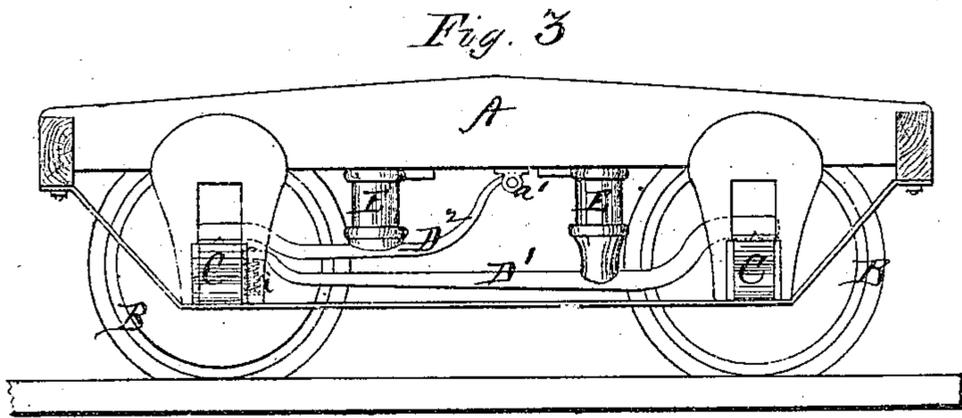
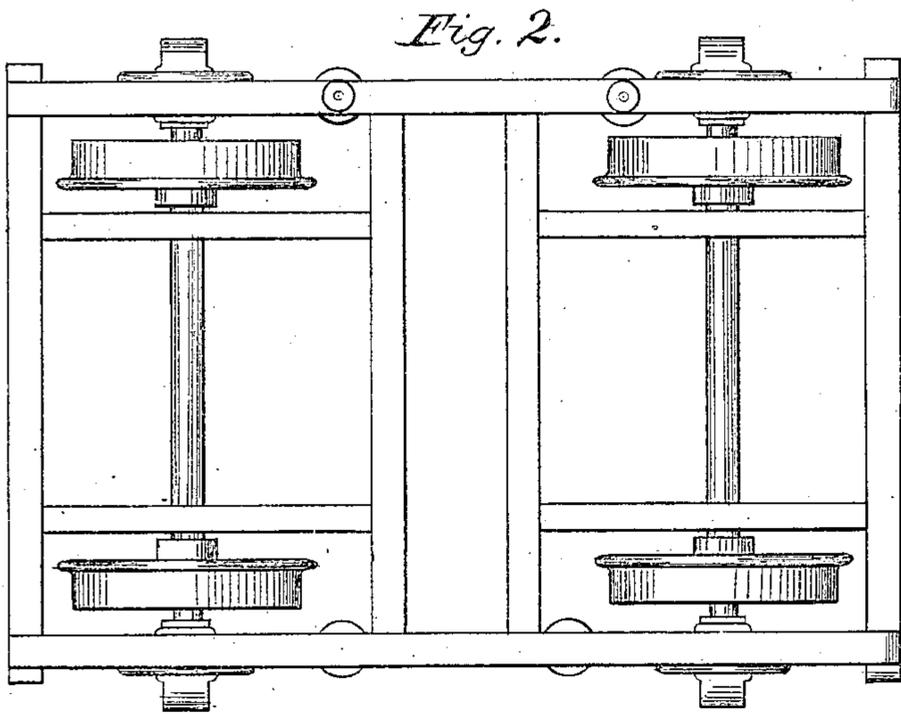
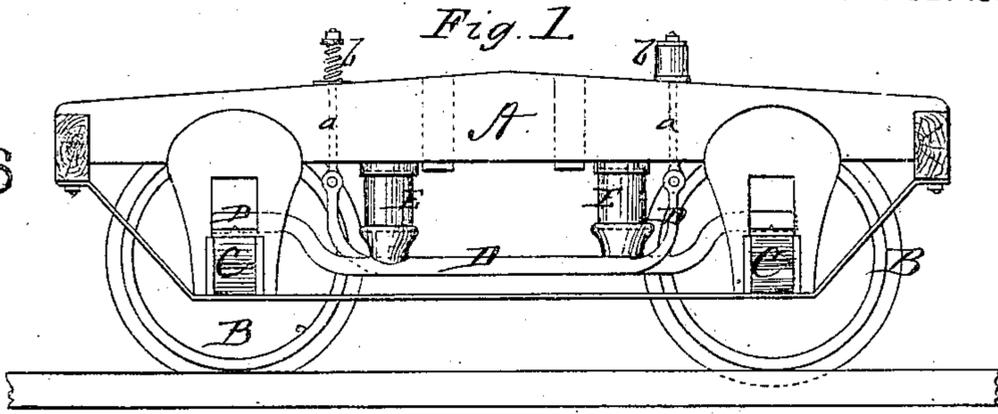


**ADDISON OVERBAGH.**  
*Improved Car Trucks.*

PATENTED JUN 28 1870

L04876



Witnesses:  
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*Addison Overbagh*  
*per*  
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 Atty.

