

(No Model.)

W. A. JONES.

CAR COUPLING.

No. 304,107.

Patented Aug. 26, 1884.

Fig. 1.

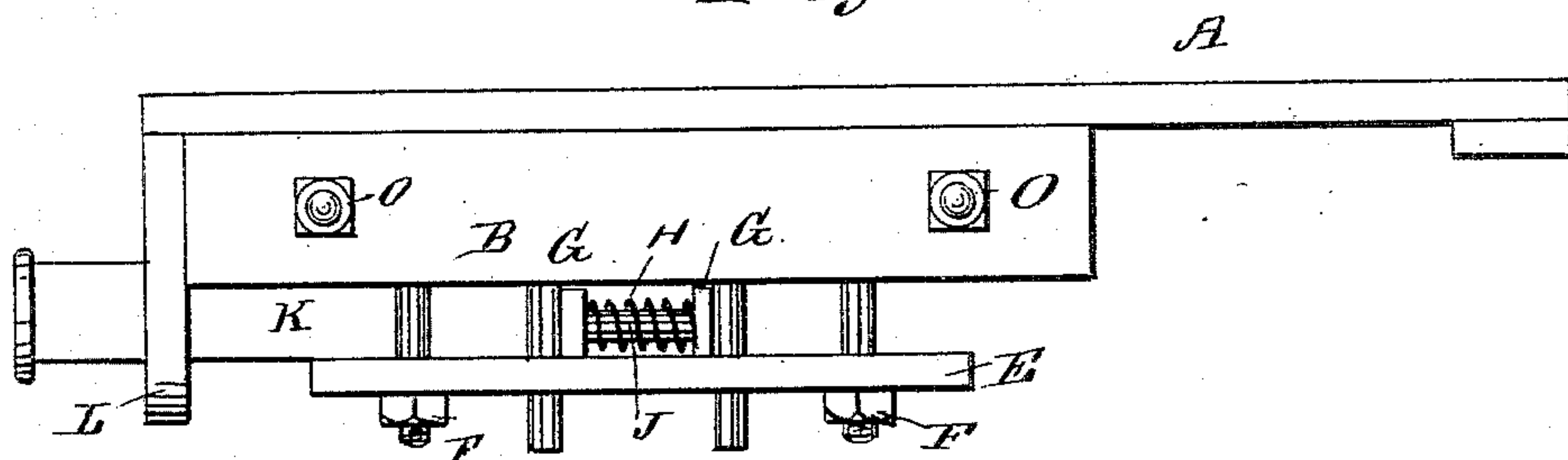


Fig. 2.

