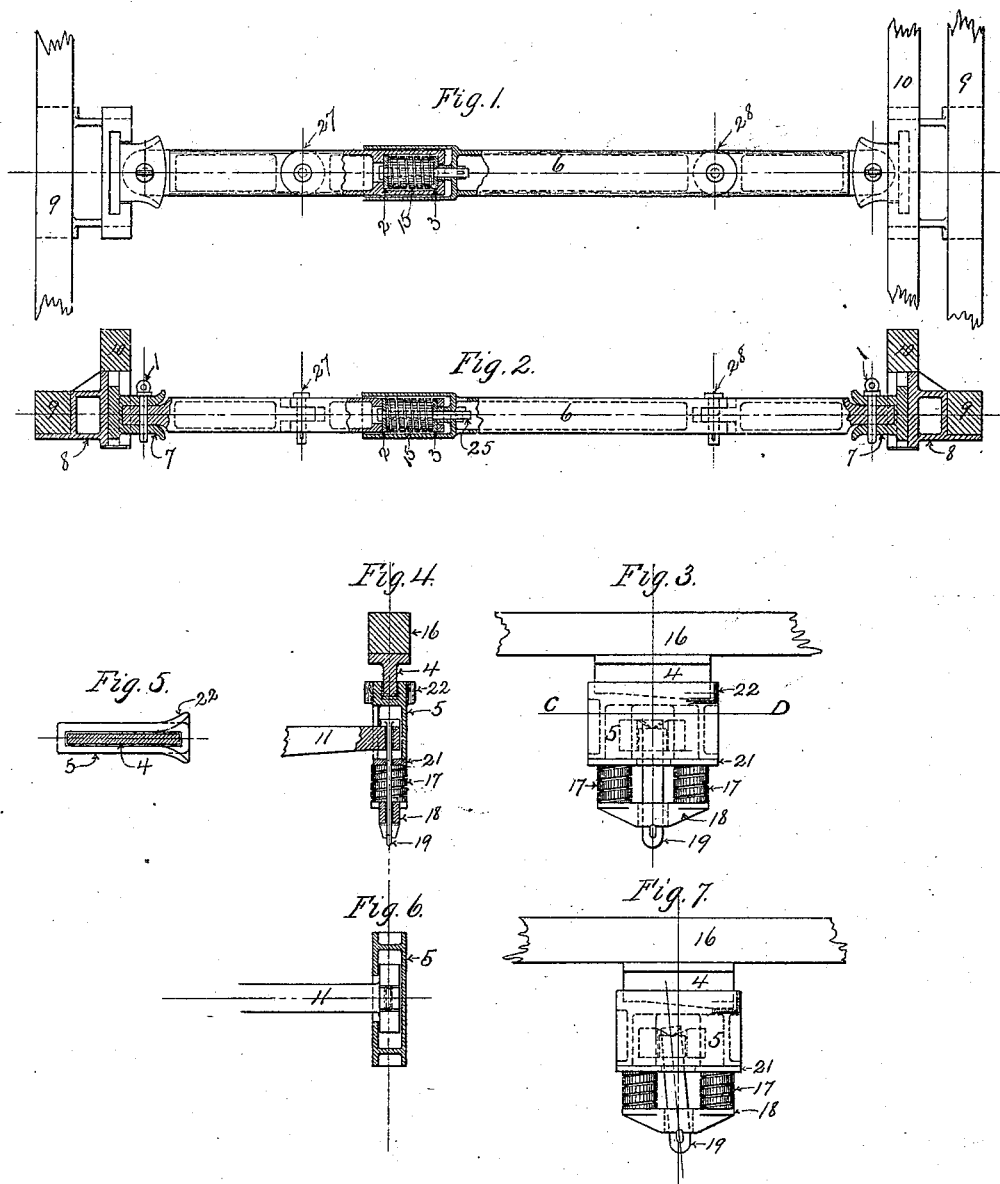


(No Model.)

W. H. MARSHALL.
CAR TRUCK.

No. 421,593.

Patented Feb. 18, 1890.



WITNESSES:

Samuel Alexander
Arthur H. Smith

INVENTOR

Wm. H. Marshall

BY

Wm. C. Behrman

ATTORNEY

UNITED STATES PATENT OFFICE.

WALDO H. MARSHALL, OF CHICAGO, ILLINOIS, ASSIGNOR TO ROWLAND R. HAZARD, OF NEW YORK, N. Y.

