replace the current bridge.

The first bridge to cross the Neversink at this point was a toll bridge. During the early 1800s companies were incorporated to raise money to build bridges. These corporations were usually given for a period of years, often 25-30 years. After the time had expired the corporation was renewed for another period of time. At some later date, most of these bridges were taken over by a town, city or state and became free use bridges.

Then a wooden suspension bridge was built around 1850. This bridge served horses and wagons well, but in time increased traffic proved that a more substantial bridge was needed.



Cuddebackville Wooden Suspension Bridge (Photo courtesy Neversink Valley Area Museum)

In July 1902, the Deerpark Town Board and the Commissioners of Highways awarded a contract to the Owego Bridge Company to build a new iron bridge. According to the Port Jervis Gazette (July 19, 1902) *The bridge will consist of a single span of 204 feet, to be placed on the old abutments, and roadway of sixteen feet in the clear. It will have a capacity of 100 lbs. to the square foot and of sufficient strength to carry any load that may possibly pass over it. The bridge is to be completed by December 1, 1902. The plank for the bridge is to be furnished by the town, and placed on the bridge by the company. The cost of the bridge is \$6,500.00.*



1904 ice gorge level with the Neversink River bank and touching the bottom of 1902 iron bridge



*Construction of current bridge
A temporary structure was built to facilitate crossing the river.*

August 14, 1928

Photo courtesy Brian Lewis

With an even greater increase in traffic, the bridge currently in use was built in 1928. It was resurfaced in 1975.

After numerous inspections, the current bridge was found to be in need of replacement. Tentative plans call for construction of a new bridge to begin in 2009 by the NYSDOT. Pictures and plans for the new bridge and its location can be seen at Town Hall.



Rep. John Hall, center, DOT's Dave Bennett, left, and Deerpark Supervisor Gary Flieger examine the Cuddebackville Route 209 bridge, March 21, 2008

At the same time as the suspension bridge was being built in Cuddebackville (1850) the Gumaer family built a bridge to cross the Neversink River in Godefroy. When repair to this bridge became necessary the Port Jervis Gazette, August 24, 1889 wrote: *The work of repairing the suspension bridge across the Neversink*

River, near Port Clinton (Godeffroy), was commenced by Mr. Darius Rhodes, the contractor, last Thursday. On Tuesday, he expects to commence tearing up the roadway of the bridge, and teams will have to ford the river just below the bridge until the bridge is put in condition. The water in the river is low and there will be no difficulty in fording the channel at that point. Another crossing may be made by means of the D & H Canal aqueduct.

These wooden bridges carried horse-drawn wagons with ease, however in time a new bridge was needed. The Evening Gazette, September 25, 1897 has the following headline:

A New Structure Has Been Completed

A special meeting of the Town Board was held at the office of Town Clerk, Joseph Johnson on Friday afternoon. Present; Supervisory T. J. Quick, J. N. Case W.H. Shaw, J. J. Bross, A verbal report was received from Chief Engineer Irving Righter stating that the bridge at Godeffroy had been completed and that he would suggest that the board pay contractor D. Rhodes a sum of \$500 as part payment on contract. Supervisor Quick was authorized to pay Mr. Rhodes \$500. Supervisor Quick offered a proposition from Mr. Case Caskey of Huguenot to purchase the old timber taken from the bridge at Godeffroy for \$15. The proposition was rejected. The Supervisor was authorized to sell it for \$25.

In 1928, the old 1902 Cuddebackville iron bridge was recycled by being dismantled and moved down river to replace the



An overloaded truck caused this collapse of the Godeffroy bridge in 1927.

1897 Godeffroy bridge.

In the early 1970s, after discovering that the old iron bridge was in a very dilapidated condition, the county did emergency repairs and raised the computed safe load limit to five tons.

In 1975 Orange County replaced the old iron bridge with a 165-foot span, 20-ton limit, concrete and steel two-lane bridge. It took about four months to finish the bridge at a cost of \$145,000.

BRIDGES FOR BOATS

An aqueduct is a bridge that carries canal boats over rivers or other waterways. When the D & H Canal was enlarged between 1847 and 1851, four new aqueducts were built. John A. Roebling (1803-1869), scientist, inventor, writer, manufacturer, bridge-building genius, music lover and gifted with languages, designed the aqueducts for the canal company. He innovated many aspects of bridge design. His greatest engineering accomplishment was designing the Brooklyn Bridge.

Roebling's plan for the enlarged Neversink River aqueduct was a 170-foot, one-span structure with 9 5/8" cables. The company preferred his wire suspension construction, because fewer piers were needed to hold up the

aqueduct. Fewer piers meant less repair expense each winter from ice flows.

