Description.

This structure is located on the line of the Pennsylvania Railroad five and a half miles north of Harrisburg, and crosses the river Susquehanna at an angle of $68\frac{1}{4}^\circ$ with the general direction of the stream. It is supported on 22 piers and 2 abutments. The piers are founded upon cribs, which is the usual method of building in the Susquehanna, and experience has proved it to be perfectly secure, no instance having ever occurred, so far as the information of the writer extends, of the failure of a crib foundation in this river. The cribs of the Pennsylvania Railroad Viaduct consist generally of only one course of timber, $12 \times 12$, framed sufficiently wide to extend 2 feet beyond the line of the regular masonry, and sunk sufficiently low to be at least six inches below the surface of extreme low water. The timbers are connected by cross-pieces dovetailed into them. The compartments of the cribs between the cross-pieces are filled with large and small stone, laid compactly without mortar to a level with the upper surface of the crib; upon this is placed the foundation course of the masonry, consisting of very large stones from 20 to 24 inches high, forming a regular course upon which the cement masonry is commenced with an offset of 6 inches.