

(No Model.)

G. W. BLACKMAN & T. G. BLACKMAN, Jr.
BRIDGE.

No. 309,289.

Patented Dec. 16, 1884.

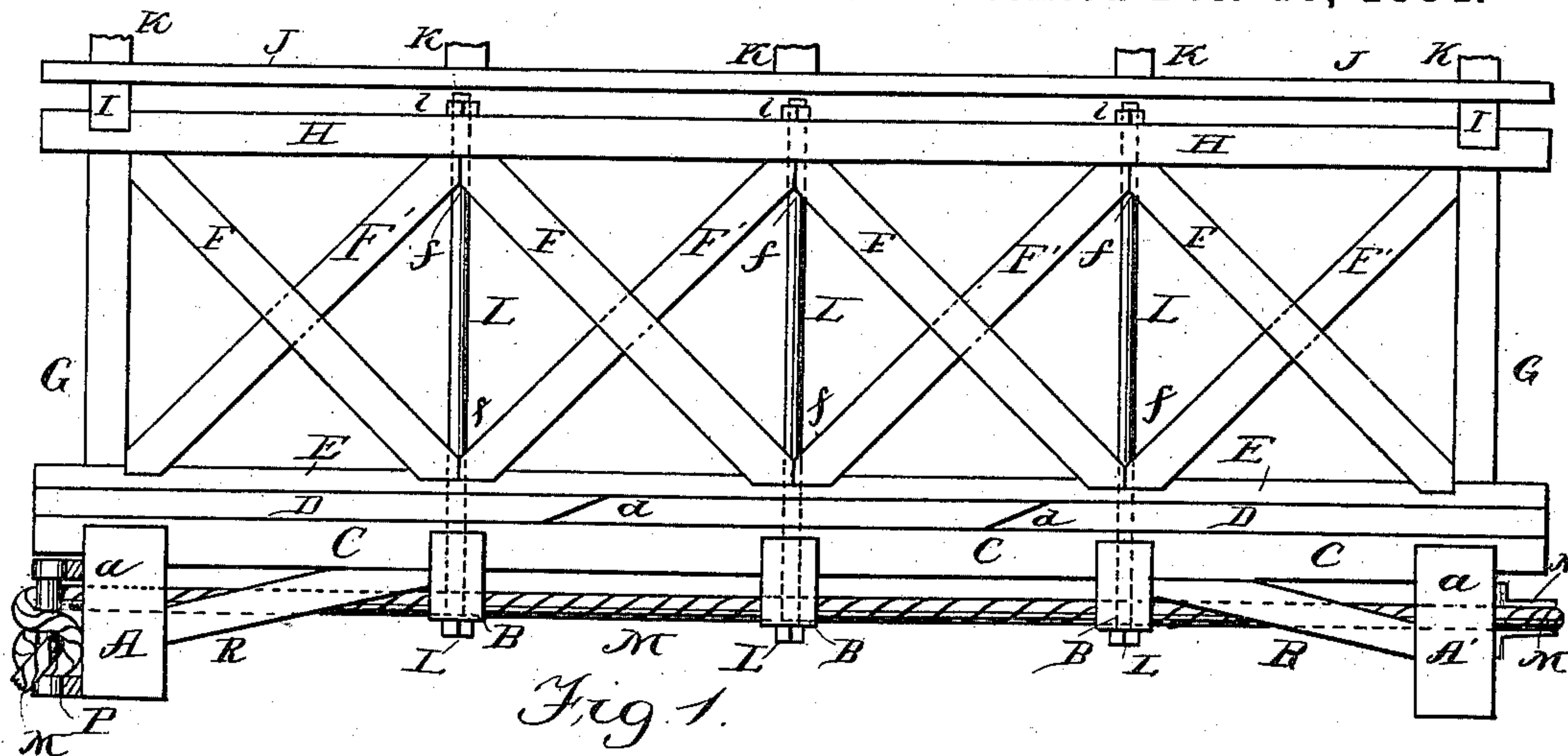
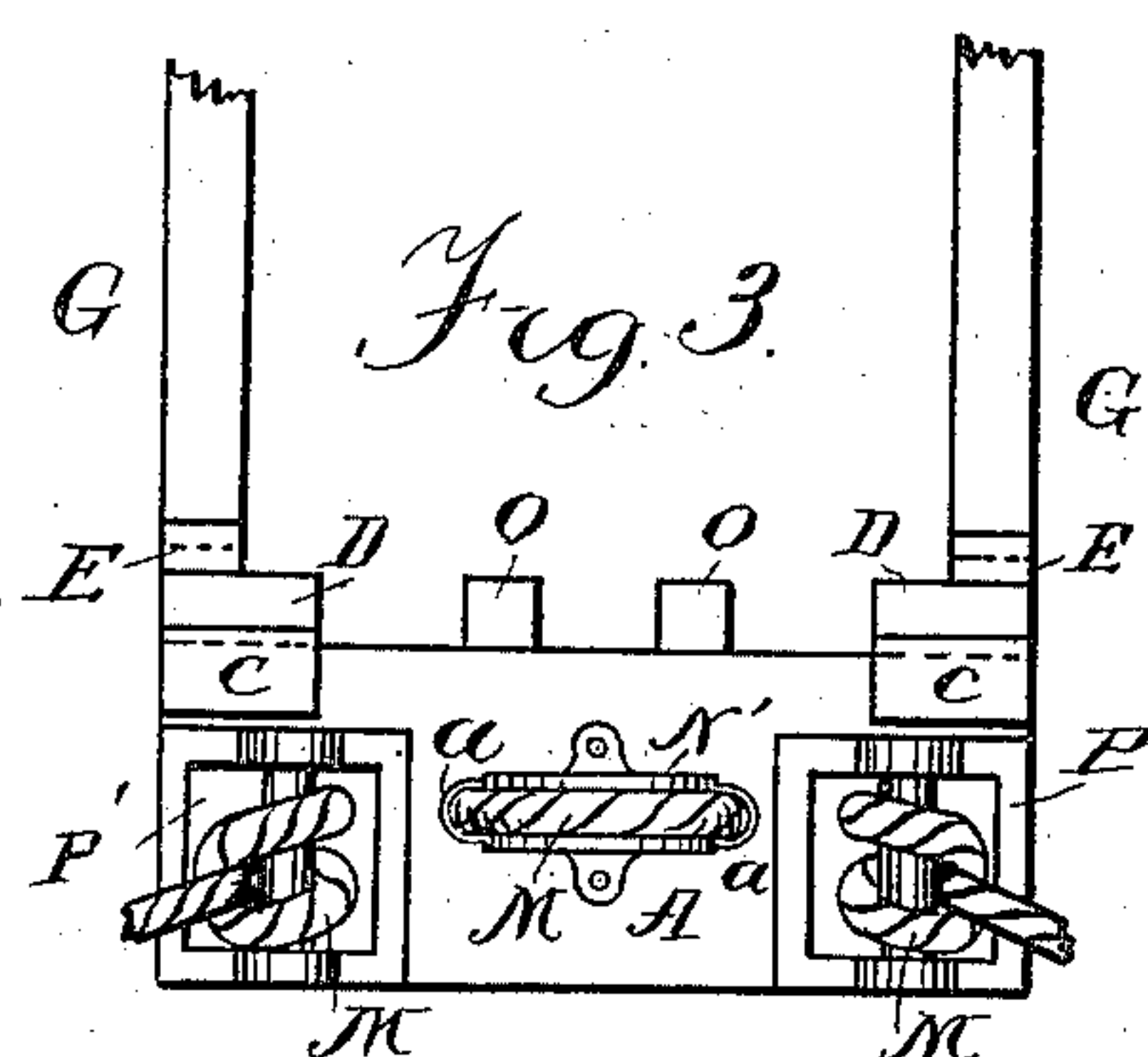
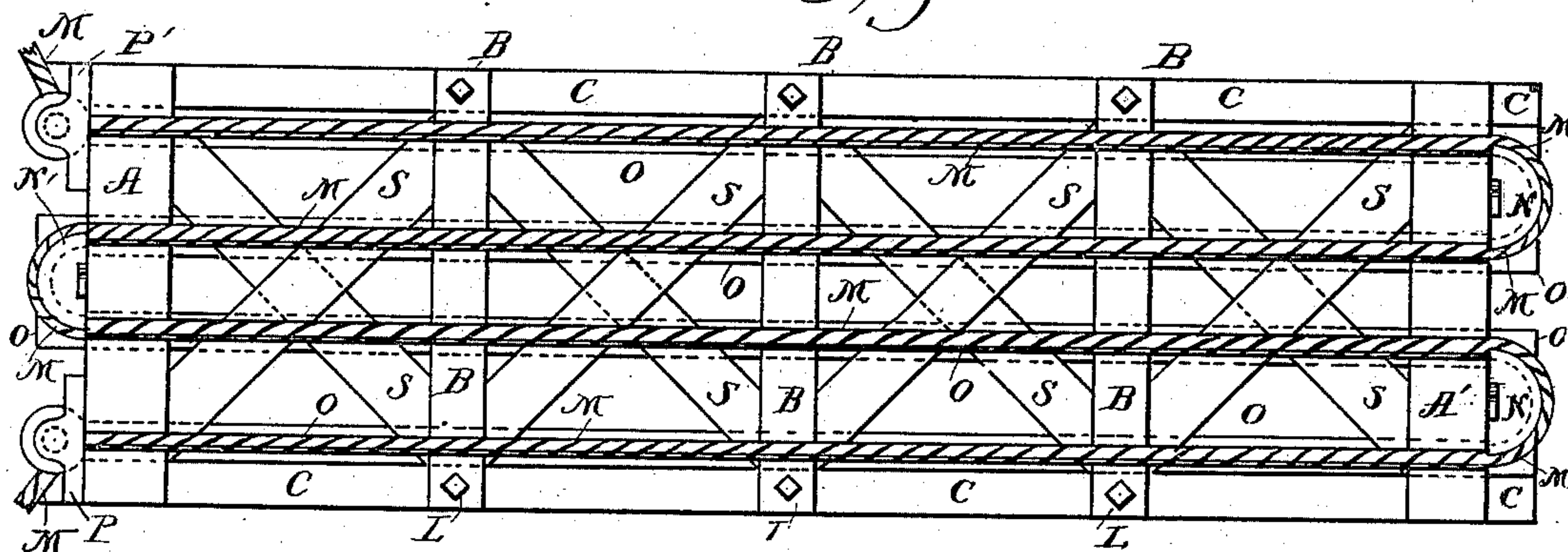


