

*J. G. Henszey,
Truss Bridge.*

No. 91,745.

Patented June 22, 1869.

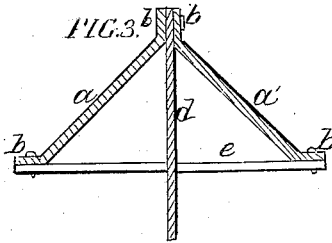
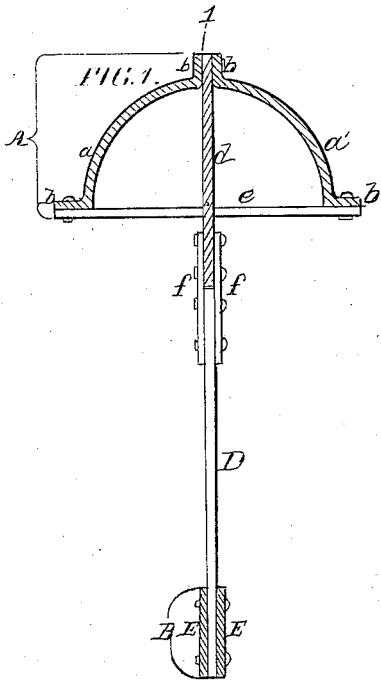
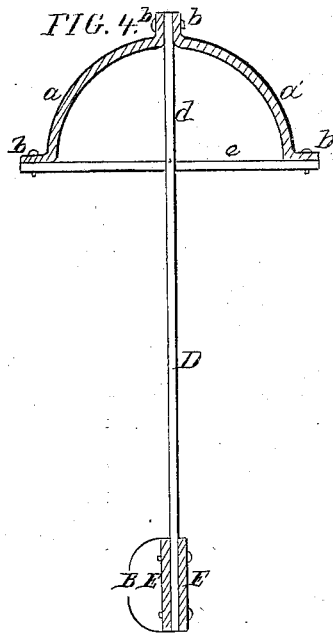
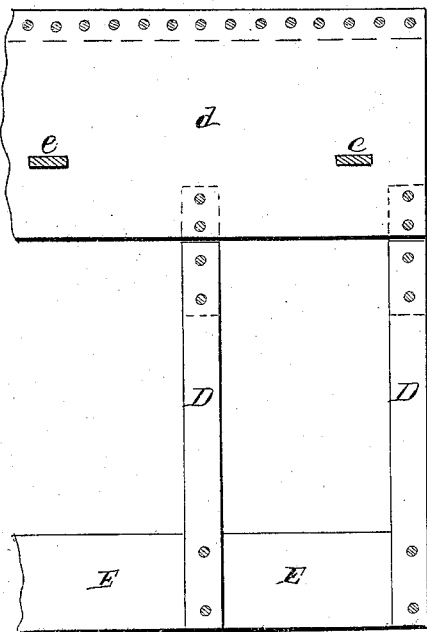


FIG. 2.



Witnesses *Mr. A. Steub*
Geo. B. Harding

J. G. Henszey
by his Atty
H. Howard

United States Patent Office.

JOSEPH G. HENSZEY, OF PHILADELPHIA, PENNSYLVANIA.

Letters Patent No. 91,745, dated June 22, 1869.

IMPROVED BRIDGE.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, JOSEPH G. HENSZEY, of Philadelphia, Pennsylvania, have invented certain Improvements in Bridges; and I do hereby declare the following to be a full, clear, and exact description of the same.

My invention consists—

First, of certain bars of rolled iron, arranged and secured together substantially in the manner described hereafter; so as to form a light and simple, but rigid upper chord for a bridge.

Second, in combining with the said upper chord certain suspension-rods and longitudinal bars, forming the lower chord, as fully explained hereafter.

In order to enable others skilled in the art to make and use my invention, I will now proceed to describe its construction and operation, reference being had to the accompanying drawing, which forms a part of this specification, and in which—

Figure 1 represents a transverse section of a portion of my improved bridge;

Figure 2, a longitudinal section on the line 1-2, fig. 1.

Figure 3, a transverse section illustrating a modification of my invention; and

Figure 4, another modification.

A is the upper arched chord of the bridge; and B, the straight lower chord of the same.

The upper chord, as shown in figs. 1, 2, and 3, consists of continuous bars *a* and *a'*, and *d*, and transverse rods, *e*, all of wrought-iron.

The bars *a* and *a'* are rolled to the segmental form shown in fig. 1, or they may be straight, as shown in fig. 3, but in either case they are provided on both edges with flanges *b*. The bar *d* is secured at the upper edge, between the upper flanges of the bars *a* and *a'*, by bolts or rivets, as shown in the drawing, and the said bars *a* and *a'*, are connected together at their lower edges by transverse rods *e*, which are arranged at intervals, and pass through slots in the bar *d*.

D D are the suspension-rods, each of which consists of a flat bar, the upper edge of which is in contact, or nearly so, with the lower edge of the bar *d*, and is connected to the latter by splicing-strips *f f*, and bolts or rivets, as shown in fig. 1, the lower end of the suspension-rod passing between the longitudinal bars E E, of the lower chord, to which it is also secured by bolts or rivets.

The bars *a*, *a'*, and *d*, arranged and secured together in the manner described, constitute of themselves a light, but rigid and substantial guide, from which to suspend the roadway of the bridge, the suspension-rods and the longitudinal rods of the lower chord, on which rest the transverse beams of the roadway, being also of the simplest character, while every facility is afforded for securing the whole together by ordinary bolts or rivets.

In bridges of the lighter class, the bar *d* may be dispensed with, and the suspension-rods may pass upwards between the bars *a* and *a'*, and may be secured to the same by bolts or rivets, as shown in fig. 4.

Without confining myself to any specific form of the rolled bars *a* and *a'*,

I claim as my invention, and desire to secure by Letters Patent—

1. The upper chord, consisting of the flanged bars *a* and *a'*, with or without the bar *d*, and transverse rods, *e*, arranged and secured together, substantially in the manner and for the purpose described.

2. In combination with the above, the suspension-rods D, and longitudinal bars E E of the lower chord.

In testimony whereof, I have signed my name to this specification, in the presence of two subscribing witnesses.

JOSEPH G. HENSZEY.

Witnesses:

JOHN WHITE,
HARRY SMITH.