

(No Model.)

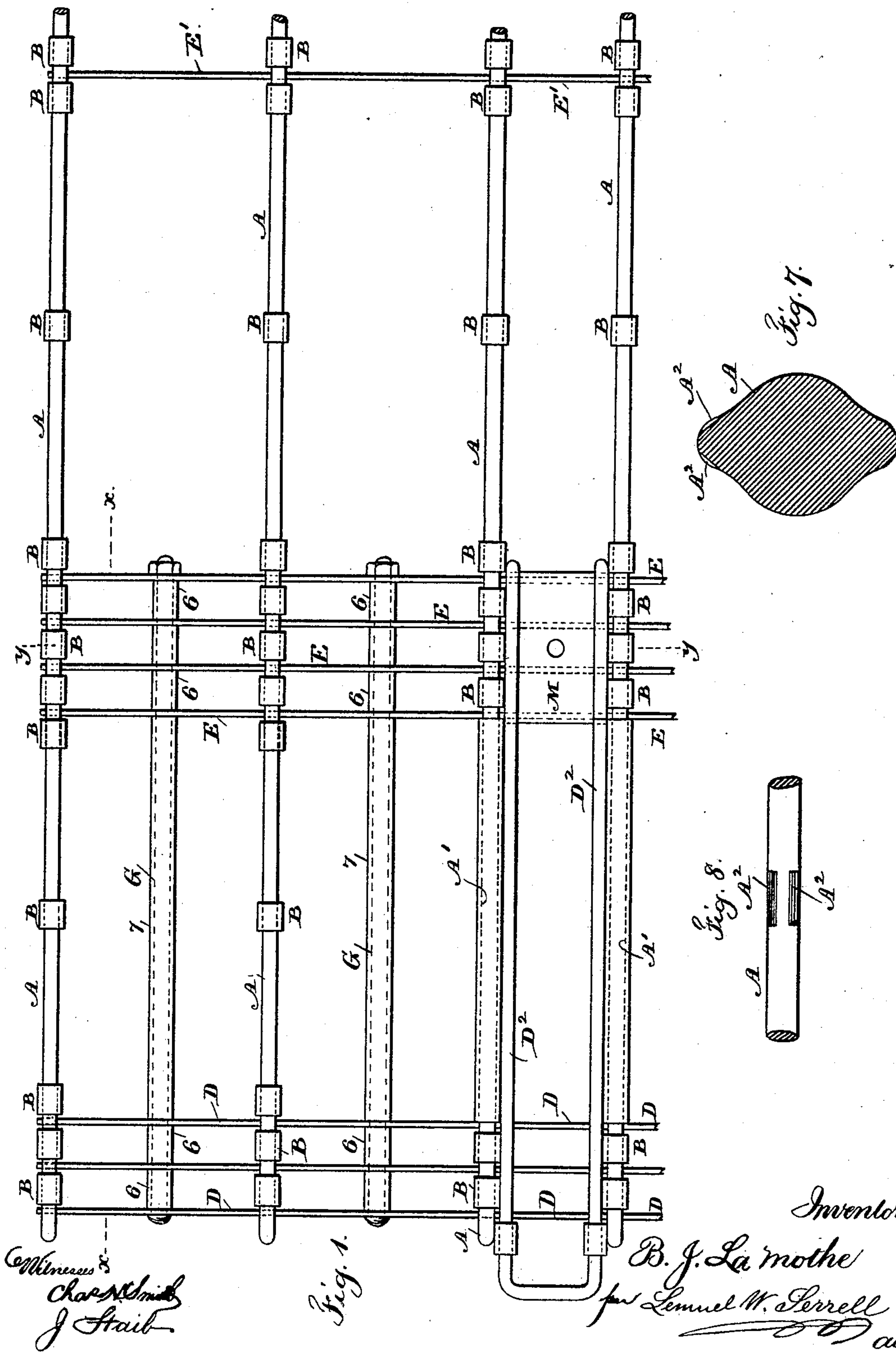
2 Sheets—Sheet 1.

B. J. LA MOTHE.

METALLIC PLATFORM FOR RAILWAY CARS.

No. 390,026.

Patented Sept. 25, 1888.



(No Model.)

