(No Model.) 2 Sheets—Sheet 1.

T. L. McKEEN.

BUFFER PLATFORM FOR RAILROAD CARS.

No. 573,187. Patented Dec. 15, 1896.

Fig. 1.

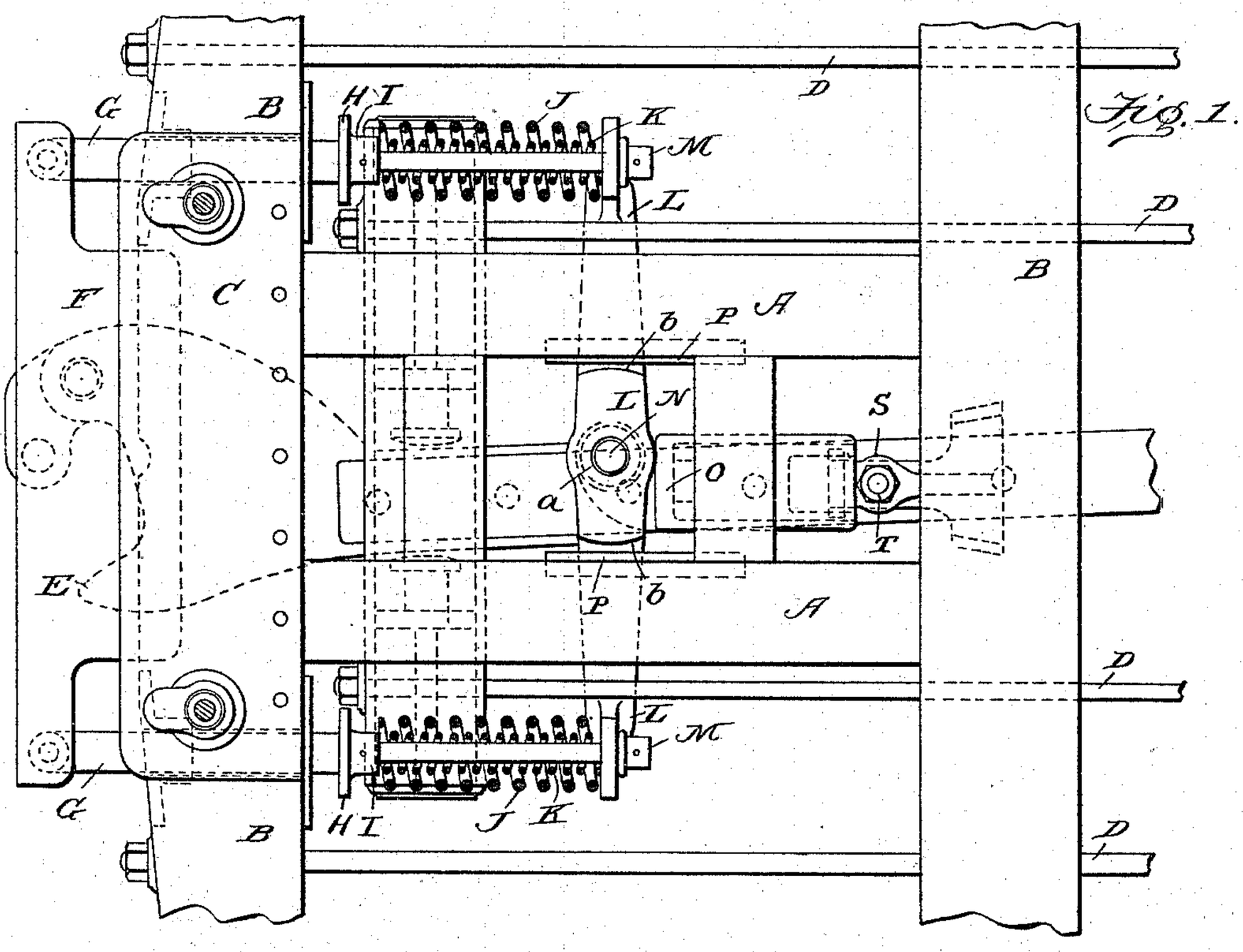
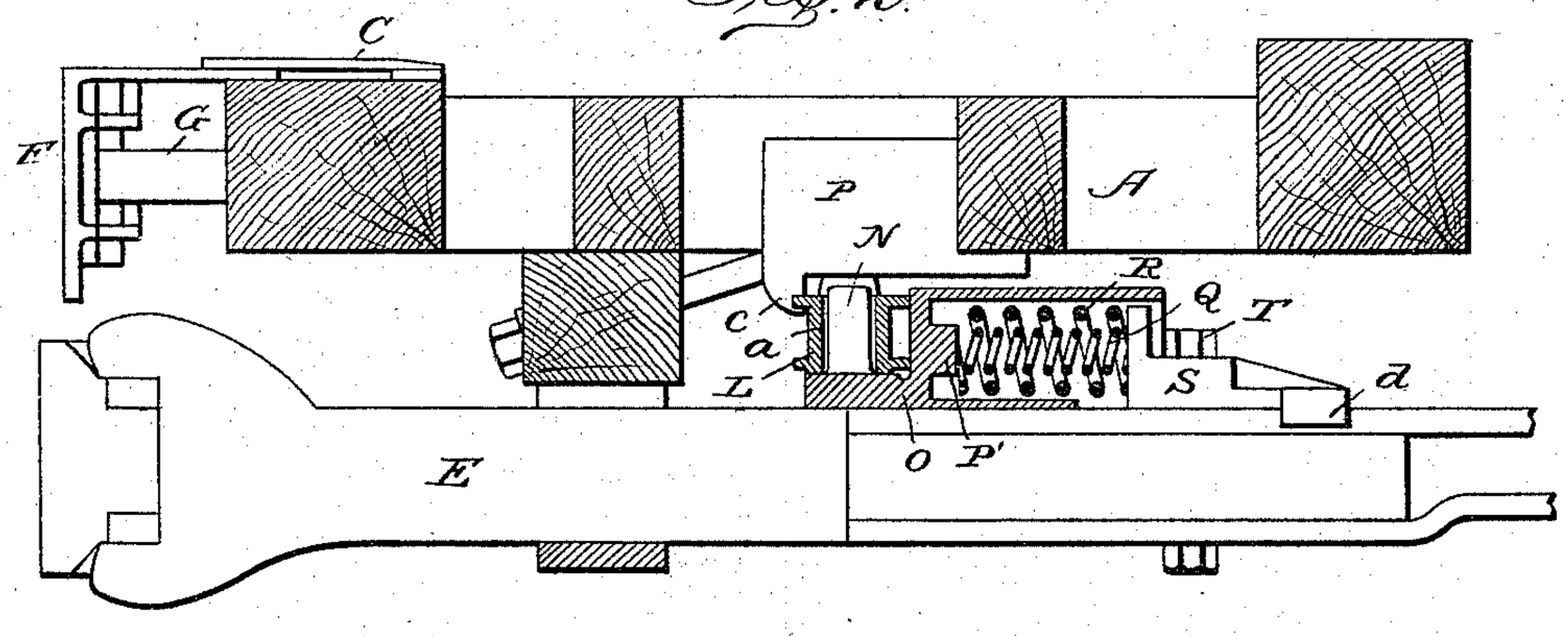


