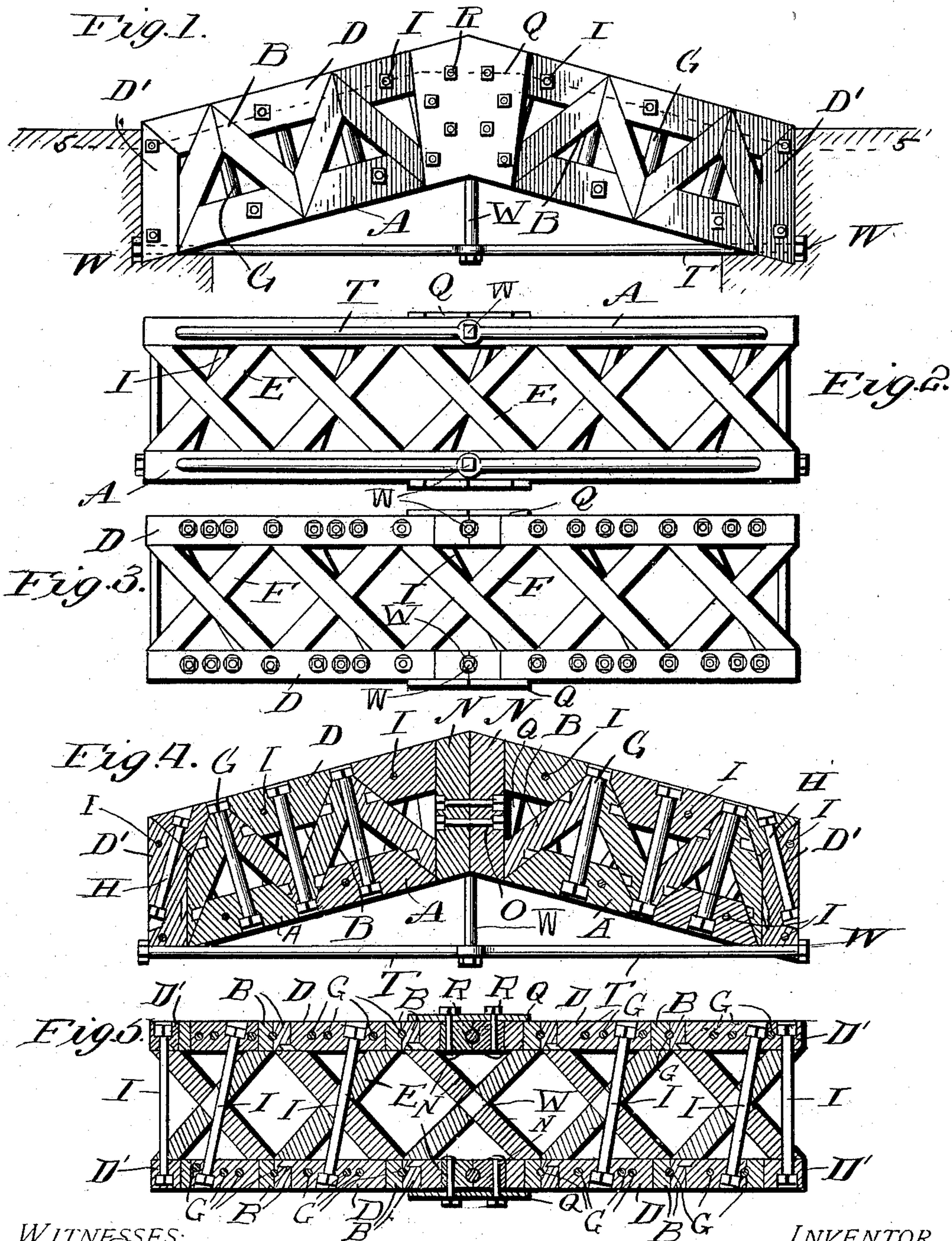


No. 750,475.

PATENTED JAN. 26, 1904.

J. F. MORTON.
CONSTRUCTION OF BRIDGES.
APPLICATION FILED MAY 7, 1903.

NO MODEL.



