

T. W. H. Moseley
Truss Bridge.

No. 59,054.

Patented Oct. 23, 1866

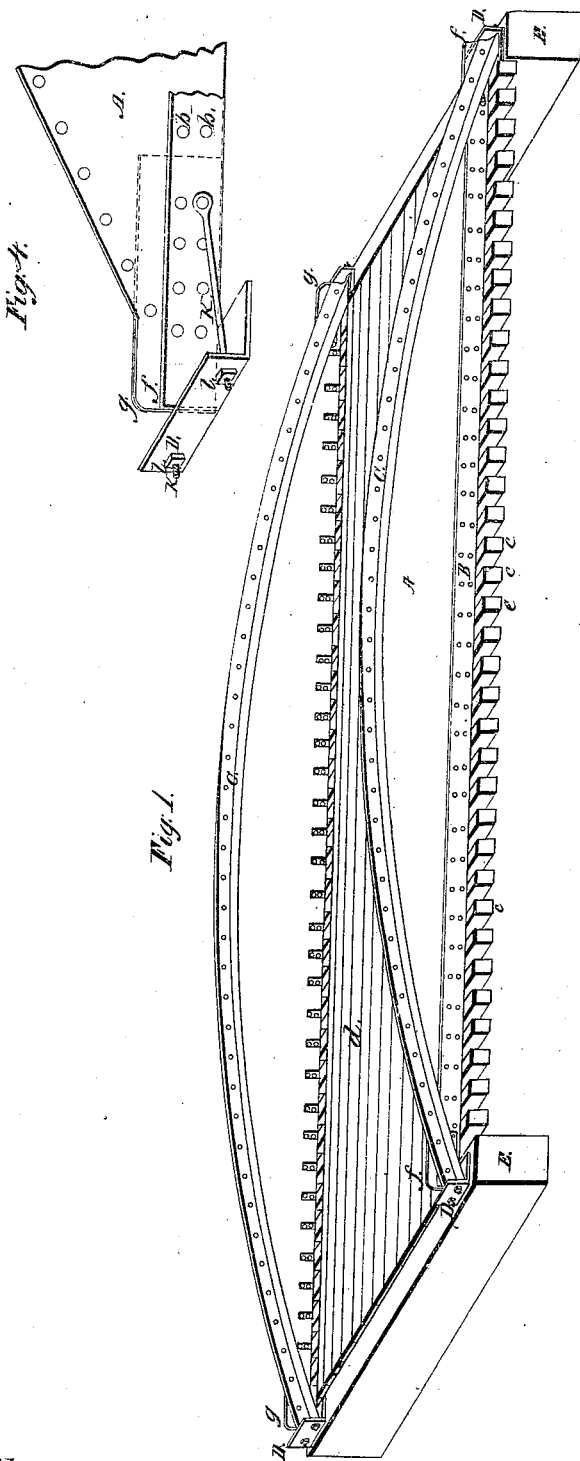


Fig. 1.

Fig. 4.

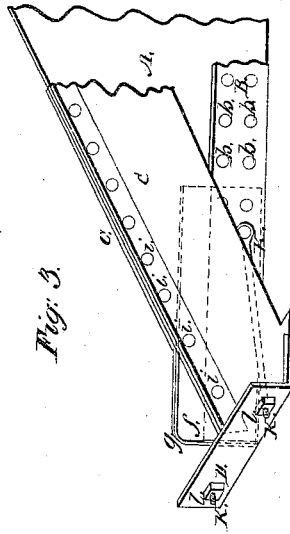
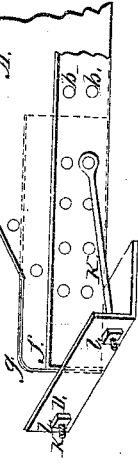


Fig. 3.