Fig. 2.



Thos. L. McKeen

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(No Model.) 2 Sheets—Sheet 2.

T. L. McKEEN.

BUFFER PLATFORM FOR RAILROAD CARS.

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Fig. 3.

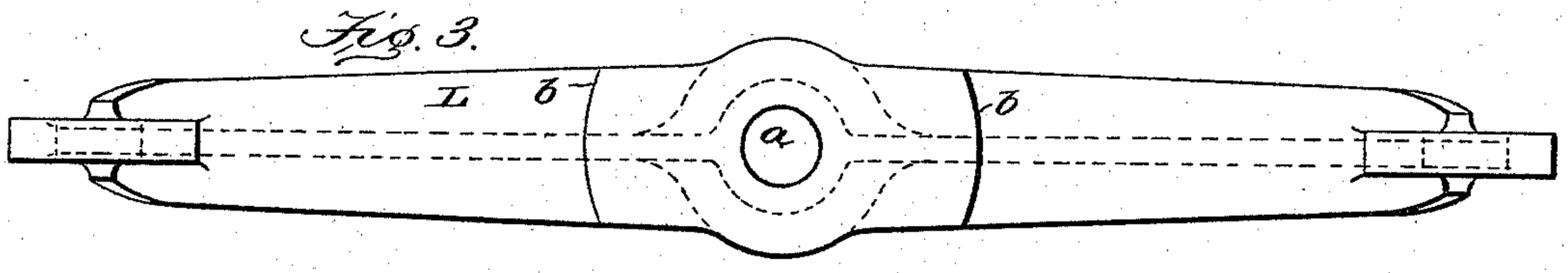


Fig. 4.

