

(No Model.)

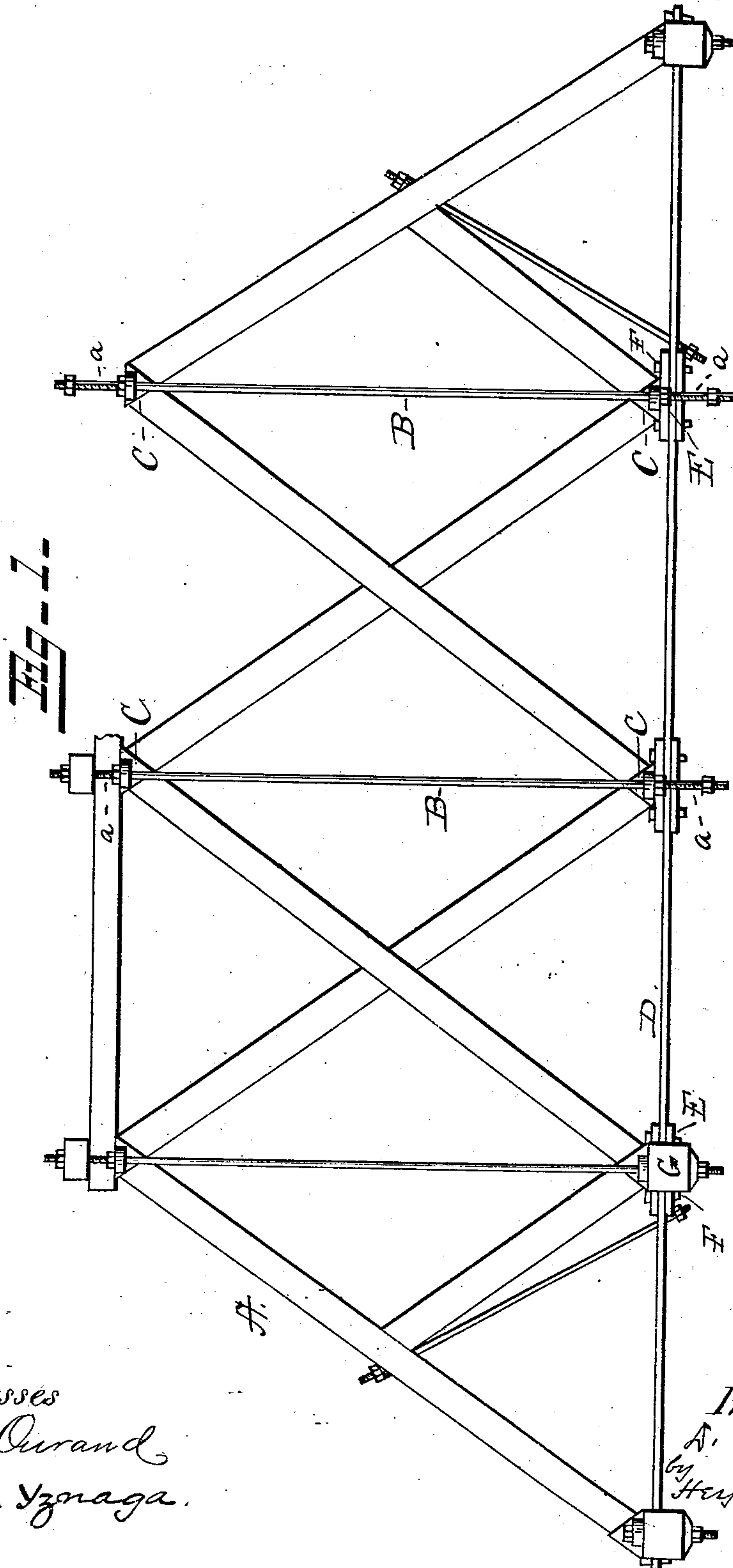
D. B. MATLOCK.

2 Sheets—Sheet 1.

TRUSS BRIDGE.

