Upon the suspension rods at ends, \( 5224 \text{ lbs. sq. in} \)
- upper chord, \( 613 \) "
- lower chord, \( 334 \) "
- arch in centre, \( 543 \) "
- " at skew-back, \( 627 \) "

COVE RUN VIADUCT. (Plate 3.)

This design was prepared for a bridge across Cove Run, on the Pennsylvania Railroad, but in consequence of peculiarities of location, another plan was submitted; it is inserted here in consequence of its simplicity.

Description.

The span is 50 feet from skew-back to skew-back.
Width from out to out, 9 feet.
Height of truss from out to out, 10 feet.
Number of trusses, 2.
The upper chord is a single timber, 12 \( \times \) 12, of white pine.
The posts are of locust, 6 \( \times \) 6, supporting the upper chord.
The arches are composed of rolled plates; each arch consists of 8 plates, 2 \( \times \frac{3}{4} \), with a space in the middle of two inches, the upper and lower portions being separated by blocks of cast-iron. The lower chord is of rolled iron, and is designed not to resist the thrust of the arch, but to connect the system of counter-bracing.
The lateral braces are of wood, supported by angle-blocks of cast-iron, and connected by rods \( \frac{3}{8} \) inch in diameter. The counter-brace rods are one inch diameter, passing through angle-blocks on the upper chord, and connected with the lower chord by means of eyes passing around the lower lateral brace rods.