SHERMAN'S CREEK BRIDGE.—PENN. CENTRAL RAILROAD. (Plate 7.)

This structure, in the general appearance of the elevation of the side-truss, bears some resemblance to a Burr Bridge, but it possesses several peculiarities.

1. The truss is double, consisting of three rows of top and bottom chords, and two sets of posts and braces.

2. The truss is counter-braced by inch rods, placed between the braces, and running in nearly a parallel direction. These rods pass through bolster-pieces, placed behind the posts on the top and bottom chords.

3. The panels increase in width from the ends towards the middle of the spans. The first panels are 9 feet 1½ inches from centre to centre of posts.

The middle panels 12 feet 1½ inches.

The bridge consists of 2 spans, each 148 feet 3 inches from skew-back to skew-back, or 154 feet 6 inches from middle of pier to end of truss. The pier is 3 feet 2 inches on top, and 6 feet at skew-backs.

The foundation of the pier presented some peculiarities in its mode of construction. Great difficulties were apprehended in consequence of an opinion, based upon information given by residents in the vicinity of the work, that the rock was at a great depth, and was covered by a deposit consisting of the ruins of an old dam. As the rock could not be reached by sounding, before the excavations were commenced, in consequence of the large stones which were scattered through the gravel, it was concluded to make use of a crib, consisting of timbers solidly and compactly framed together without leaving space between. The timbers of one course lie in immediate contact with those of the next, and the whole are bolted together with iron rods. The intention was to make use of this as the frame of a coffer-dam, if it was found possible to reach the rock, and keep out the water; if not, to use it as an ordinary crib, and fill it with rough stones.