2 Sheets—Sheet 2.

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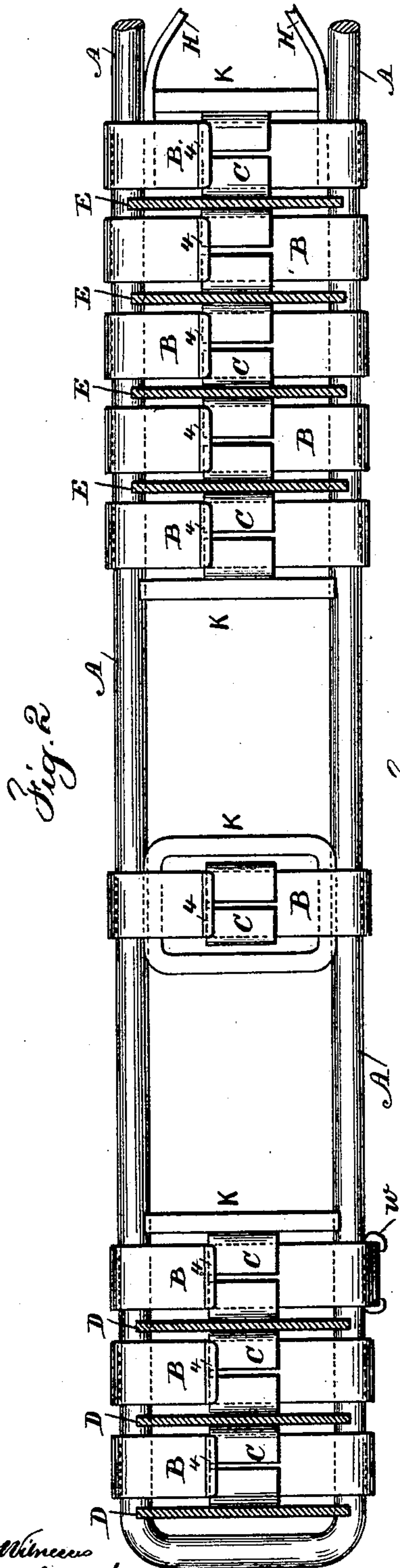


