

W. C. ALLISON.
Car-Brakes.

No. 157,776.

Patented Dec. 15, 1874.

FIG. 1.

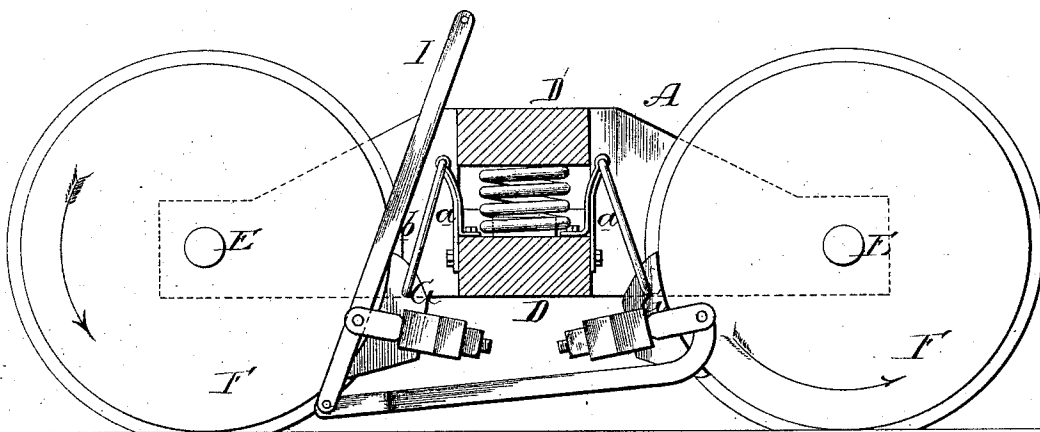
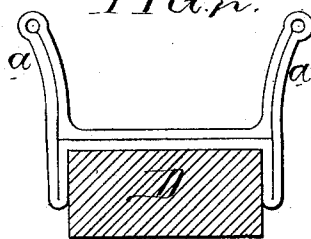


FIG. 2.



Witnesses,
Harry Smith,
Hubert Howson

William C. Allison
by his Atty.
Harrison and son

UNITED STATES PATENT OFFICE.

WILLIAM C. ALLISON, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO
HIMSELF, J. W. ALLISON, AND T. E. ALLISON, OF SAME PLACE.

IMPROVEMENT IN CAR-BRAKES.

Specification forming part of Letters Patent No. **157,776**, dated December 15, 1874; application filed
October 22, 1874.

To all whom it may concern:

Be it known that I, WILLIAM C. ALLISON, of Philadelphia, Pennsylvania, have invented an Improvement in Car-Brakes, of which the following is a specification:

The object of my invention is to maintain the shoes of braking apparatus in the same vertical position in relation to the wheels, whether the car is lightly or heavily loaded, thereby overcoming difficulties in operating the brakes, as explained hereafter.

This object I attain by suspending the brake-shoes from the fixed bolster, as shown in the accompanying drawing, in which—

Figure 1 represents a sectional view of a truck with my improvement, and Fig. 2 a detached view of the bracket from which the brake-shoes are suspended.

A represents one of the side frames of the truck, the two frames being connected together by cross-bars and by the central fixed bolster D in the usual manner, and having the ordinary axles E and flanged wheels F. On springs H, bearing on the fixed bolster, rests the movable bolster D', to which it has been usual to suspend the brake-shoes G, so that the vertical position of the latter varied in accordance with the load on the car.

In applying the brakes on a heavily-loaded car the shoes would be necessarily depressed, and a greater movement would have to be imparted to the brake-lever I than if the shoes occupied a more elevated position when the car is relieved of its load; hence adjustments

of the braking-tackle to suit the different positions of the shoes became necessary.

Another evil resulting from the suspension of the brake-shoes from the movable bolster is this: In arresting a heavily-loaded car the shoes would be applied low down to the peripheries of the wheels, and when the car was relieved of part of its load the recoil of the springs to raise the body of the car would also be exerted to elevate the shoes, which would consequently be so tightly jammed to the wheels that an excessive strain had to be imparted to the braking-tackle, and the releasing of the brakes was consequently a difficult matter.

These defects are obviated by securing brackets *a* to the fixed bolster D, and connecting the brake-shoes G to the brackets, by means of links *b*, as shown in the drawing, so that the said brake-shoes will always retain the same vertical position in relation to the wheels, whether the car is lightly or heavily loaded.

I claim as my invention—

The combination, in a car-truck, of a fixed bolster, D, and brake-shoes G suspended from said bolster, substantially as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WILLIAM C. ALLISON.

Witnesses:

HARRY SMITH,
HUBERT HOWSON.