

J. C. GOVE.
 Railroad Car Brake.

2 Sheets—Sheet 1.

No. 113,290.

Patented April 4, 1871.

Plate 1.

Fig. 1.

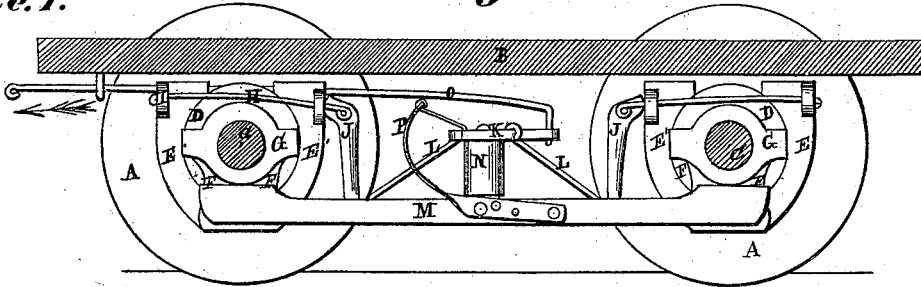


Fig. 2.

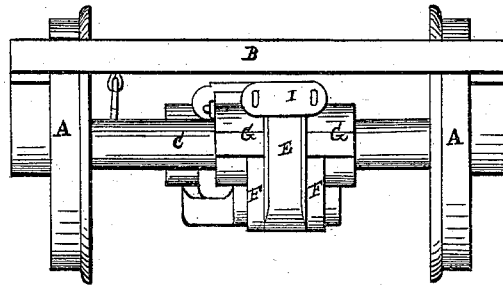
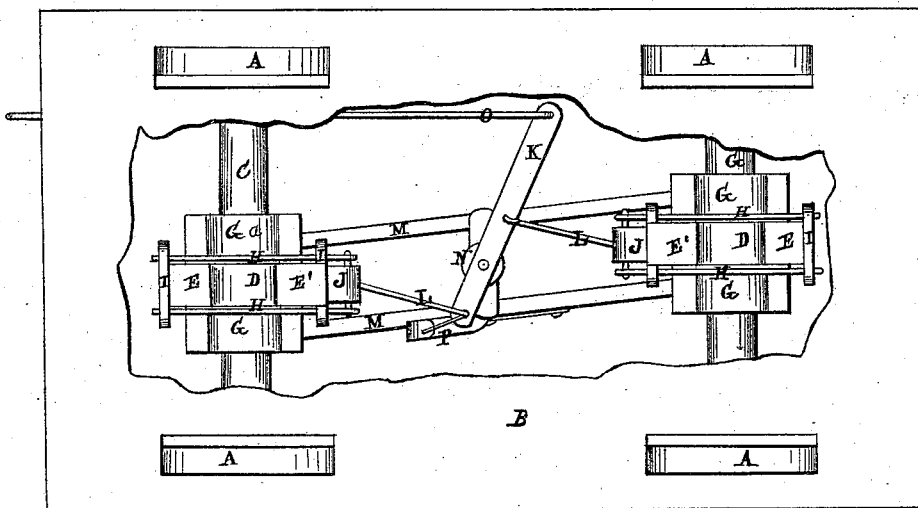


Fig. 3.



Witnesses.

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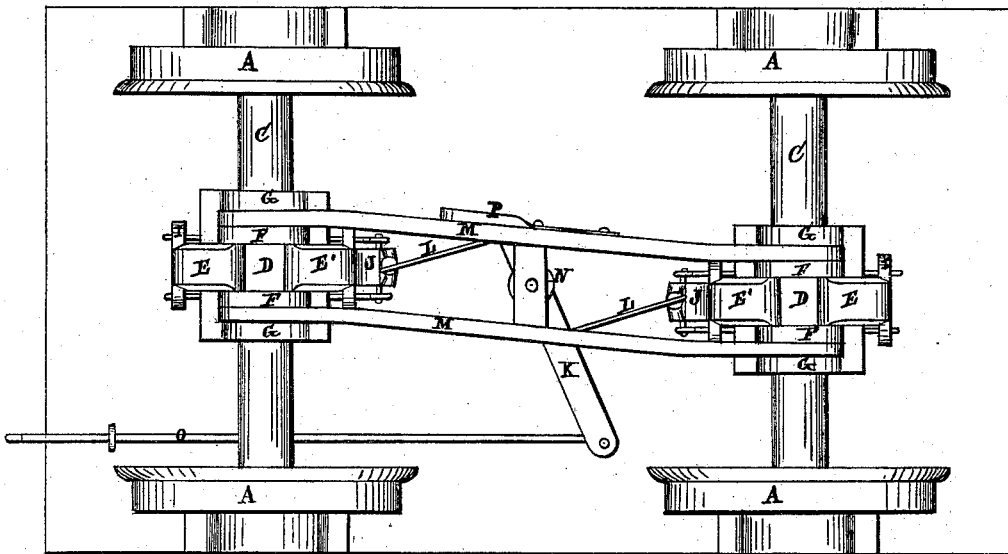
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Fig. 4.