Fig. 2

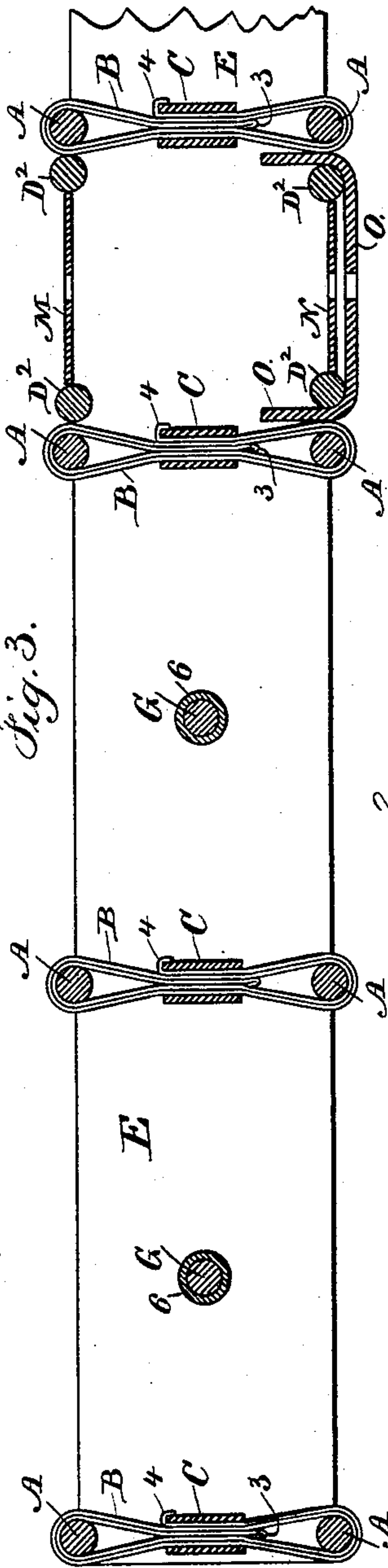


Fig. 3

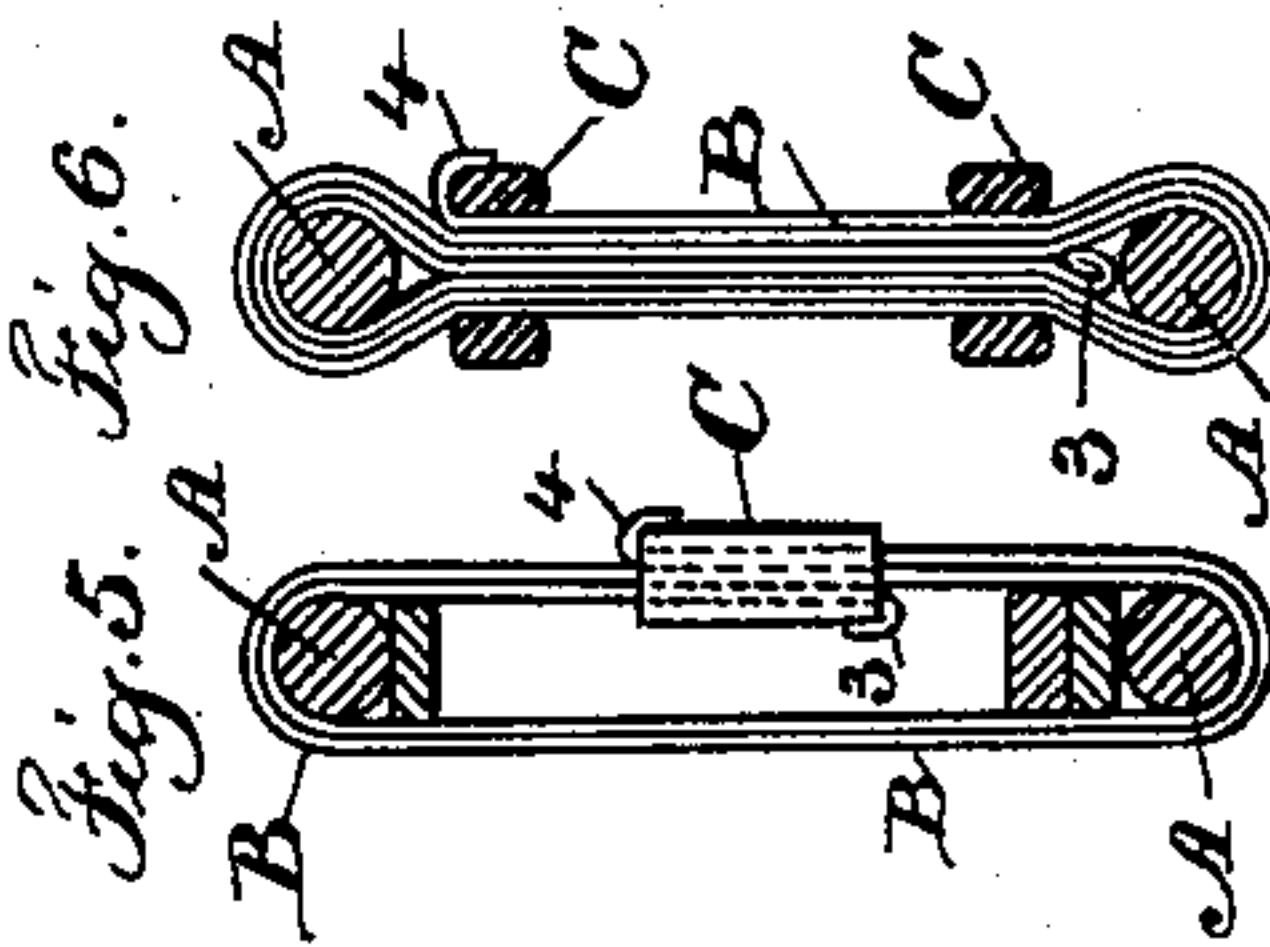


Fig. 5. Fig. 6.