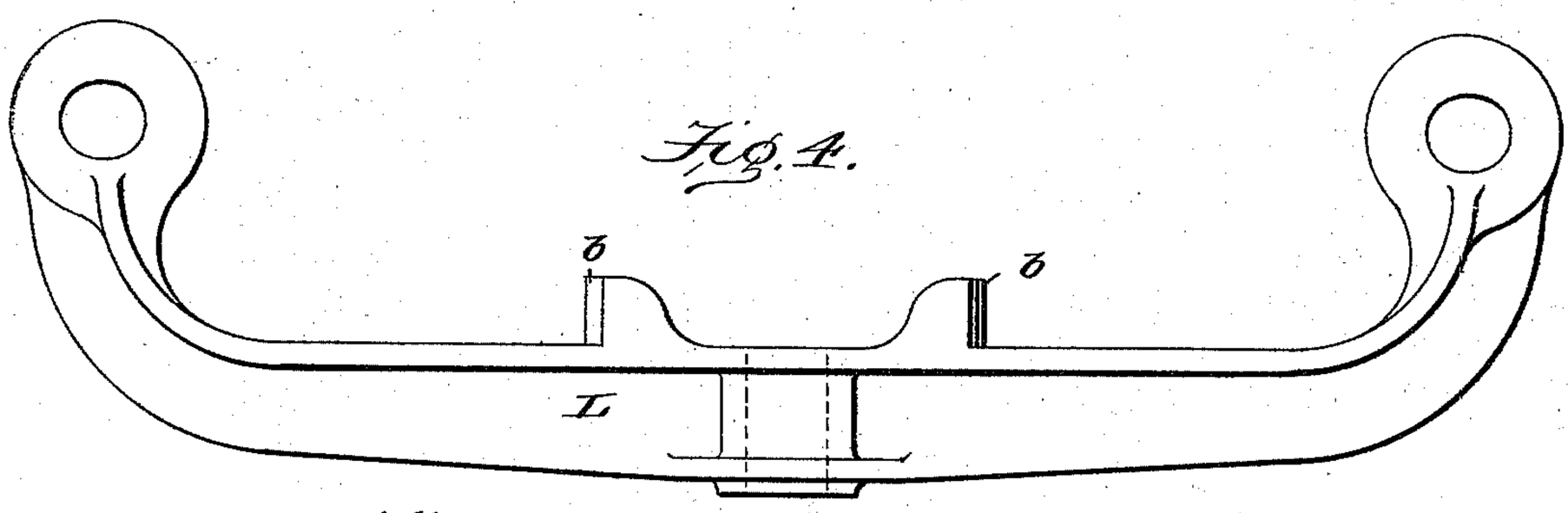


Fig. 5.

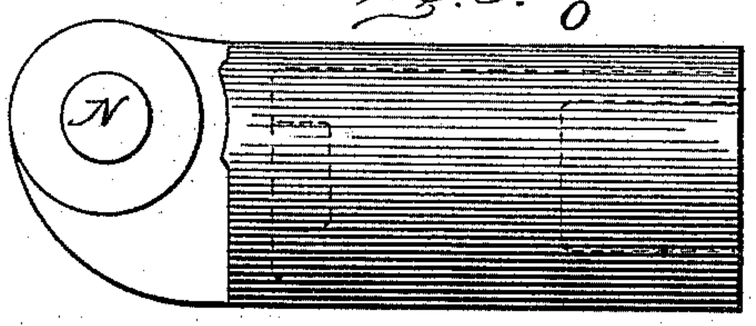


Fig. 6.

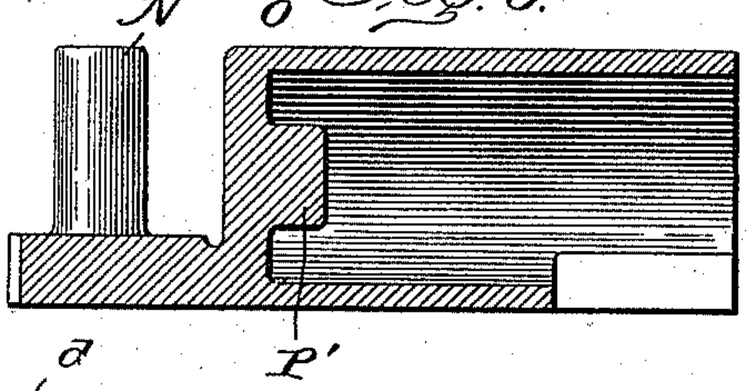


Fig. 7.

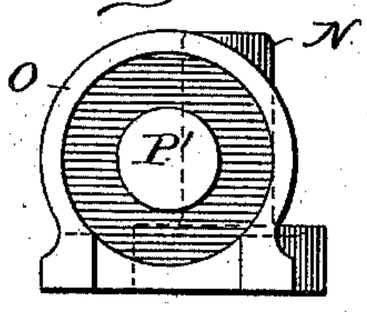


Fig. 8.