No. 272,568.

Patented Feb. 20, 1883.



Witnesses
H. L. Curand
J. M. Yznaga.

Inventor.
D. B. Matlock,
by Heylmueller & Kane,
Attorneys.

(No Model.)

2 Sheets—Sheet 2.

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Fig. 2.

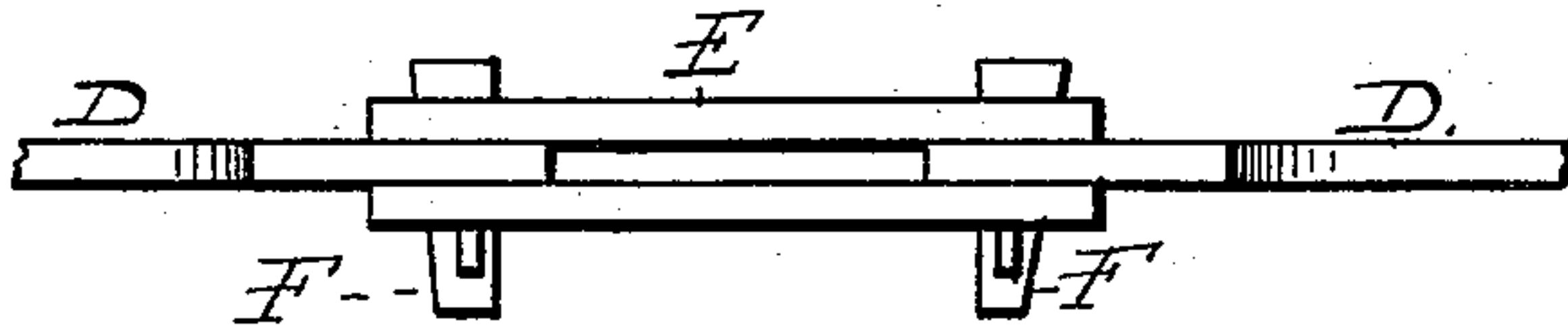


Fig. 3.