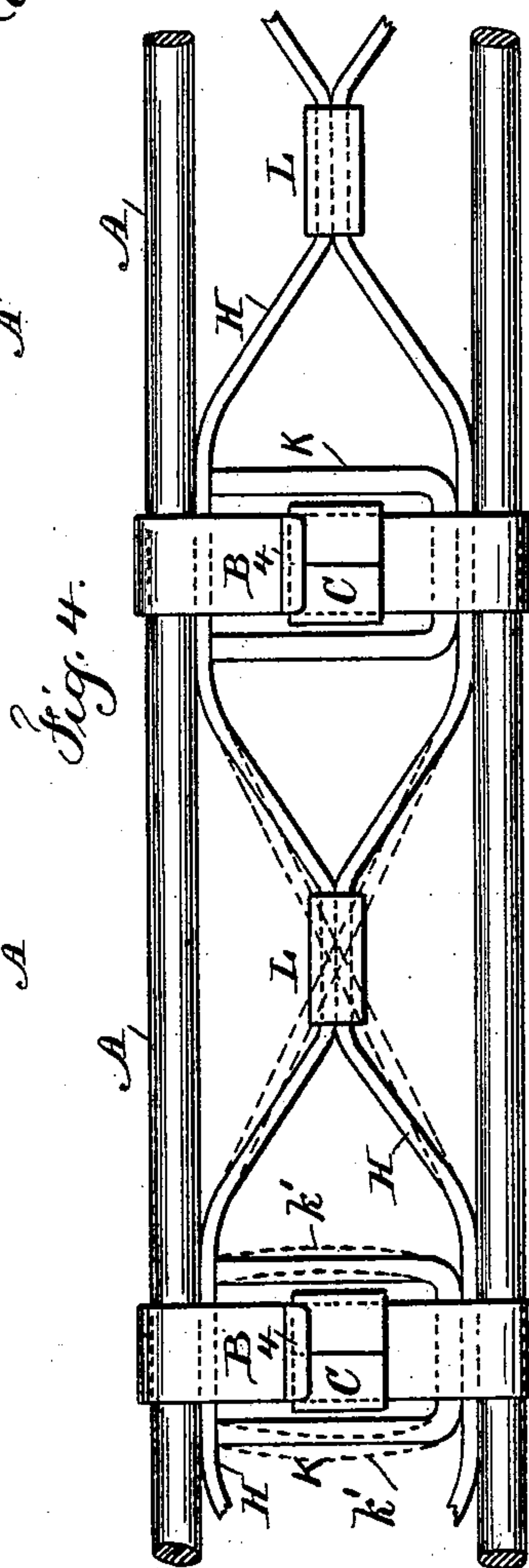


Fig. 4

Witness
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UNITED STATES PATENT OFFICE.

BERNARD J. LA MOTHE, OF NEW YORK, N. Y.

METALLIC PLATFORM FOR RAILWAY-CARS.

SPECIFICATION forming part of Letters Patent No. 390,026, dated September 25, 1888.

Application filed March 5, 1888. Serial No. 266,191. (No model.)

To all whom it may concern:

Be it known that I, BERNARD J. LA MOTHE, of the city and State of New York, have invented an Improvement in Metallic Platforms for Railway-Cars, of which the following is a specification.

The object of this invention is to render the metallic platform very strong, and at the same time to lessen the quantity of iron and steel employed, and thereby lighten the platform and decrease the weight of the car.

In the drawings, Figure 1 is a plan view of the metallic frame-work of the platform near one end. Fig. 2 is a section in larger size at the line *x x*. Fig. 3 is a partial section in similar size at the line *y y*, Fig. 1. Fig. 4 represents a portion of one truss-frame extending from one transom-beam to the other, and Figs. 5 and 6 are cross-sections of the same and elevations of the tie-bands. Fig. 7 is a section of the longitudinal rod in a slightly-modified form, and Fig. 8 is an elevation of a portion of one of the rods.

The rods A extend lengthwise of the platform, and they are in pairs, one above the other. These rods are preferably of steel; or metal tubes may take the place of these rods, the other parts, hereinafter described, being unchanged. If rods are used, I prefer the sectional shape shown in Fig. 7. Around these pairs of metal tubes tie-bands B are introduced at suitable distances apart. Each tie-band is made of a strip of metal, preferably steel, and sufficiently thin to be wound into two or more layers, and such tie-band is passed around the pair of rods to tie them together. The inner end, 3, of each band forms a catch or stop, and the outer end, 4, is made as a hook, and there is around each tie-band a clip-piece, C. This clip-piece C may be in the form of a folded plate, as seen in Figs. 2, 3, 4, and 5, for tying the two ends of the bands B, so that they cannot become loose, even by a force that may be sufficient to break the band itself. Usually the clip-piece will be passed around the center portion of the tie-band, as seen in Figs. 2 and 3, to draw the center portions of the tie-band closely together and simultaneously strain the tie-band very tight; but such clip-piece C may be upon one side only of the tie-band, as seen in Fig. 5, or there may be two narrow tie-bands

driven closely toward the respective rods A, for straining and tightening the tie band, as represented in Fig. 6.

