Baltimore and Ohio Magazine

On the Oroyo Railway, Peru.

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The Reconstruction of Bridge 467, Butler Branch, Pittsburgh Division, Crossing the Allegheny River, Foxburg, Pennsylvania

By P. H. Lang, Jr., Engineer of Bridges

THE reconstruction of the river spans in Bridge 467, Butler Branch, Pittsburgh Division, crossing the Allegheny River at Foxburg, Pa., recently completed, has been in progress since July of this year.

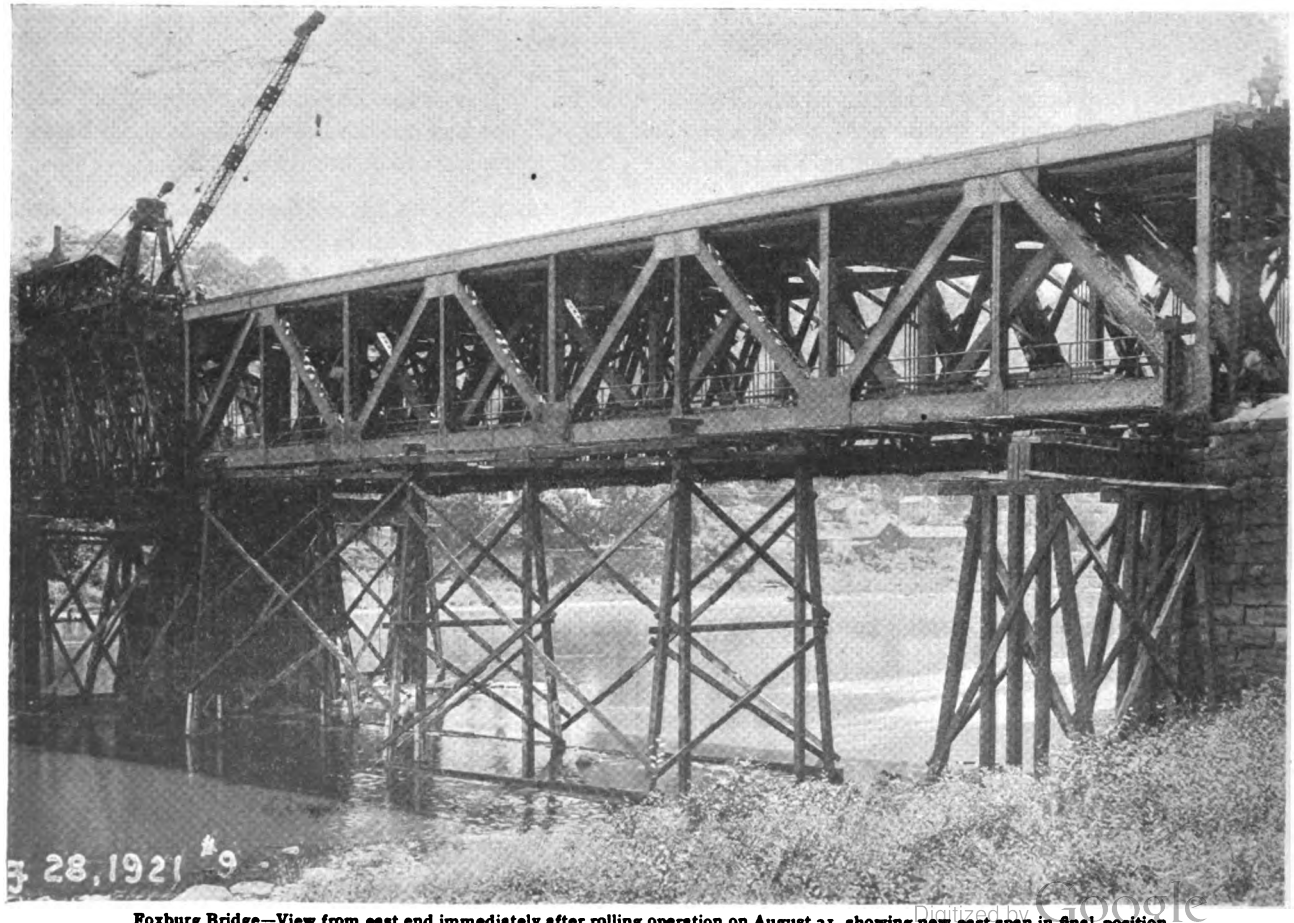
The new river structure, designed for modern loading, consists of three spans of riveted trusses, carrying the railroad traffic on the top chord and the highway traffic on the bottom chord. Contract for the fabrication and erection of these spans was placed with the Bethlehem Steel Bridge Corporation, in April, 1921, and the work was prosecuted continuously. The new spans were assembled and erected on falsework upstream from the existing bridge, the old spans rolled out of position and the new spans into position on rails and rollers. Such movements occurred on three separate occasions, namely August 21, September 18 and October 16, on each of which dates one of the spans involved was placed in final position. The total amount of steelwork included is about 900 tons. This improvement entailed very little work on the masonry substructure, which remains practically unaltered.