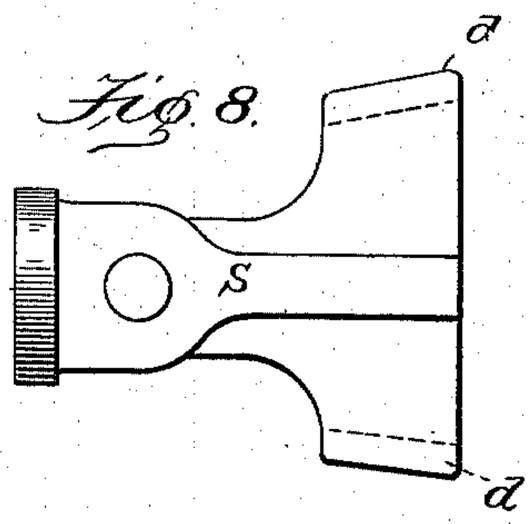


Fig. 9.

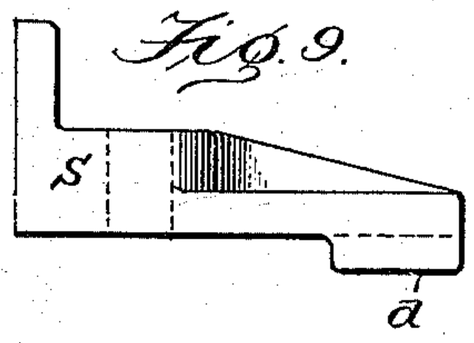


Fig. 10.

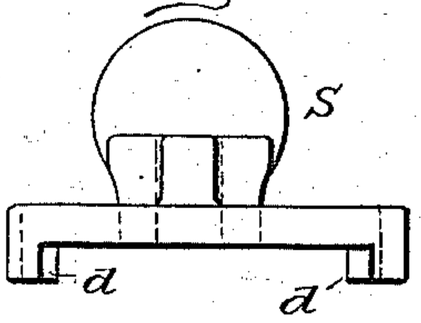


Fig. 11.

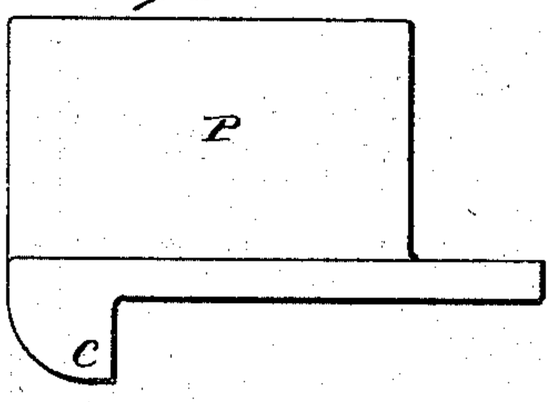
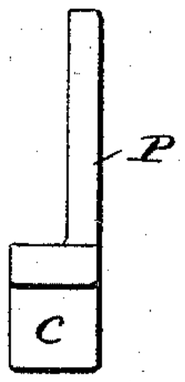


Fig. 12.



WITNESSES:

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UNITED STATES PATENT OFFICE.

THOMAS L. McKEEN, OF NEW YORK, N. Y., ASSIGNOR TO THE TROJAN CAR COUPLER COMPANY, OF TROY, NEW YORK.

BUFFER-PLATFORM FOR RAILROAD-CARS.

SPECIFICATION forming part of Letters Patent No. 573,187, dated December 15, 1896.

Application filed September 14, 1896. Serial No. 605,846. (No model.)

To all whom it may concern:

Be it known that I, THOMAS L. McKEEN, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Buffer-Platforms for Railroad-Cars; 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.

My invention relates to certain new and useful improvements in buffer-platforms for railroad-cars, and in which buffer-platforms are kept in spring-contact for the purpose of preventing the jerking and violent impact resulting from the lost motion caused by the longitudinal movement of the spring draw-bar, and to at the same time form a continuous platform between the cars. Many improvements have been suggested in this class of platforms, and therefore my invention necessarily relates to the details of construction through which the desired results are obtained, and I will proceed to describe the same, referring by letters to the accompanying drawings, in which—

Figure 1 is a plan view of so much of a car as is necessary to illustrate my invention. Fig. 2 is a central longitudinal section of the same, but showing the draw-bar in elevation. Fig. 3 is a plan view of the equalizer yoke or bar. Fig. 4 is a front elevation of the same. Fig. 5 is a plan or top view of the follower-shoe; Fig. 6, a central longitudinal section of the follower-shoe; Fig. 7, a rear end view of follower-shoe; Fig. 8, a top or plan view of the follower-stop; Fig. 9, a side view of said stop; Fig. 10, a rear end view of the same; Fig. 11, a side view of one of two guide-plates which prevent lateral thrust of the equalizer-bar, and Fig. 12 is an end view of the same.