The plates D are applied across the platform at the end portions thereof, to form jointly the end sill of the platform, and the plates E are applied across between the rods or tubes A, at the proper distance from the end of the platform to form the transom-beam. The plates D and E are to be notched at their opposite edges at the places where the respective rods or tubes A are to be applied, and these plates D and E are inserted between the pairs of rods or tubes A before the tie-bands B are tightened up, so that in the act of tightening up these tie-bands B the rods A will be pressed with great force into the notched edges of the plates D and E, so as to prevent the plates D or E moving endwise between the rods A, and to prevent the rods A slipping laterally upon the plates D or E. As seen in Figs. 1 and 2, there are three plates, D, forming the end sill of the platform, and the tie-bands B are applied to each pair of rods, so as to be immediate to the plates D, and there is also a tie-band at the inner side of the plate D that is farthest from the end of the platform, so as to support all of such plates D firmly in their places and clamp them and tie the rods together in the most rigid and reliable manner. So, likewise, the tie-bands B are applied between the transverse plates E, forming the transom-beam, and also at each side of the outer plates of such transom-beam, whereby the respective plates of the end and transom beams are effectually prevented from moving in their relation to the tie-rods A; but as an additional security I make use of tubular washers 6 between the respective pairs of plates D E, and tubes 7, extending from the transom-beam to the end sill, and through these tubes and tubular washers bolts G are passed, which also go through holes in the respective plates D and E, and these bolts G should have heads at one end and nuts at the other end, so as to be set up firmly in place. There may also be tubes around the rods A between the end sill and transom-beam, as seen at A', Fig. 1.

There are to be transverse plates E', either singly or in pairs, similar to the plates D E, and placed at suitable distances apart trans-

versely at the platform and between one transom-beam and the next, and tie-bands B upon each pair of tie rods at each side of each of such transverse plates to support the same and to tie them firmly to the longitudinal rods A. The rods A may be of the sectional shape shown in Fig. 7, and there may be notches or depressions, as at A², for receiving the tie-bands B, so as to effectually prevent the parts slipping, and these notches may be in the round rods, as indicated in Fig. 8.

This improvement in the metallic platform is adapted to freight-cars, open platform-cars, gondola-cars, or coal-cars; but as it is also especially available with passenger-cars having trucks at a considerable distance apart, I stiffen the platform by the introduction between the respective pairs of rods or tubes of braces H, which are passed along within the tie-bands B, and are pressed firmly against the inner faces of the respective rods at these bands B by struts K, which struts are either parallelograms, as seen in Fig. 2, or U-shaped bars, as seen in Fig. 4, or single struts, as seen also in Fig. 2. In either instance these struts K serve to prevent the rods A approaching each other under any strain to which the parts may be subjected either when in use or during the tightening up of the tie-bands B, and these braces H are bent zigzag, so as to be brought together at intermediate points between the tie-bands B, and at these places clips L are made use of to surround the brace-bars H and hold them firmly together; or the brace bars H may cross each other, as shown by dotted lines in Fig. 4.

The rods A, tie-bands B, struts K, and braces H, as illustrated in Fig. 4, make a very firm truss and one that is adapted to withstand weight or pressure, especially between one transom-beam and the next, so that the platform will not become twisted or out of shape by any ordinary load to which it is subjected, and none of the parts can move the one on the other, except by a sufficient force to rupture the tie-bands or to break some of the

connections. The rods D² pass along the center part of the platform between the transom-beam and the end sill, so as to give additional strength when the draft-bar and buffers are applied. These latter parts are of any desired character, and are not shown.

At the center of the transom-beam it is preferable to make use of top and bottom plates, M N, with holes through them for the king bolt, and also to make use of a bearing-plate, O, beneath the pairs of rods A, which plate rests upon the center bearer of the car-truck, and it is held firmly to such rods A by the ends of the plate O passing upwardly and being notched for the passage transversely of the plates E, and these ends pass in between one pair of rods A and the next, as indicated in Fig. 3.

If the struts K are slightly bent, as seen by dotted lines at K', Fig. 4, at the time they are put into place, they will exert a powerful pressure by straightening them out, so as to prevent slipping out of place. If desired, thin wedges may be inserted between the tie-bands and tubes, as seen at w, to tighten up the parts.

I claim as my invention—

1. The combination, with the rods or tubes A, plates E and D, and the respective tie-bands and struts for connecting the parts together, of the bolts G, passing through the respective plates D and E, and the washers 6 and tubes 7 around said bolts and between the plates D and E, substantially as and for the purposes specified.

2. The combination, with the rods or tubes A and the tie-bands B, of the brace-bars H, passing within the tie-bands, the struts K, for holding the braces against the rods A, and the clip L, for connecting the brace-bars together intermediately to the tie-bands, substantially as specified.

Signed by me this 24th day of February, 1888.

B. J. LA MOTHE.

Witnesses:

GEO. T. PINCKNEY,
WILLIAM G. MOTT.