

---

## NOTES AND DOCUMENTS

---

*Western Pennsylvania's "Big Steel" Bridge:  
The Ohio River Bridge of the P. & L.E. Railroad*  
By James D. Van Trump

THE turn of the twentieth century was a period when American railroads were constructing magnificent metal bridges as they approached the zenith of their magnitude and power. Everybody "thought big" in those days — big business was thinking of larger mills and factories, huge steel ships were launched, and railroads sought longer and more extensive railroad lines on which to run ever more stupendous steam locomotives.

The great steel bridges of New York City and those of the Mississippi River are famous, but the huge cantilever bridge of the Pittsburgh and Lake Erie Railroad, built in 1908-1910 across the Ohio River at Beaver, Pennsylvania, has been almost forgotten despite its size and beauty. Bridges owned by railroads that no longer have passenger service are now very much out of the public eye, but this bridge's very real merits should not be forgotten.

After 1900, steel had become the favorite building material for railway lines that were carrying increasingly heavy freight loads. The Pittsburgh region, with its three rivers, especially favored the large through-truss spans in which the steel superstructure could be constructed above the deck of the bridge. When cantilever trusses were used, the trusses were constructed out from the riverbanks to meet in mid-stream with no supports in the river channel.

The region of the Ohio below Pittsburgh was, in the early part of this century, particularly cantilever country, and the Beaver bridge was the largest and heaviest of the type. It has been changed little during its years as the most monumental bridge on the P.&L.E. line.

The Pittsburgh & Lake Erie, a short line of 400 to 500 miles, was chartered in the 1870s and operated chiefly as a freight line, with some

---

James D. Van Trump has written numerous articles on Western Pennsylvania history and has long been active in helping preserve the region's architectural heritage.

passenger service, between the West Virginia coal fields and the industrial regions around Pittsburgh and the Lake Erie ports. For many years it operated in conjunction with the New York Central, but when that line merged with the Pennsylvania Railroad, it reverted to its earlier status. In the course of its history it prospered exceedingly and was nicknamed "the Little Giant."

In the last three or four years, due to the depressed area it serves, the line has been losing money, but in recent months it tried to pull itself out of the red by adding trackage from the Norfolk-Southern line, to have access to more markets. That move, however, has been contingent on the U.S. government's sale of Conrail, which controls the Norfolk-Southern trackage. And other wheels have been turning that would transfer ownership of the railroad.

It is hoped that the P.&L.E.'s problems can be solved, as this would assure the future of the Beaver bridge. The great engineering marvel was constructed at the height of the line's prosperity. It was begun in 1908 to replace a bridge of 1878 that had become increasingly inadequate. Designed by the German-born and trained engineer Albert Lucius, the bridge was built by McClintic, Marshall Company of Pittsburgh, which also fabricated the great cantilever superstructure.

Built upstream from the old bridge, on stone piers supplied by the Dravo Construction Company of Pittsburgh, the trusses of the great cantilever are enormously heavy. A contributing factor in this heavy design was the Quebec Bridge disaster of 29 August 1907, when the entire south arm of the steel cantilever collapsed due to faulty design and fell into the St. Lawrence River. Everyone concerned with the Ohio River bridge made sure the disaster would not be repeated. All told, 16,287 tons of steel went into the construction of the cantilever. It was opened for traffic in 1910. The central span, 769 feet long, is suspended 90 feet above the water.

This is undoubtedly one of the great monuments of the Age of Steel. Many times when the train in which I was traveling entered this great intricate web high above the river channel I felt transported by a modern Hercules of almost supernatural proportion.

---

### *A Recycled Railroad Station at Ligonier*

At 339 West Main Street in Ligonier, at the edge of town, is a pleasant little building, tall and narrow, rather like a long lantern, in white

terracotta with large high windows. It seems something like a pavilion of the 18th century, perhaps for dancing or merry-making, but its smooth green surroundings connote something more business-like. A sign above the well-kept lawn informs us that this is the headquarters of the southwest division of the Pennsylvania Game Commission.

The tracks are now gone, but a "butterfly" train shed at the rear of the building indicates the building was once part of the terminal station of the Ligonier Valley Railroad, which I knew in my youth.

From 1877 to 1952 this small railway was an integral part of the Ligonier Valley. It was one of the first, as well as one of the smallest, financial undertakings of the Mellon family, which has been active in Westmoreland County for more than a century.

The railroad was first projected by a group of valley farmers and businessmen who felt the surrounding countryside needed a railroad which would transport the region's products to market. They could not raise enough money from local resources, and in 1877 contacted Thomas Mellon of Pittsburgh for a loan. In the past he had been adverse to this kind of venture, but his sons were very enthusiastic about it. The elder Mellon lent the money, but it was his sons who worked to make the line a reality. They worked on its construction, as conductors, ticket sellers — wherever they were needed — and here they learned many things that were useful in their later careers. They literally grew up in the business.

Three months after the contract was signed, the first train on the new railroad left the Ligonier Station for Latrobe, with practically the entire Mellon family on board. The first train ran through the scenic gorge of the Loyalhanna Gaps. Competition from motor traffic drove the railroad out of business in 1952.

One reason for the Mellons' early interest was their development of the Idlewild Park tract, four miles from Ligonier on the railway line. First leased from the Darlington family of Pittsburgh and then brought from them, the land became a very profitable and well-known amusement park for Pittsburghers. The park still exists, having been modernized much for the better, but Mellon interests sold the railroad and its rolling stock years ago.

The little station at Ligonier was built around 1909, at the time when many American railroads were building these festive looking structures. The entire Ligonier Valley seems somehow haunted by the ghost of the railroad; sometimes on a still evening I think that I can hear the forlorn whistle of its locomotive, an echo of the far past and of vanished picnics at Idlewild. ■