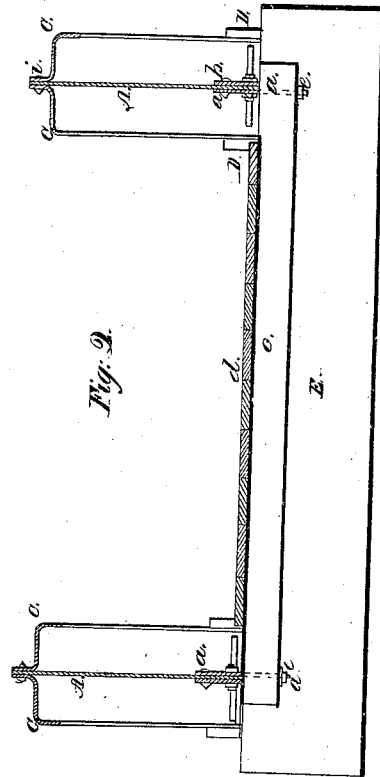


Fig. 2.

Witnesses
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UNITED STATES PATENT OFFICE.

THOMAS W. H. MOSELEY, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN BRIDGES.

Specification forming part of Letters Patent No. 59,054, dated October 23, 1866.

To all whom it may concern:

Be it known that I, THOMAS W. H. MOSELEY, of Boston, in the county of Suffolk and State of Massachusetts, have invented a new and useful Improvement in Wrought-Iron Trusses for Bridges; and I do hereby declare the same to be fully described in the following specification and represented in the accompanying drawings, of which—

Figure 1 is a perspective view of a bridge-span made with two of my improved trusses. Fig. 2 is a transverse section of it. Fig. 3 is a perspective representation of one end of the truss, with its shoe and the adjusting-rods and nuts applied thereto. Fig. 4 is another end view of the truss, without the flange-plates.

In the drawings, A denotes a girder, to be made of plate-iron, and to have the form of the segment of a circle or an ellipse, or an approximation thereto. A long strip of metal, B, which I term the "chord," is laid along the chord of the said girder, and connected thereto by bolts *b b b* going through the two, and a series of hangers, *a a a*, arranged against the inner face of the girder and projecting below it. In the formation of a bridge these hangers go down through the series of floor-timbers *c c c*, which connect the trusses of the span, and serve to support the flooring-planks *d*, the floor-timbers being held in connection with the hangers by screws and nuts applied to the lower ends of such hangers, they being shown at *e e* in Fig. 2.

To projecting parts *f f*, at the ends of the arched-plate girder A, rectangular strengthening-plates *g g* are riveted, the said plates being placed flatwise against the girder-plate. There is also riveted to each side of the arched girder and along its arc an angle-iron flange, C,

shaped in cross-section as represented in Fig. 2, the rivets for holding the flanges to the girder being shown at *i i* in Figs. 2 and 3.

At each toe or end of the truss is a shoe, D, consisting of a sheet of plate-metal bent at a right angle. These shoes rest on the abutments or pieces E E, and each is secured to the truss by two bolts, *k k*, which are connected to the truss, and extend from it in opposite directions, at acute angles with it, and go through the vertical part of the shoe and terminate in screws, on which nuts *l l* are screwed. These bolts, with their screws and nuts, besides serving to secure the shoes to the truss, answer another purpose—viz., as means of adjusting the truss, or springing or drawing it laterally (more or less) in either direction, as circumstances may require.

A truss made of thin plate-iron, and in manner as above described, has been found to possess great strength and stability, and it can be constructed at very little expense in comparison to what is frequently expended for trusses of a like span.

I claim as my invention—

1. The improved truss, as composed of the arched plate A, the chord B, and the flanges C C, or the same and the end strengthening-plates *g g*.
2. The combination of the shoes D D, and their adjusting screw-bolts *k k* and nuts *l l*, with the truss made of the arched plate A, the chord B, and the flanges C C, or the same and the strengthening-plates *g g*, the whole being arranged substantially as described.

THOS. W. H. MOSELEY.

Witnesses:

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