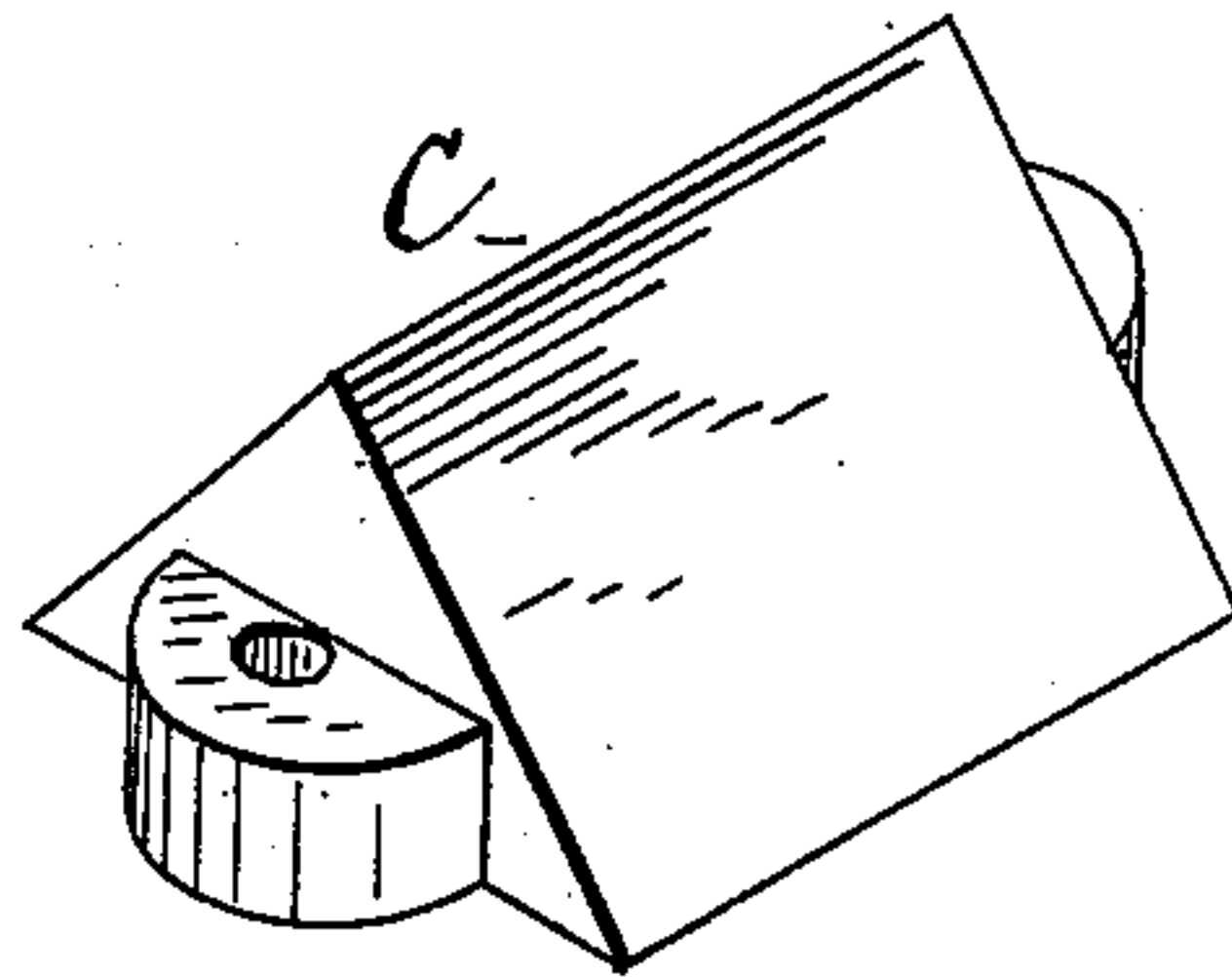


Fig. 4.



Fig. 5.