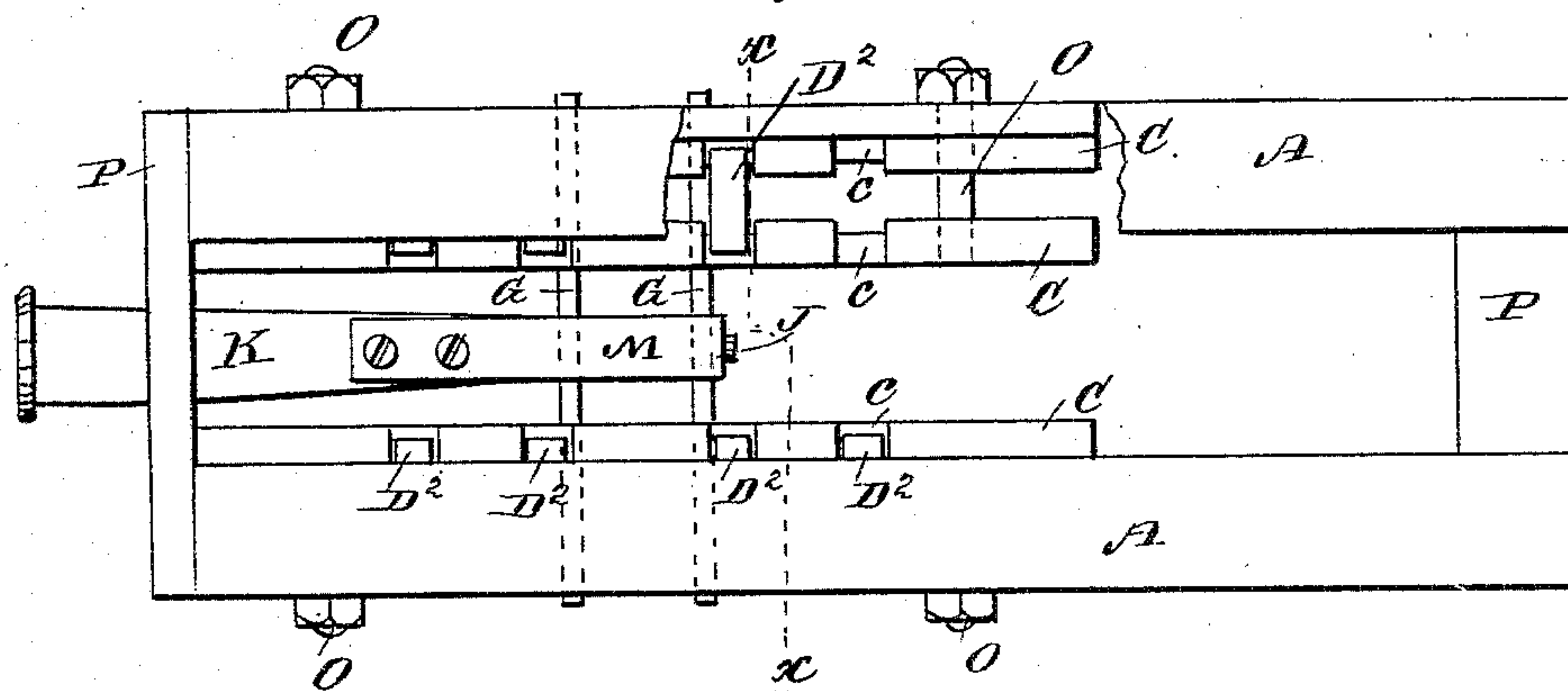
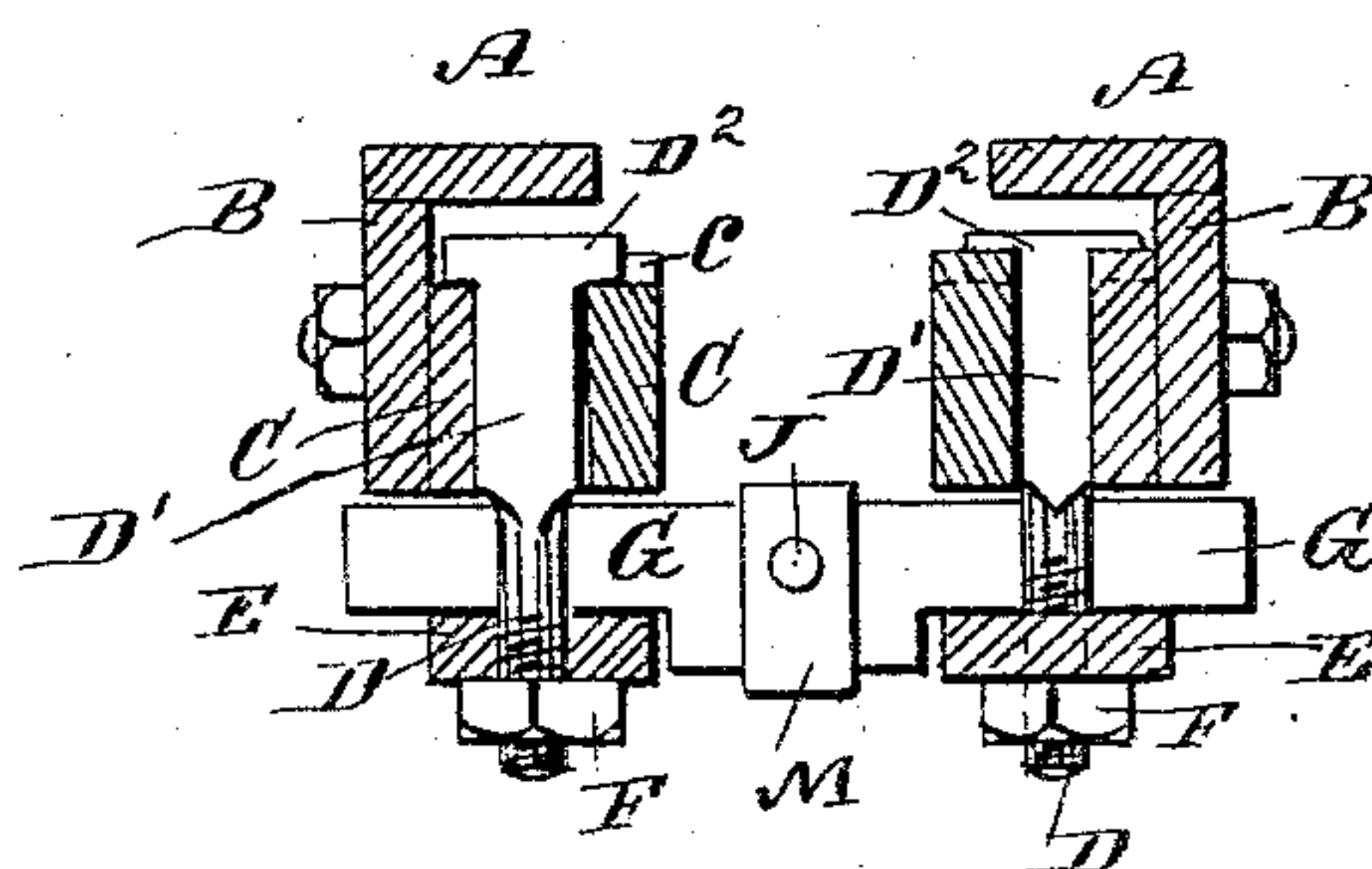


Fig. 3.



