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PATENTED OCT. 30, 1906.

J. INMAN.  
TRUSS BRIDGE.

APPLICATION FILED AUG. 4, 1905.

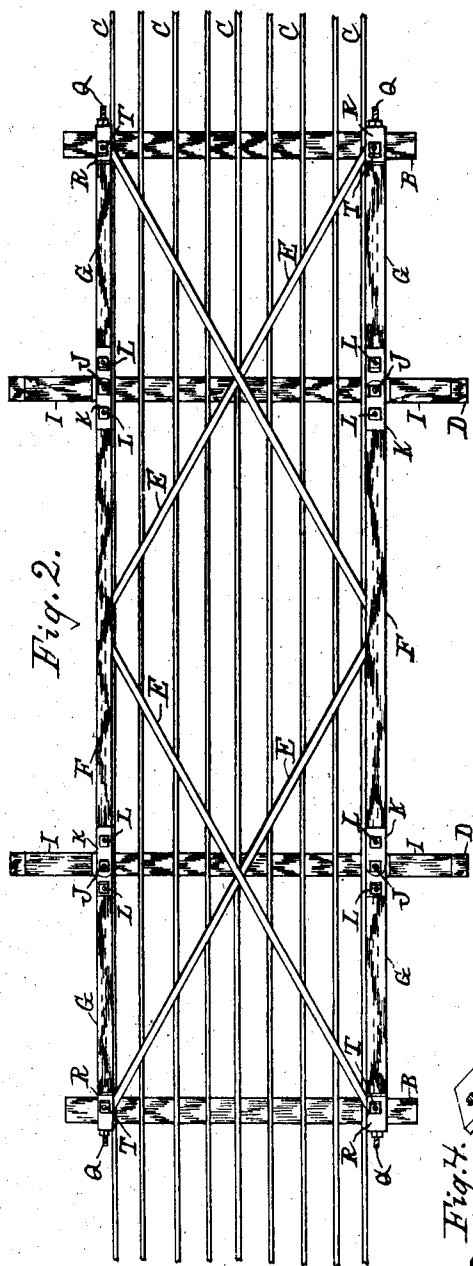


Fig. 2.

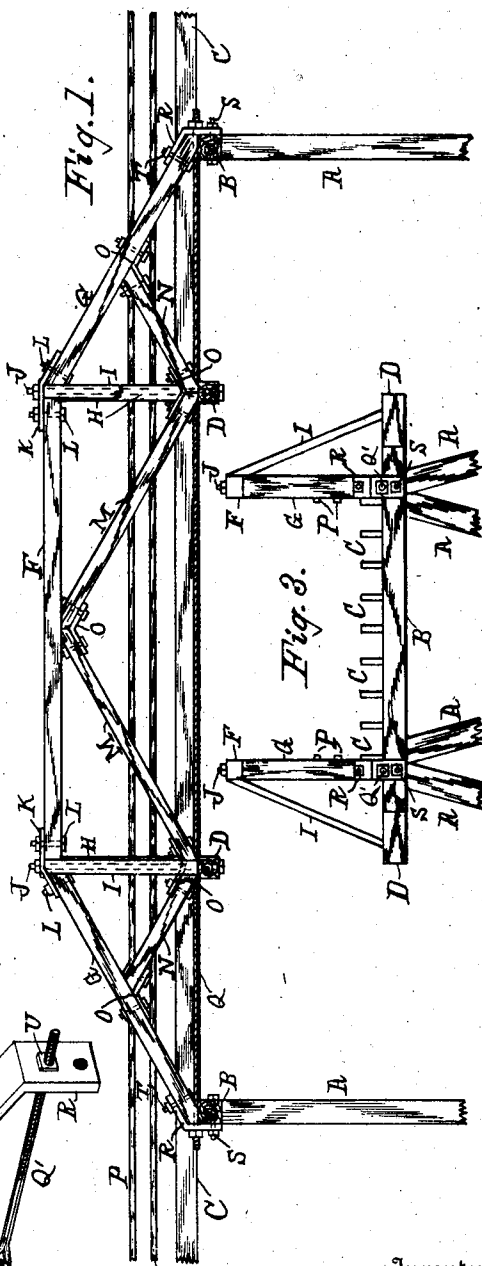


Fig. 1.

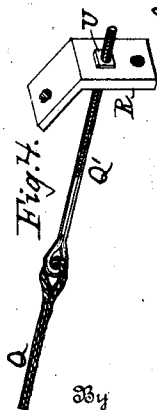


Fig. 4.

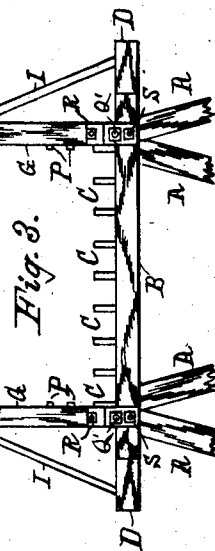


Fig. 3.

Witnesses

J. P. Geran.  
J. P. Dederick

Inventor

Joseph Inman.  
J. P. Dederick

Attorney

# UNITED STATES PATENT OFFICE.

JOSEPH INMAN, OF SHERMAN, TEXAS.