The original structure carrying the tracks of the Pittsburgh and Western Railroad, now a part of the Baltimore and Ohio System, across the Allegheny River at this point, consisted of three spans double track timber Howe trusses, built in 1872, and so designed as to support the railroad tracks on the top chord and the highway on the bottom chord. The bridge was reconstructed in 1908 as a series of timber Howe truss spans, and, in 1912, when the standard-gauging of the line from Foxburg to Mount Jewett was performed, the timber-bottom chord was replaced in steel for the purpose of providing increased carrying capacity.

The original structure at this point was owned by the Foxburg Bridge Company, in whose possession it remained from 1872 to 1904, and its use for the movement of railroad equipment was subject to the payment of toll. On January 2, 1904, in consequence of insolvency of the Bridge Company, its effects were sold at public auction in Pittsburgh, and, during the succeeding month, the purchasers incorporated as the Bridge Company of Foxburg, with whom, on April 1, 1904, the Railroad Company concluded a new agreement, providing for the use of the bridge. Operation under this agreement was continued until the final purchase by the Railroad Company, in 1920, of the effects of the Bridge Company, including the structure under consideration.

The condition of the three river spans at this point was such that, immediately upon the acquisition of the structure by the Railroad Company, it was deemed necessary to take prompt steps toward their renewal. These spans were each 172 feet in length, and it is believed were the longest Howe trusses carrying railroad traffic in the eastern part of the United States, if not in the entire country.

This reconstruction was in the general charge of H. A. Lane, chief engineer, and under the immediate supervision of the writer. The field work was in charge of A. C. Clarke, district engineer.



Foxburg Bridge—View from east end immediately after rolling operation on August 21, showing new east span in final position

The Local Agent—the Important Position He Occupies in the Railroad Organization

Watch How He is Lining up Business on the Cleveland Division

THE real railroad agent, whether he is a handler of tickets, baggage, or freight, or a combination of all three, is a live wire. He is to the railroad what the man in the first line trenches is to the army; he is the point of contact between his company and the shipping and travelling public.

As the manufacturer is judged by the kind of salesmen that he sends out, so is the railroad judged by the man who represents it, the agent. A part of a salesman's "stock in trade" is his geniality, his ability to make friends of his prospective customers. Some of the biggest business deals that have ever been "put over" have been made not by some stroke of genius, nor by any streak of luck, but through the winning personality of a good natured salesman. In the same manner, the local agent may find himself to be one of the most important cogs in the wheels of the railroad's progress. He is in a better position to either make or break his company than perhaps any other person. He can make friends or enemies; he can get business or lose it; he can add to or subtract from the railroad's revenue.

"John Jones" to the Rescue

Recently it happened, as it does happen about three times a minute, that the telephone bell in a certain ticket office was doing double duty. The assistant agent, a new man, picked up the receiver.