WITNESSES:

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JOHN F. MORTON, OF ST. LOUIS, MISSOURI, ASSIGNOR OF ONE-HALF TO
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CONSTRUCTION OF BRIDGES.

SPECIFICATION forming part of Letters Patent No. 750,475, dated January 26, 1904.

Application filed May 7, 1903. Serial No. 156,060. (No model.)

To all whom it may concern:

Be it known that I, JOHN F. MORTON, a citizen of the United States, residing at St. Louis, in the State of Missouri, have invented certain
5 new and useful Improvements in Construction of Bridges; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and
10 use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to new and useful improvements in the construction of bridges, and in carrying out the present invention it is my aim to generally improve upon the construction of bridge upon which I have been granted Letters Patent in the United States No.
15 725,753, and comprises a construction of truss-bridge in which two sections are disposed at an angle to each other and securely bolted together at their meeting ends and their opposite ends are adapted to bear against and be
20 supported by suitable piers.

The invention consists, further, in various details of construction and combinations and arrangements of parts, which will be hereinafter fully described and then specifically defined in the appended claim.
25

My invention is illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of my improved construction of bridge. Fig. 2 is a bottom
35 plan view. Fig. 3 is a top plan view. Fig. 4 is a sectional view vertically through one side of the bridge. Fig. 5 is a sectional view taken on line 5 5 of Fig. 1.

Reference now being had to the details of the drawings by letter, A A designate a series of brace-blocks having their ends connected to brace-blocks B by mortise-and-tenon joints, said blocks B being at angles to one another, as shown clearly in the drawings.

45 DD designate brace-blocks of a series which is parallel to the series of blocks A and arranged opposite the meeting ends of the blocks B in a similar manner as above described of blocks A and B. At the outer ends of each

series of beams or blocks B and D are secured 50 the vertical beams D'.

Referring to Fig. 2 of the drawings, it will be observed that the cross-beams F are fastened to the series of beams A and intersect one another at right angles, each beam F being recessed on adjacent faces to receive one
55 another in such a manner that their upper and lower faces when fastened to the series of beams A will be flush.

The top of the bridge is made up of cross-
60 beams E, which are similar in construction to the beams F and, intersecting each other in pairs, have their ends connected to the blocks D. Bolts G are passed through registering grooves in the meeting ends of the beams
65 B and also through the blocks A, the ends of the bolts being preferably countersunk and adapted to hold the parts securely together, while reinforcing-bolts H are passed through the end beams D and the adjacent vertical beams in order to securely hold the same
70 together. Bolts I are passed transversely through the beams D' and serve to hold the sides of the bridge from spreading.

The two sections of the bridge thus described
75 have vertical beams N, which are secured together by means of bolts O, and metallic plates Q are fastened to said vertical beams N and are secured together by means of bolts R, which
80 pass from one side of the girder to the other. Truss-rods T are horizontally disposed and fastened through the ends of the bridge-section, and bolts W are fastened to said truss-rods and are anchored at their upper ends to the vertical meeting beams of the bridge.
85

By the provision of the construction of bridge illustrated it will be observed that the various beams cooperate in equalizing the strain in different directions and the whole forming a compact arrangement of structure
90 in which the weight of the bridge is supported upon the ends by the angled arrangement of the two sections.

While I have shown a particular construction of bridge, it will be understood that I may
95 make alterations in the details of the same without departing from the spirit of the invention.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

5 A bridge made up of two inclined sections, each section comprising two series of beams obliquely disposed in vertical planes, mortised together at angles to one another, parallel series of beams mortised to the meeting ends of said series which are disposed at vertical
10 planes, two series of intersecting cross-brace beams parallel with each other and mortised to said parallel series of beams, bolts holding the beams together, vertically-disposed meet-

ing beams fastened to each section and bolted together, plates bolted to said meeting beams 15 and to each other, a truss-rod connecting the outer ends of the sections, and a rod fastened to said truss-rod and engaging said meeting beams, as shown and described.

In testimony whereof I hereunto affix my 20 signature in presence of two witnesses.

JOHN F. MORTON.

Witnesses:

DOSS DUNLAP,
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