CAR-TRUCK.

SPECIFICATION forming part of Letters Patent No. 421,593, dated February 18, 1890.

Application filed August 28, 1889. Serial No. 322,198. (No model.)

To all whom it may concern:

Be it known that I, WALDO H. MARSHALL, a citizen of the United States, and a resident of Chicago, Cook county, Illinois, have invented a new and useful Improvement in Railway Passenger-Car Trucks and Cars, of which the following is a specification.

My invention relates to railway passenger-car trucks; and consists in the several combinations of parts hereinafter described and claimed.

In the accompanying drawings, forming part of this specification, Figure 1 is a plan view of a buffer and draw-bar. Fig. 2 is a side elevation of the same. Fig. 3 is a side elevation of a side bearing embodying my invention. Fig. 4 is a cross-section, Fig. 5 a plan view, and Fig. 6 a horizontal section, of said side bearing, the latter section taken through line C D of Fig. 3. Fig. 7 is a side elevation of side bearing when buffer has been compressed.

My invention is intended to be applied to intermediate trucks and cars similar in kind to those described in application of D. L. Barnes, Serial No. 304,033.

Referring to the accompanying drawings, 6 indicates the draw-bar suspended from the truck, as shown in the application of D. L. Barnes, before referred to. The draw-head 8 is secured to the car-sills 9 and 10, and is vertically grooved, as shown. In said groove the auxiliary draw-head 7 slides, the latter being connected to the draw-bar by coupling-pin 1. The draw-bar is made in two parts—one sliding over the other—and is provided with spring 15 to relieve sudden strains, either of compression or tension. The said spring is arranged between two plates 2 and 3, the latter 3 resting against projection 26 of draw-bar and the former 2 against the end of bolt or rod 25, secured thereto. In case of a strain of compression, plate 2 is caused to compress the spring, while in case of a strain of tension plate 3 moves away from its seat 26, acting, also, to compress the said spring. The said draw-bar is provided with two joints 27 and 28 for the purpose of allowing the necessary motion to rear end of draw-bar as the truck swivels in passing curves.

Referring now to Fig. 3, the side bearing

4 is secured to side sill 16 of car, the said side bearing 4 co-operating with truck side bearing 5. The latter is provided with flanges 22 to prevent lateral displacement or disengagement. When by any means the car is raised so as to relieve the truck of its weight, the two can be longitudinally disengaged from each other, and for this purpose the under side of bearing 4 is inclined, as shown.

As the adjacent ends of two cars are supported on the same truck, and as the distance between the adjacent ends varies as the tension or compression of the draw-bar is greater or less, it is necessary to make the connection between car and truck such as to allow for such motion. Referring to the drawings, Fig. 6, it will be seen that the end of the truck-equalizer or car-support 11 is T-shaped and is fitted to side bearing 5, so that a vertical and longitudinal motion can take place. The weight of the car is transmitted from side bearing 5 to plate 21, thence to springs 17, side-bearing equalizer 18, and link 19. The upper end of this link rests upon truck-equalizer 11 and transfers the weight to it. When adjacent cars approach or recede from each other on account of varying tension or compression of draw-bar springs, link 19 will swing and the parts referred to will assume the position illustrated in Fig. 7.

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

1. The combination of truck side bearing and truck-equalizer with a longitudinally-yielding connection between the same, whereby said side bearing is permitted to move longitudinally relatively to said truck-equalizer to compensate for compression of draw-springs, substantially as described.

2. The combination, with car provided with side bearings, of truck side bearing and truck-equalizer, and a longitudinally-yielding connection between said truck bearing and equalizer, whereby said bearing is permitted to move longitudinally relatively to said truck-equalizer to compensate for compression of draw-springs, substantially as described.

3. The combination, with car provided with side bearings, of truck side bearing having side flanges, truck-equalizer, and a longitudi-

nally-yielding connection between said truck bearing and equalizer, whereby said bearing is permitted to move longitudinally relatively to said truck-equalizer and lateral displacement prevented, substantially as described.

4. The combination of truck side bearing with springs, side-bearing equalizer, link, and truck-equalizer, substantially as described.

5. The combination of truck side bearing with springs, plate, side-bearing equalizer,

link, and truck-equalizer, substantially as described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of two witnesses, this 5th day of August, 1889.

WALDO H. MARSHALL.

Witnesses:

JAMES C. MCSHANE,

H. H. ALGER.