"Hello," he *said* (for that is the only way to express what he did), languidly.

"Is this the Blank Ticket Office?" asked a woman's voice, as she gave the name of a ticket office of a competitive railroad.

"No!" This time the new agent was awake. He was angry, or he was provoked, or people interrupted his work, or something was the matter; whatever it was that had happened to him, he forgot the big part that he played in the railroad game.

"Oh," came back the voice, "I thought this was Blank's office. Can you tell me their number? I could'nt find the telephone book and the operator gave me the wrong . . . "

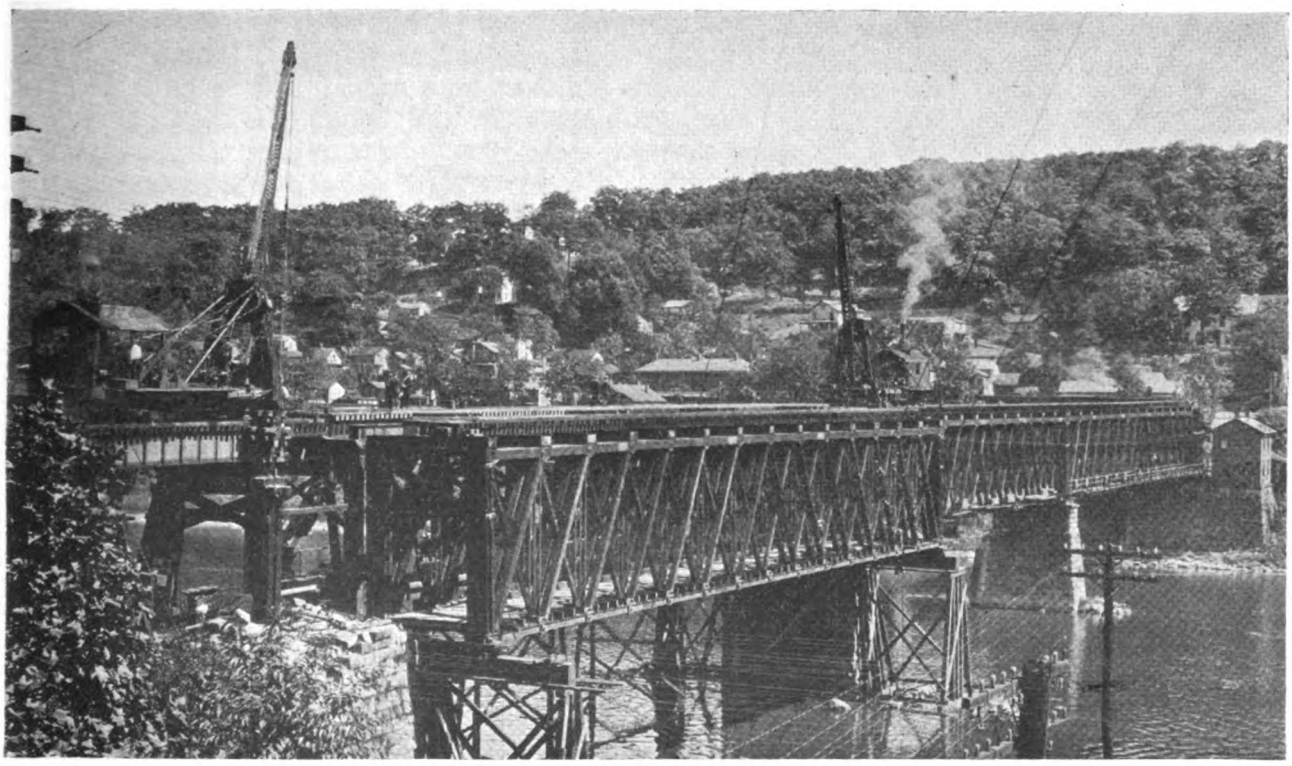
"W-a-i-t a m-o——m-ent," the new assistant agent was plainly bored. At this moment Jones came in to relieve him. "Here, Jones, this lady wants to know Blank's number. Do you know what it is without looking it up in the book?" Jones picked up the receiver quickly.