# United States Patent Office.

ADDISON OVERBAGH, SCRANTON, PENNSYLVANIA.

Letters Patent No. 104,876, dated June 28, 1870.

## IMPROVEMENT IN EQUALIZING-BARS FOR RAILWAY CAR-TRUCKS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, ADDISON OVERBAGH, of Scranton, in the county of Luzerne and in the State of Pennsylvania, have invented certain new and useful Improvements in Car-Trucks; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon making a part of this specification.

The nature of my invention consists in the construction and arrangement of a "compensating equalizer for railroad trucks," as will be hereinafter fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a side elevation of a railroad car-truck with my compensating equalizers attached;

Figure 2 is a plan view of the same; and

Figure 3 is a side view, showing other modes of applying the equalizer.

A represents the frame of the truck;

B B, the wheels; and

C C, the journal-boxes for said wheels, all constructed in any of the known and usual ways.

On top of each journal-box C rests one end of the equalizing bar D, which passes under the fulcrum spring E placed on the under side of the frame.

The other end of the bar D is connected by joint-bolt *a* with the spring *b* on top of the frame, the bolt *a* passing through the same. The other bar on the same side of the truck crosses the first bar, as shown in fig. 1, it being hung and acting precisely in the same manner on the other journal-box.

The gum or other spring E, being the fulcrum for its bar D, can be set at such point in the radius as will best promote the riding of the car, and the use of the springs.

The particular advantage derived from the equalizing-bars D D is that the shock communicated to that end of the equalizer which lies directly over the journal, re-acts on the opposite end of said bar, and has the tendency to depress the opposite end of the truck, thereby compensating for this elevating of the end on which it receives its shock, and actually throwing the work on both springs when but one wheel is obstructed.

I do not confine myself to any particular kind of springs to use for those marked E and *b*, as any kind

of spring may be used which is deemed best adapted for the purpose. The mode of attaching the equalizer may also be changed, to conform to such kind of springs as may be employed.

The double equalizer may also be used in the manner shown in fig. 3. The bar D<sup>1</sup> resting on one journal-box C, passing under fulcrum-spring E, and its other end resting on a spring *i*, fitted in the jaw or pedestal in which the other journal-box is placed. The equalizer on the same side of the truck to be hung in precisely the same manner, and passing the former.

In fig. 3 I have also shown the manner of hanging equalizers on four-wheel cars, which are generally too long to admit of any of the ordinary equalizing-bars. The equalizing-bar D<sup>2</sup> rests on the journal-box, passes under fulcrum spring E, and is attached to joint *a*. The other journal-equalizing bar, &c., on the same side of the car or truck, to be hung in precisely the same manner.

The gain in this principle of hanging this kind of equalizer is the difference between the motion of the bar directly opposite its communication with the body of the car or frame, and the end which lies directly over the journal; that will also depend on the distance the spring fulcrum is placed relative to the ends of the bar.

In the drawing I have shown a single joint at one end of the equalizer, but it may be necessary to use a double joint, to allow for the motion of the bar.

Having thus fully described my invention,

What I claim as new, and desire to secure by Letters Patent, is—

1. The combination of the journal-boxes C C, bar D<sup>1</sup>, fulcrum-spring E, and spring *i*, substantially as and for the purposes herein set forth.

2. The combination of the journal-box C, bar D<sup>2</sup>, fulcrum-spring E, and joint *a*, all substantially as and for the purposes herein set forth.

3. The bars D D, having one of their ends resting upon the inclosed journal-boxes C C, extending parallel to each other under the truck-beam, and under the springs E E, and hinged at their other ends to a bar, *a*, passing up through the truck-beam, and through the springs *b b*, all substantially as set forth.

In testimony that I claim the foregoing, I have hereunto set my hand this 23d day of February, 1870.

ADDISON OVERBAGH.

Witnesses:

C. L. EVERT,

C. W. HARTLEY.