



Kentucky River Bridge.

VII.

During the trials it was found that the longitudinal motion of the tenon where the lower chord was cut was $1\frac{1}{2}$ inch. This is suggestive when applied to the consideration of the character of the strains in the web system of a continuous girder at the point of contraflexure.

The enormous proportions of this great viaduct can best be appreciated from the following table of dimensions and quantities :

Length between abutments.....	1,138.00 ft.
" of each span.....	375.00 "
Depth of truss.....	37.50 "
Width " ".....	18.00 "
Height of rail above low water.....	275.50 "
" " " river bed.....	279.50 "
" " " pier base.....	286.10 "
Total height of iron work.....	214.75 "
" " " masonry.....	71.25 "
Stone pier at base.....	120×42 "
Iron " ".....	71.5×28 "
Iron " " top.....	18.0×1.0 "
Iron in spans.....	2,855,379 lbs.
" " " piers.....	798,901 "
Cubic yards of masonry.....	12,635 "
" " " foundation excavation.....	14,665 "
Flood rise of river.....	57 ft.

The iron work of this bridge was manufactured by the Edgemoor Iron Company, of Wilmington, Del., and is said by those who have had abundant opportunity to know to be superior to that of any other iron bridge in the country. The parts, it is said, went together like a spring-field musket.

The whole work was carried out very successfully, and reflects great credit upon the engineer, Mr. C. Shaler Smith, who designed the work, and the Baltimore Bridge Company, which executed it.

- No. 15. Looking through interior of finished Bridge, from south side.
 No. 16. Perspective view of finished Bridge from south side.
 No. 17. Perspective view of finished Bridge through Towers.
 No. 18. Finished Bridge from mouth of Dix River.

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