"I can tell you their number," he said pleasantly to the woman, "but perhaps we can even save you the trouble of making another call. This is Mr. Jones, of the Baltimore and Ohio. If it's a matter of transportation, I can guarantee you a safe and pleasant trip over our Road. Can't we be of service to you?"

Do you wonder that John Jones got the "customer?" Do you wonder that two hours later found the little lady at the window of the ticket office, asking for Mr. Jones? And is there any doubt where the "trade" might have gone if there had been no John Jones?

We Need More "John Joneses"

Our Traffic Department now has a campaign afoot whereby it hopes to establish the fact that there are John Joneses in the persons of all of our local agents. It is a sort of brotherly Get-Together-With-The-Agents campaign, that is destined to touch every agent on the System. Its purpose is to set before him the importance of his position. It is impossible for superintendents and other officers to get in touch with prospective patrons as they would like to do, but this is something which can be done by the agent, and it is a feature of this campaign to show him the importance of his getting out and making friends for the Railroad, of getting the cooperation of the public by advertising the features of our good service; of look-



Foxburg Bridge—General view of structure from east end, after conclusion of rolling operation, August 21, showing old span in rolled-out position on falsework, and new span in place

Engineering News-Record

A Consolidation of Engineering News and Engineering Record

A JOURNAL OF CIVIL ENGINEERING AND CONSTRUCTION

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McGRAW-HILL COMPANY, INC.
10TH AVENUE AT 36TH STREET
NEW YORK

Long Howe-Truss Railway Spans Being Replaced

New Double-Deck Steel Bridge of Three 173½-Ft. Spans Being Built Over Allegheny by Baltimore & Ohio

WHAT are believed to be the longest Howe-truss spans carrying railway traffic in the eastern part of the United States, if not in the entire country, are being replaced by a new steel structure. Shown in Fig. 1 herewith, the present bridge of the Baltimore & Ohio

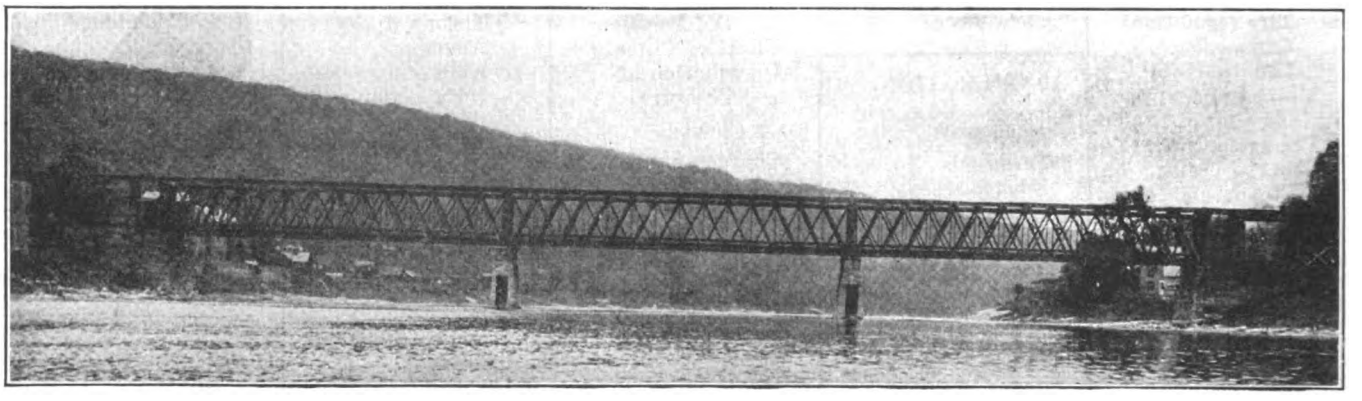

FIG. 1. DOUBLE-DECK HOWE-TRUSS BRIDGE CARRYING RAILWAY TRAFFIC

R.R. over the Allegheny River at Foxburg, Pa., consisting of three spans 174 ft. 10 in. long center to center of end bearings. Double-deck steel spans of the general construction shown in Fig. 2 are being erected alongside, to be rolled to place. On Aug. 21 the east span was rolled in, displacing the corresponding old one, without interrupting the train schedule. They are designed for E-50 loading, have a length of 173½ ft. center to center of end pins, are 23 ft. deep between chord centers and consist each of eight web panels.