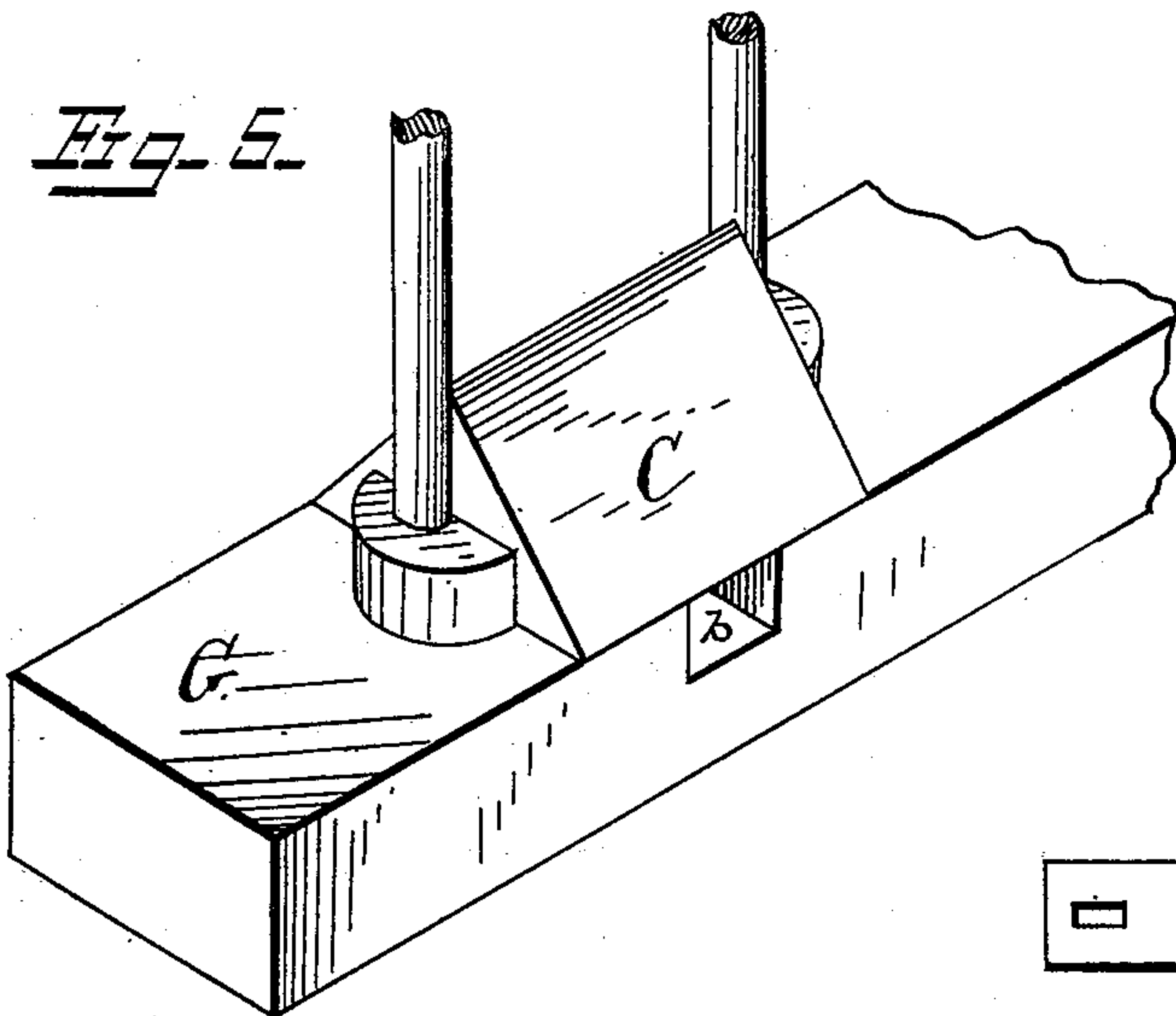
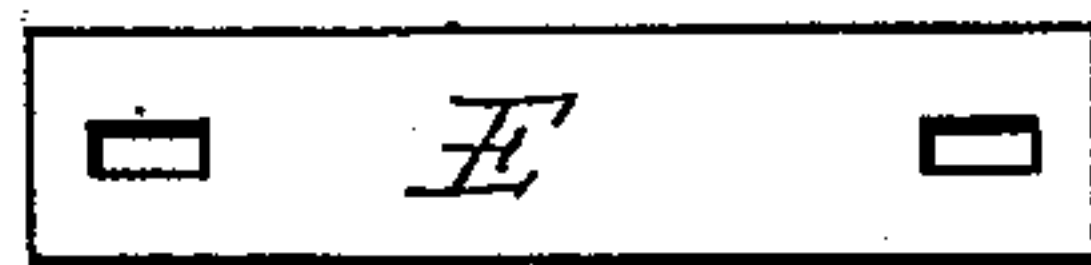


Fig. 6.



Witnesses.
H. L. Ourand
J. M. Yznaga.

Inventor.
David B. Matlock,
by Heyman & Kane,
Attorneys.

UNITED STATES PATENT OFFICE.

DAVID B. MATLOCK, OF MILLVILLE, CALIFORNIA.

TRUSS-BRIDGE.

SPECIFICATION forming part of Letters Patent No. 272,568, dated February 20, 1883.

Application filed September 1, 1882. (No model.)

To all whom it may concern:

Be it known that I, DAVID B. MATLOCK, a citizen of the United States of America, residing at Millville, in the county of Shasta and State of California, have invented certain new and useful Improvements in Truss-Bridges; and I do hereby 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 use the same.

This invention has relation to certain improvements in truss-bridges, and is especially designed to provide a secure and simple means for coupling the lower chord together, and to provide an angle-block so constructed and arranged in connection with the truss-rods that the top chord or cross-floor beam may be removed for repairs and replacement without endangering the superstructure.