WITNESSES:

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WILLIAM A. JONES, OF DELAWARE, OHIO.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 304,107, dated August 26, 1884.

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

To all whom it may concern:

Be it known that I, WILLIAM A. JONES, of Delaware, in the county of Delaware and State of Ohio, have invented a new and Improved
5 Draw-Bar for Freight-Cars, of which the following is a full, clear, and exact description.

The object of my invention is to provide a new and improved draw-bar for freight-cars, which can easily be repaired without requiring the parts of the car to be taken apart.

The invention consists in the combination, with vertical plates held on the under side of a car, of bolts held between the said plates, and a draw-head having its inner end supported by cross-bars resting on plates held on
15 the above-mentioned vertical bolts.

The invention also consists in parts and details and combinations of the same, as will be more fully described and set forth herein-
20 after.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

25 Figure 1 is a side view of my improved draw-bar. Fig. 2 is a plan view of the same, parts being broken out. Fig. 3 is a cross-sectional elevation on the line *x x*, Fig. 2.

Two stringers or beams, A, are secured parallel to and a short distance from each other on the under side of the car, and on the outer edge of each stringer a downwardly-projecting jaw-block, B, is secured.

On the inner side of each jaw-block B two
35 plates, C C, are held, so that each pair resting against the inner surface of the corresponding jaw-block B is held apart by the upper squared parts, D', of screw-bolts D, placed between the plates C. The screw-bolts D are
40 provided at their upper ends with transverse heads D², which rest in transverse grooves or notches *c* in the upper edges of the plates C. The heads D² of the bolts D are short distances below the stringers A. I prefer to arrange
45 four bolts D between each two bars or plates C. The middle bolts D need not have their lower ends screw-threaded. The lower ends of the four bolts D between each pair of bars or plates C are passed through a plate, E, placed horizontally below the plates C, and
50 nuts F are screwed on the ends of the bolts D

below the plate E, so that the plate E will rest on the nuts F, and will be supported by the end bolts D.

Between the middle bolts D two transverse
55 bars, G, are placed edgewise on the plates E, and between the transverse bars G a spiral spring, H, is arranged, which is coiled around the spindle J, projecting from the inner end of the draw-head K, supported by a cross-piece,
60 L, secured on the front-ends of the jaw-blocks B and the plates or bars C. A band, M, secured on the top and bottom surfaces of the draw-head, is passed over the two cross-bars G, and is provided in its vertical cross-piece
65 with an aperture, through which the spindle J can pass, the bars G being provided with corresponding apertures. The spring H acts as a buffer both when the draw-bar is being pulled toward the end of the car and when it is being
70 pushed toward the middle of the car. The strain on the draw-head is transmitted to the transverse bars G, and from the same it is transmitted to the bolts D, which are held at their upper ends by the heads D², and at their
75 lower ends by the bolts E. The bars or plates C are held together by bolts O, and the stringers A are held together at their ends by cross-pieces P. If the draw-head is to be removed, it is only necessary to unscrew the nuts F, when
80 the plates E drop, and with them the cross-bars G, supporting the inner end of the draw-head, will also drop. A new draw-head can then be fastened and held on the bottom of the car very easily and readily, and without dis-
85 turbing any of the parts of the car.

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

1. The combination, with the plates C, of the bolts D, held between them, the plates E, supported by the bolts D, the cross-pieces G, and the draw-head K, substantially as herein shown and described.

2. The combination, with the plates C and the bolts D, held between them, of the plates E, held on the lower ends of the bolts, the cross-pieces G, the draw-head K, the spindle J, and the spring H, surrounding the spindle between the cross-pieces G, substantially as
95 herein shown and described. 100

3. The combination, with the plates C, of the

bolts D, the plates E, supported by the same, the cross-bars G, the draw-head K, the spindle J, the spring H, surrounding the spindle between the cross-bars G, and the band M, secured on the inner end of the draw-head and passed over the cross-piece G, substantially as herein shown and described.

4. The combination, with the plates C, having notches *c* in their upper edges, of the bolts D, having heads D², the plates E, the cross-bars G, and the draw-head K, substantially as herein shown and described.

5. The combination, with the plates C, of the bolts D, of which only the end bolts are threaded, the plates E, the nuts F on the bolts D, the cross-bars G, the spring H, and the draw-head K, substantially as herein shown and described.

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Witnesses:

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