

H. J. HUNTER & J. RICE.

Truss-Bridges.

No. 141,056.

Patented July 22, 1873.

Fig. 1.

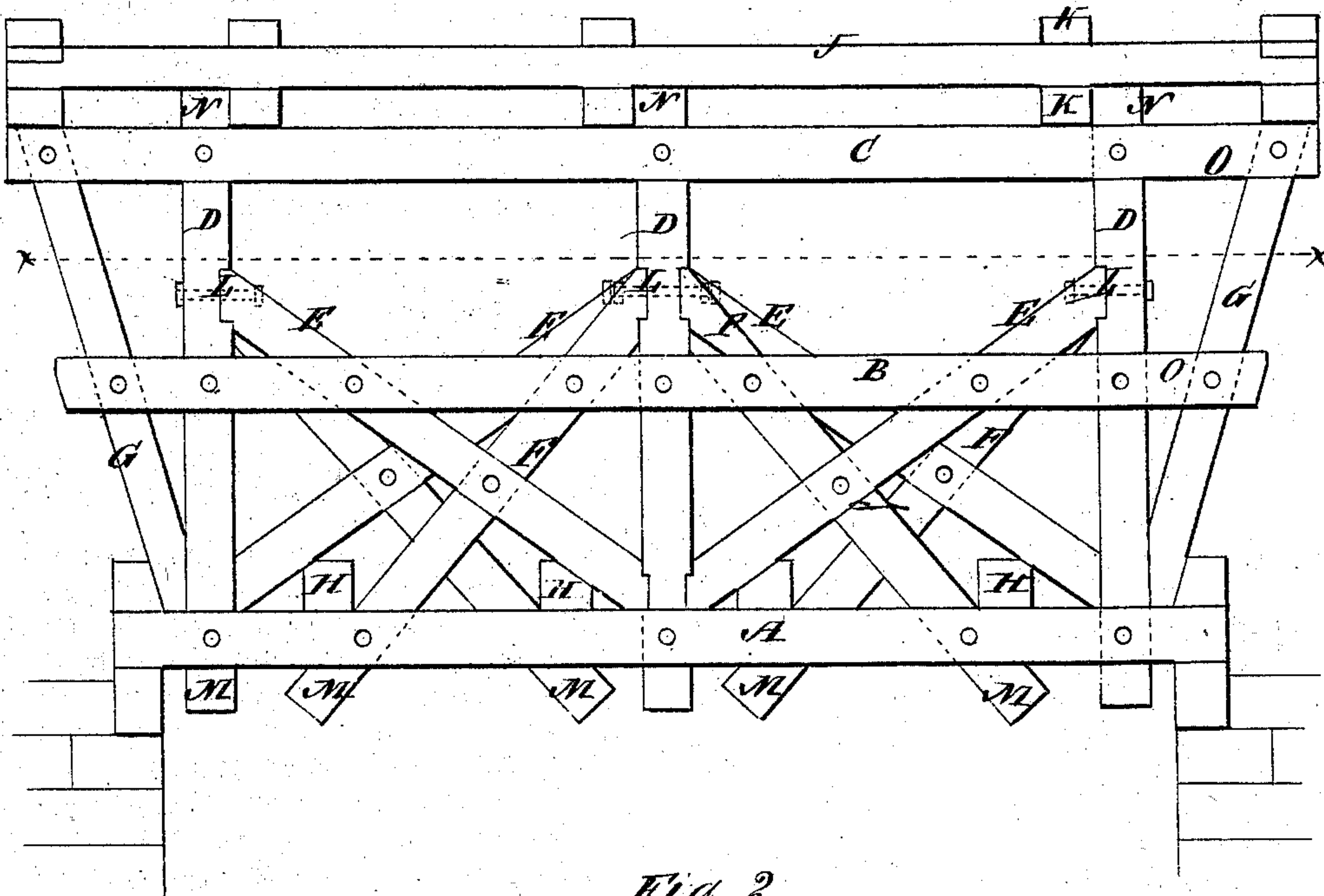
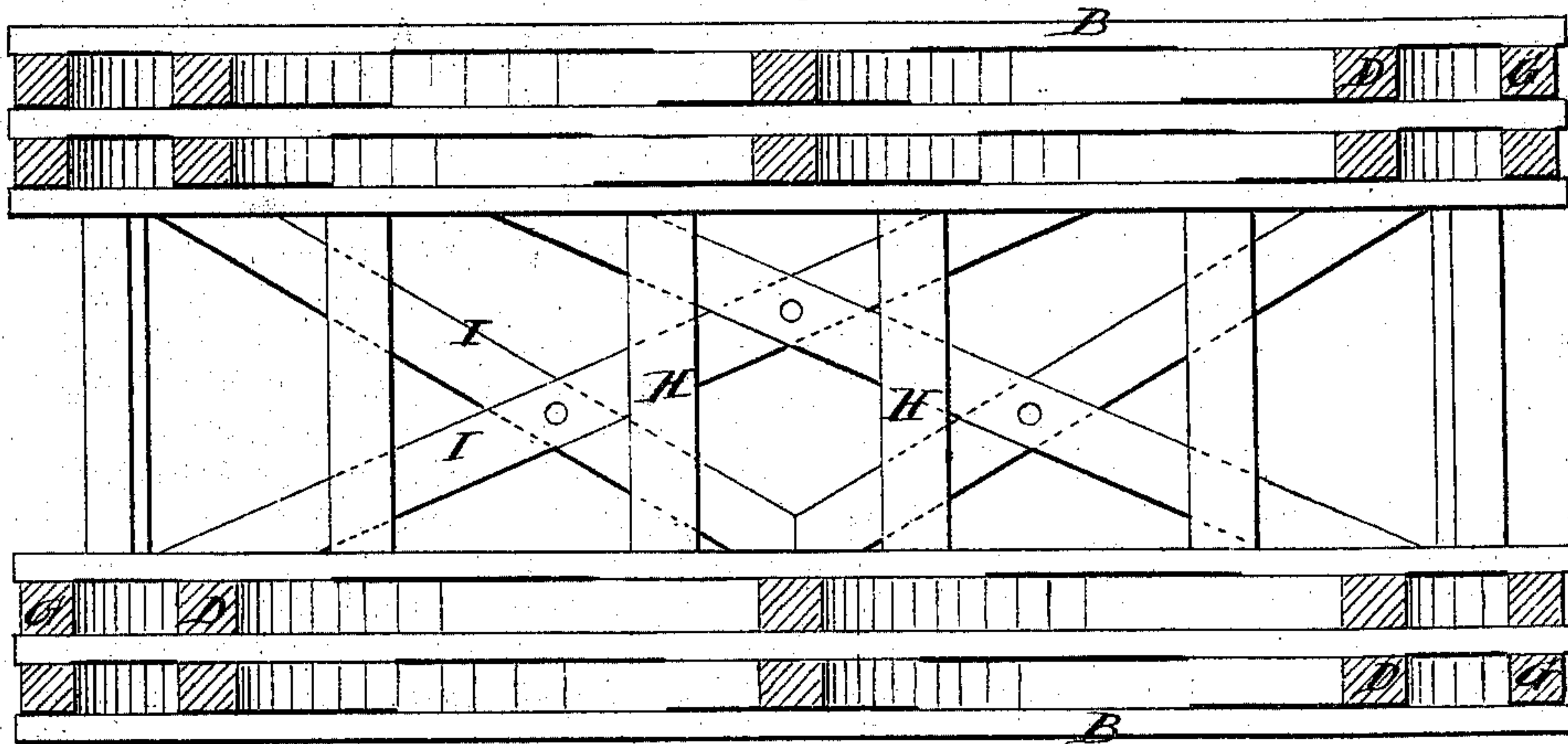