My invention therefore consists in the novel construction and combination of parts, as will be hereinafter more fully set forth and claimed.

In the accompanying drawings, forming a part of this specification, Figure 1 is a side view of a section of a bridge, showing my improvement attached, with a section of top chord and some of the cross-floor beams removed. Fig. 2 is a view showing the manner of coupling the lower chord together. Fig. 3 is a view of the angle-block. Fig. 4 is a view of the truss-rod. Fig. 5 is a perspective view of the floor-beam with angle-block and truss in the floor-beam through which the lower chord passes under the angle-block, and Fig. 6 is detail view of the coupling-plates and lower chord.

The letter A is a section of a truss-bridge, a panel of which is in completed condition, and the intermediate panel shown as having the top beam and chord and floor-beams removed, the structure still being maintained by the rods and lower chord.

The letter B represents one of the truss-rods, with screw-threaded ends *a* extending far enough on the rod that the inside screw-nuts will bind the angle-plates when in position, and projecting far enough above the upper angle-plate to pass through the upper beam or girder and chords, and extending far enough below the lower angle-plate to pass through the floor-beam and receive screw-nuts to hold the beams in place.

The letter C is the angle-plate, which is formed with the usual double inclines, and provided with side ears, having holes through which the truss-rods pass and against the under side of which the inner nuts of the screw-threaded ends of the truss-rods rest.

The letter D is the lower chord, which is formed in sections with key-holes in both ends of the section. These sections are made of predetermined length, according to the distance between lower floor-beams of the bridge.

The letter E is coupling-plates having in both ends key-holes corresponding to those in the ends of the sections of the lower chord.

The letter F represents the keys employed to couple the chords and plates together.

The letter G is the floor-beams placed transversely to the line of the lower chord, and each one has cut or otherwise formed therein the groove *b* to admit the passage of the lower chord and coupling-plates. They are also provided with holes arranged and disposed to receive the truss-rods, and in the upper surface about the truss-holes they are cut out large enough and deep enough to admit freely the inner nuts on the lower ends of the truss-rods.

It will be observed that the coupling devices of the lower chord are formed and arranged so that the coupling-plates, with their key-holes, and the ends of the lower chord, with the holes registering with those in the plates, comes snugly in line with the sides of the floor-beams, in order that when the keys are driven home they will draw the plates together and find a bearing against the edges of the angle-plate and sides of the floor-beams, the projecting portion of the keys above the chord serving to retain the angle-plate in position.

It will also be seen that on the entire chord there is no screw, it being fastened together with pins or keys; also, that the floor-beams can be taken off for repairs, the structure being sustained by the bolts passing through the angle-block. In like manner the top chord or beam can be taken off. In short, the floor and floor-beams can all be taken out for repairs without building false works to sustain the bridge or allowing any of the camber to get out of the same. The extreme ends of the chord are fastened by keys or pins passing through the chord resting against the floor-beam and angle-block.

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

1. The combination, with the truss-rods of a bridge, of a floor-beam formed or provided with a transverse groove adapted to receive and retain the lower chord, and the lower chord formed of sections, substantially as and for the purpose set forth.
2. The combination, with the truss-rods of a bridge, of an angle-plate formed with side ears, a floor-beam having a transverse groove to receive the lower chord, and the lower chord, the whole arranged and united as herein set forth.
3. The combination, with the truss-rods of a bridge, of the angle-plate formed with side

ears, the floor-beams with transverse groove and mortised for screw-heads, and the lower chord composed of sections connected by plates and coupling-pins, substantially as described. 20

4. In combination with the top girder or beam and the truss-rods, the angle-block, the floor-beam with transverse groove and mortises for screw-nuts, and the lower chord composed of sections connected by plates and coupling-pins, substantially as described. 25

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

DAVID B. MATLOCK.

Witnesses:

GEO. CHAMPLIN,
P. O. SCOTT.