## TRUSS-BRIDGE.

No. 834,621.

Specification of Letters Patent.

Patented Oct. 30, 1906.

Application filed August 4, 1905. Serial No. 272,633.

*To all whom it may concern:*

Be it known that I, JOSEPH INMAN, a citizen of the United States, residing at Sherman, in the county of Grayson and State of Texas, have invented certain new and useful Improvements in Truss-Bridges, of which the following is a specification.

This invention has relation to truss-bridges, and the objects and advantages of the invention, together with the novel features thereof, will hereinafter appear, and be particularly pointed out in the appended claims.

The object of the invention is to provide a bridge of this character which will be simple in construction, strong and durable in use, and comparatively inexpensive to produce.

In the accompanying drawings, Figure 1 is a side elevation of my improved bridge. Fig. 2 is a top plan view of the same. Fig. 3 is an end view of the bridge. Fig. 4 is an enlarged detail, in perspective, of the truss-cable and cuff.

Like letters of reference indicate like parts in all the figures of the drawings.

In the embodiment of my invention as illustrated in the drawings A represents opposite bents or trestles, one of which is located near each bank of the stream, chasm, or the like which the bridge is to span. They consist of a sill (not shown) firmly embedded in the earth, into which are framed four vertical posts that are also framed into a cap B. Upon these caps rest the series of chords or stringers C, that carry the floor, and they are otherwise supported by the transverse or cross-beams D, and said stringers C are braced and strengthened by crossed diagonal braces E, as clearly shown in Fig. 2.

The top chords F and braces G are suitably joined together to form a bow or arch, the ends resting upon the caps B. They are supported at each of their joints by uprights H, which are mounted upon the upper side of the transverse beams D, and the uprights H are strengthened by inclined side braces I, mounted upon the outer projecting ends of the transverse beams D. Passing through the uprights H are vertical tie-rods J, which project through openings in the transverse beams D, chords F, and also through plates K, secured upon the upper sides of the chords F and braces G at each of their joints. The plates K are otherwise secured to the chords F and braces G by the bolts L. Inclined braces M lend additional strength to the chords F,

and counter-braces N support the braces G. Angle-plates O, bolted adjacent to the ends of braces M and N, tie them securely together at their joints. Guard-rails P are provided in the usual manner.

The stringers or chords C are greatly strengthened and supported by truss rods or cables Q, which extend longitudinally with the stringers. The ends of these truss-rods pass through metal angle-plates R, secured by bolts S to caps B. They are also secured to braces G by bolts T, forming a solid footing for said brace G, and thus joined together guarding against the possibility of the bridge sagging or being carried away by high water or wind unless of sufficient force to tear away the foundation upon which the structure rests.

I show this truss rod or cable, also angle-plate, in detail in Fig. 4, in which Q represents a section of the cable having an eye formed at each end into which is welded an eyebolt Q' of sufficient length to extend within the inner side of cap B. Said eyebolt passes through angle-plates R and is threaded a considerable distance and fitted with a nut U, by turning which nut the feet of braces G are drawn together, thus forcing upward the ends of braces G, and by which process all sag may when required be removed from the stringers C.

The construction and advantages of my invention will be readily understood from the foregoing description, taken in connection with the accompanying drawings. It will be seen that I have provided a strong durable bridge which is of simple and comparatively inexpensive construction and well adapted for spanning small streams, rivers, creeks, branches, ravines, chasms, &c. When the bridge is not of great length, no bents or trestles are needed between its ends, the caps B answering as sills which when securely fastened or anchored it will be almost impossible for a flood to damage or wash the bridge away. It will be further seen that small bridges may be constructed at one point and then shipped to the desired place to be mounted.

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

1. In a truss-bridge, the combination with end beams or caps, angle-plates secured to the caps, chords or stringers mounted on the caps, transverse beams secured to the string-

ers, uprights mounted on the transverse  
beams, top chords and braces supported by  
the uprights and forming an arch, the ends  
of the braces secured to the angle-plates, in-  
clined braces disposed between the uprights,  
chords and braces, angle-plates mounted at  
the base of the uprights to which the inclined  
braces are secured, inclined side braces on  
the transverse beams engaging the uprights,  
vertical tie-rods passing through the up-  
rights, of adjustable truss-rods or cables ex-  
tending beneath the stringers and having  
their ends secured in the angle-plates on the  
caps.  
2. In a truss-bridge, the combination with  
end beams or caps, angle-plates secured to  
the caps, chords or stringers mounted on the  
caps, transverse beams secured to the string-  
ers, uprights mounted on the transverse  
beams, top chords and braces supported by

the uprights and forming an arch, the ends  
of the braces secured to the angle-plates, in-  
clined braces disposed between the uprights,  
chords and braces, angle-plates on the up-  
rights to which the chords and braces are se-  
cured, angle-plates mounted at the base of  
the uprights to which the inclined braces are  
secured, inclined side braces on the trans-  
verse beams engaging the uprights, vertical  
tie-rods passing through the uprights, of ad-  
justable truss-rods or cables extending be-  
neath the stringers and having their ends se-  
cured in the angle-plates on the caps.

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

JOSEPH A. INMAN.

Witnesses:

J. P. GEREN,  
Z. P. DEDERICK.