Fig. 2.



Witnesses:

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# UNITED STATES PATENT OFFICE.

HENRY J. HUNTER AND JESSE RICE, OF SCIOTO, OHIO.

## IMPROVEMENT IN TRUSS-BRIDGES.

Specification forming part of Letters Patent No. **141,056**, dated July 22, 1873; application filed June 14, 1873.

*To all whom it may concern:*

Be it known that we, HENRY J. HUNTER and JESSE RICE, of Scioto, in the county of Scioto and State of Ohio, have invented a new and useful Improvement in Bridges, of which the following is a specification:

We propose to have bottom, middle, and top chords composed of three parallel timbers, with double posts framed or boxed between the timbers of the bottom and top chords, and passing between the timbers of the middle chord without boxing, and with braces firmly secured to the posts and the bottom chord, all in a manner calculated to produce very strong frames, capable of sustaining great weight in long spans.

Figure 1 is a side elevation of our improved bridge, and Fig. 2 is a horizontal section taken on the line *xx* of Fig. 1.

A represents the bottom chords; B, the middle and C the top chords; D, the posts; E, F, and G, the braces; H, the floor-timbers; I, the diagonal floor-braces; J, the longitudinal roof-timbers; and K, the cross-timbers at the top. We make the chords of three parallel timbers and arrange the posts and braces between them, as shown in Fig. 2, in which the middle chords are seen, the timbers of which are narrow and merely fit against the sides of the posts and braces; but the bottom and top chords we make of large timbers and "box" or "halve" them together. We bolt

and box the braces to the sides of the posts very firmly, as shown at L, and extend the posts and braces F below the lower chords, as at M, to securely hold the chord against vertical strain. We also extend the posts above the top chord, in the same manner as at N. The braces E we arrange at the lower end in the angle between the posts and the bottom chords, and we extend the top and middle chords beyond the posts at the ends O, and brace them to the posts and bottom chords by the braces G.

This construction we find in practice produces a very rigid structure, well adapted for making long spans.

Having thus described our invention, we claim as new and desire to secure by Letters Patent—

1. The combination of the middle, top, and bottom chords A B C, comprising three timbers each, posts D, and braces E and F, the braces and posts being arranged with and secured to the posts and chords, substantially as specified.

2. The top and middle chords extended beyond the posts at the ends and provided with braces G, substantially as specified.

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Witnesses:

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