Similar letters of reference indicate like parts in the several figures of the drawings.

A represents the ordinary beams, which constitute the body or frame of the car.

B is the front cross-beam, upon which the main platform C is erected. This cross-beam is secured in position by the usual rods D, and E is the usual draw-bar, centrally located beneath the platform C.

The buffer-platform F slides in the usual manner in a slot or pocket under the tread of the main platform C, (see Fig. 2,) and is extended laterally at its front end, as clearly shown at Fig. 1. Each of its extended ends is pivotally connected to the side buffer-stems G G, which are formed or provided with a collar H and cylindrical projection I to bear, respectively, against an outer stiff coil-spring J and an inner and lighter coil-spring K, surrounding the reduced cylindrical rear extension of the stem G. The front ends of the stems G pass through the front beam B and are guided thereby. The rear reduced ends of the said stems pass through suitable channels in the upturned ends of the equalizer bar or yoke L and are secured by suitable caps or nuts M. The equalizer-bar, as most clearly shown at Figs. 3 and 4, is formed with a central enlargement to give it strength and provided with a vertical channel *a* to fit over a pivot or pintle N on the front end of the follower-shoe O (see Fig. 6) and with projections *b b*, which fit in between plates P, fitted to the inside of the longitudinal beams A A, which construction and arrangement prevents any sidewise or lateral thrust of the equalizer-bar. The front edges of these projections *b b* contact with a lip or projection *c* at the front end of the plates P when the cars are uncoupled and bring the buffer-head in parallelism with the front of the car through the medium of the side springs J K in an obvious manner, and also prevent any outward movement of the buffer-head more than normal, this dispensing with any righting-springs.

The follower-shoe O, being pivoted, as described, to the equalizer-bar, is necessarily free to reciprocate with it as it moves with the buffer-head. It is hollow, as shown, and is formed with an interior cylindrical projection P′ to bear against the interior weaker coil-spring Q, located within, while the front end of the heavier coil-spring R bears against the solid front end of the box. A stop S is secured to the tail end of the draw-bar E by a suitable bolt T, as most clearly shown at Fig. 2, and the rear end of the stop is fan-shaped and provided with vertical webs *d*, as shown at Figs. 8, 9, and 10. The distance between the webs *d* is greater than the width

of the draw-bar, thus permitting the latter to move pivotally, while the equalizer-bar and follower-shoe remain practically stationary. The two springs Q and R are confined, as shown, between the toe of the shoe and the stop S.

From the construction and arrangement shown it will be understood that a central buffer-stem is dispensed with and that the greatest amount of compression is exerted on the side stem-springs, thus relieving in a measure the springs contained within the shoe, which only come into use when excessive or undue rearward movement of the coupler takes place and when the buffer is to be forced outwardly. The employment of the double springs within the shoe in connection with the projection P′ renders the coupling of cars comparatively easy, as only the inner and weaker coil-spring Q is compressed under ordinary circumstances.

From the general construction and arrangement shown it will be obvious that the buffer is perfectly free to accommodate itself to all curves in the tracks, and that an easy equalizing motion is secured for the buffer.

Having described the construction and advantages of my improvements, what I claim as new, and desire to secure by Letters Patent, is—

1. In combination with the frame of the car, draw-bar E and main platform C, the buffer-platform F, the side stems G formed with collars H and projections I, the coil-springs Q, R, nuts M, equalizer-bar L, follower-shoe O constructed as described and pivoted to the equalizer-bar, springs Q and R contained within the shoe, and follower-stop S pivotally connected to the draw-bar, substantially as and for the purpose set forth.

2. The equalizer-bar formed with the projections *b*, *b*, in combination with the plates P secured to the beams A and provided with lips or projections *c*, whereby the lateral and forward movements of the equalizer-bar are checked, substantially as hereinbefore set forth.

3. In combination with the equalizer-bar L, shoe O and draw-bar E, the stop S pivoted to the draw-bar, extended laterally at its rear end and formed with vertical webs *d*, substantially as and for the purpose set forth.

4. The follower-shoe O formed with the pintle N for connection with the equalizer-bar, and with an interior cylindrical projection P′, substantially as and for the purpose set forth.

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

THOMAS L. McKEEN.

Witnesses:
EDWARD VAN INGEN,
FRANKLYN PADDOCK.