According to Roebling's notes the dimensions of the Neversink aqueduct were: "span from center to center, 170 feet; pyramids to be two feet higher than those on the Delaware aqueduct; bottom of the saddle above the canal bottom, fourteen feet, seven inches; point of intersection above the canal bottom, fourteen feet, ten and a half inches; camber, eleven inches; cables above beams at the center, three and a half inches; cables below bottom at the center, one and a half inches; lowest point of cables above canal bottom, nine and a half inches; deflection of cables, fourteen feet, one inch; trunk, seventeen feet six inches wide at the bottom, twenty feet wide at the top, and nine feet deep. The water surface would be nineteen feet, one inch wide. The surface of the Neversink River at low water would be twenty-one feet below the bottom of the aqueduct."* The total cost for the aqueduct was \$25,130.40.



Roebling Neversink Aqueduct

Roebling worked from High Falls during the construction of the Neversink aqueduct. David S. Rhule, one of his employees, was in charge of the project, how-

ever Roebling did check on the work periodically. As a matter of fact he insisted on laying the second anchorage. Records show that he was at the Cuddebackville site on September 4, 1849, September 20, 1849, December 5, 1849 and for an extended period late in January, 1851.

Today, the abutments are still intact and can be seen in the Orange County D & H Canal Park, Hoag Road, Cuddebackville.

**John A. Roebling, The Neversink and High Falls Aqueducts (Manuscript notebook, October, 1848).*

D & H CANAL BRIDGES

During the 19th century there were even more bridges in Deerpark than there are today. Over twenty bridges crossed the D & H Canal. Most of these bridges were narrow and high to allow canal boats to pass under them.

Most of the canal closed in 1899. Authority was given by New York State to sell the canal. This privilege was granted on condition that within a reasonable time after the sale the purchaser would restore the highway crossings by removing the bridges and filling in the bed of the canal. Nine bridges in the Town of Deerpark had to be taken down and grade crossings established. After the Town of Deerpark won a suit against the D & H Canal and other corporations who had purchased canal property, to compel the new owners to take down the bridges and repair the road surfaces, the Erie Railroad, as purchaser, agreed to complete the necessary work in 1902.

TRI-STATE NEVERSINK RIVER BRIDGE

In the early days of Deerpark, Carpenter's Point was the business center of the Town before the coming of the D & H Canal. The Neversink Bridge was a very important factor. The Clove Road, River Road, Shin Hollow Road and later the Port Jervis and Colesville Turnpikes converged at or near this Neversink Bridge. Before a bridge was built in the area, travelers forded the river near the mouth of Clove Brook about five hundred feet down the river from the present bridge.

A corporation of progressive citizens built the first and second bridges and tolls were charged. The first bridge was built in 1820. An ice flood carried this bridge away in 1826. The directors and stockholders held a joint meeting and, although they were much discouraged, concluded to replace the bridge. On June 26, 1826, the contract for rebuilding was given to Samuel Swartwout, President of the Board of Directors, and two other directors, Wilhelmus Westfall and Samuel Lambert.

After a number of years, this bridge was also carried away by a flood. The first two bridges had a pier under the center of the bridge. This also was carried away by the flood.

The people were getting tired of a toll bridge and concluded that this was a good opportunity to purchase the unexpired charter and the abutments. The stockholders put a price on the unexpired charter and abutments. The money was raised by subscription among the people and the third bridge, a covered one, was built by the Town of Deerpark.

In 1857, this bridge was nearly upset by ice from the Delaware River running up the Neversink River during a great flood. The bridge was repaired and after many years

was replaced by a wire suspension bridge.

The suspension bridge gave good service for a number of years, until it was flooded out in 1903. At that time it was replaced by a temporary wooden bridge until an iron bridge was built. This bridge was carried off the eastern abutment by ice from the Delaware coming up the Neversink River at the time of the ice gorge in 1904. The bridge swung around in the river and hung on a tree limb on the west bank of the river. The bridge was removed, returned to the factory for repairs and then placed back into position.*

This bridge was replaced in 1929 and refurbished in 1977.

**Information Source Port Jervis Gazette, February 24, 1924*



St. Nicholas Celebration Sunday, December 7, 2008 3:00-4:30

1863 Little Red
Schoolhouse

Town of Deerpark Museum
25 Grange Road, Huguenot

The Story of St. Nicholas

Meet St. Nicholas

Special Treats & Sweets

Make Crafts

Music and Fun

Presented by The Deerpark
Recreation Comm.

and

The Town of Deerpark
Museum

Call 856-2702 or 754-8070
For Information