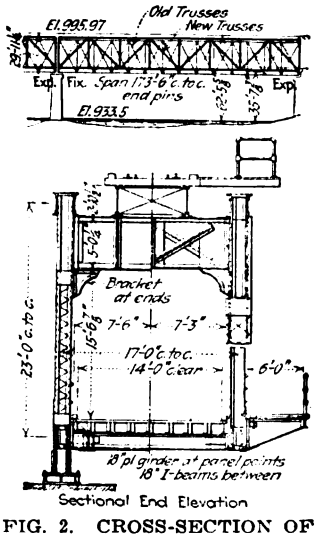

FIG. 2. CROSS-SECTION OF NEW FOXBURG BRIDGE

Originally the Foxburg bridge carried a narrow-gage line of the Pittsburgh & Western R.R.; it was built in 1872 and consisted of three double-deck timber Howe trusses, with the railroad on the top chord and the highway on the bottom chord. It was reconstructed, of similar type, in 1908. Four years later, when the line was changed to standard gage, it was necessary to provide increased carrying capacity, and the timber bottom chord was replaced by four lines of 12-in. 40-lb. I-beams. Until last year the bridge was used by the railroad on a toll basis. The railroad purchased the bridge in 1920 and plans were made for the replacement. Work is now being carried out by the Bethlehem Steel Bridge Co., with J. F. Ritter in charge on the ground. For the railroad, construction is under H. A. Lane, chief engineer, and is under the immediate supervision of P. G. Lang, Jr., engineer of bridges, field work being in charge of A. C. Clarke, district engineer.

Court Gives City Right to Take Utility Properties

A DECISION affecting the right of municipalities in acquiring properties of public utilities by eminent domain proceedings was recently handed down by the U. S. District Court for the Northern District of California, Southern Division. The case was that of the City of Los Angeles vs. The Southern Sierras Power Co. and the ruling of the court, applying the theory of higher use, allows the city to take certain of the company's hydro-electric properties over the protest of the company. The company has appealed to the U. S. Circuit Court of Appeals by a suit for a writ of error. A resume of the case as prepared by one of the company's engineers follows:

The Southern Sierras Power Co. is a public utility corporation operating under the jurisdiction of the California Railroad Commission. For many years it has generated and supplied hydro-electric power to seven counties in the southwest portion of the state, many sections of which are dependent upon this company as the only available source of hydro-electric power. The combined system of The Southern Sierras Power Co. and its related company, The Nevada California Power Co., includes eight hydro-electric generating plants and about 800 miles of high tension lines. No part of the system, however, comes within 40 miles of the city of Los Angeles, nor is the company's service devoted to the Los Angeles district.

The Southern Sierras Power Co. acquired from the Mono Power Co. 320 acres of land through which the Owens River flows in the so-called Owens River Gorge. In crossing this parcel of land, the stream drops 421 ft., thus affording a favorable opportunity for the development of hydro-electric power. Immediately upon acquiring the property the company began the construction of a power plant to be added to its existing generating and transmission system. Subsequent to this the city of Los Angeles instituted proceedings in eminent domain to secure the right to all of the water flowing through the 320 acres of land purchased from the Mono Power Co., together with a right of way for a tunnel through that property. The city had conflicting plans for development which would completely by-pass the company's plant. The property in question is located more than 300 miles from the city of Los Angeles and is more remote than are many other units of a comprehensive power development plan proposed by the city which includes unfinished power plants along the Los Angeles aqueduct.