Fig. 2.



Witnesses:

Yours Remotely

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BRIDGE.

SPECIFICATION forming part of Letters Patent No. 309,289, dated December 16, 1884.

Application filed February 2, 1884. (No model.)

To all whom it may concern:

Be it known that we, G. W. BLACKMAN and T. G. BLACKMAN, Jr., citizens of the United States, residing at Ozark, in the county of Dale and State of Alabama, have invented certain new and useful Improvements in Bridges, of which the following is a specification.

The object of the invention is to improve that class of bridges employed to span creeks and small streams by simplifying the construction, economizing the cost, and making any part easy of replacement.

Figure 1 of the drawings is a side elevation, Fig. 2 a bottom plan view, and Fig. 3 a detail end view.

In the drawings, A A' represent the terminal cross-beams of the bridge. These support the frame-work on the opposite shores of the stream where the latter is narrow, or between one shore and post or pier where two frames are required, or between two posts or piers where the width of stream necessitates more than two frame-sections.

In Fig. 2 of the drawings, C C represent the side beams supported in recesses of terminal beams A A' and intermediate cross-beams, B. The cross-beams are braced and counter-braced by intersecting pieces S, and the whole is tied together by a wire rope, M, fastened at one end to a pin, P, or other holder, thence carried back and forth from end to end around grooved guides N, and finally fastened at P', the degree of tension being regulated in any suitable way.

D O represent longitudinal strips to which the cross-planks of the roadway are attached.

E H represent the upper and lower rails of the side frames, G their terminal standards,

L the vertical tie-rods, F F intersecting braces, and f grooves at the meeting ends of said braces. Through these grooves pass the rods L, threaded at each end and provided with nuts l.

I J K represent that part of the cover-frame (if one should be used) which is supported on the rails H.

R are inwardly-extending oblique braces between the terminal and intermediate beams.

With this construction we form a bridge which is admirably adapted to small streams, is sufficiently strong to bear any strain likely to come upon it, minimizes time and labor of construction, and makes any part which may become worn or injured easy of replacement.

We are aware that a multiplicity of parallel ropes each having a ring at both ends has been combined with transverse iron bars and hook-plates embedded in the masonry of the abutments; but this is too expensive for common bridges over small streams, is difficult to repair, and requires more skilled labor than is often attainable on county roads.

What I do claim as new and of my invention is—

The combination, with the roadway-frame of a bridge, of the wire rope M, made fast to a pin, P, on the terminal cross-beam A, carried back and forth between the beams A A', around grooved guides N N', and through said beams to a fastening on frame P', substantially as shown and described.

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Witnesses:

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