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JOHN C. GOVE, OF CLEVELAND, OHIO.

Letters Patent No. 113,290, dated April 4, 1871.

IMPROVEMENT IN RAILROAD-CAR BRAKES.

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, JOHN C. GOVE, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Railroad-Car Brakes, of which the following is a description, reference being had to the accompanying drawing making part of this specification.

Figure 1 is a side elevation of a car-truck, to which the brake is attached.

Figure 2 is an end view of the truck and brake.

Figure 3 is a plan view.

Figure 4 is a view of the under side.

Like letters of reference refer to like parts in the different views.

The nature of this invention relates to a brake for street-railroad cars. The object thereof is to obtain an immediate stopping of the car, when desired, by the use of lever-clamps embracing a smooth collar or wheel secured to the middle of the axles; said clamps being actuated by a lever operated by an arrangement of rods and a sway-bar, as hereinafter more fully described.

In the drawing, fig. 1, A A represent the wheels of the car, of which B is the platform, and C, figs. 2 and 3, the axles.

In the middle of the axle is secured, in a permanent manner, a drum, D, fig. 1, having a plain peripheral surface.

Said drum is embraced by a pair of clamps or rubbers, E E', fig. 1, the lower ends of which are pivoted in the stays F' depending from the axle, to which they are attached by the boxes G.

The upper ends of the clamps are secured to each other by a pair of rods, H, which, together with the cross-pieces I, form a kind of yoke, whereby the clamps or the two sections thereof are held in close relation to and around the drum.

To the inner end of said rods is pivoted a lever, J, fig. 1, the position of which, in its relation to the clamps, is such that its shorter arm is in contact with the upper end of one member of the clamp, as shown in the drawing, whereas the lower end of the lever is attached to a sway-bar, K, fig. 3, by means of a rod, L, whereby it is operated, as will presently be shown.

A like arrangement of a drum, clamps, and lever is attached to each axle in the same way, and in the same manner connected to the sway-bar.

The two clamps which constitute the brake are operated at once upon the two drums which they embrace.

The two brakes are connected to each other by the links M, which also serve as a support for the stand-

ard N, to which the sway-bar is pivoted for operating the brakes in the manner as follows:

The rod O, fig. 1, attached to the extreme end of the sway-bar, reaches forward to the end of the car, where it is secured to the upright shaft and hand-wheel usually employed for operating the brakes. Now, on drawing the rod forward in direction of the arrow, the sway-bar will be so actuated as to draw upon the lower end of the levers J, thereby pressing their upper or short arm powerfully against the upper end of the members E' of the clamps, which will force the end of the clamp E' against the face of the drum, and at the same time, acting as a lever, draw the member E of the clamp against the opposite side of the drum, thereby powerfully embracing the drums between the two members of each of the clamps, which will arrest the revolution of the axles and stop the car immediately or gradually, as the force exerted upon the rod O may be applied.

On relieving the drag-rod O from its confinement, the clamps will be loosened from their embrace of the drums by a spring, P, attached to the opposite end of the sway-bar, which will cause a reverse movement of the bar and consequent reaction of the clamps upon the drums, thereby allowing the axles freedom to run and the car to move forward.

This arrangement of levers for operating the clamps upon the drums which they embrace is such that but little power is required for actuating them, rendering the application of the brakes easy and immediate, so that the car can be stopped at once, with but little effort on the part of the brakeman.

The position of the brake being midway between the truck-wheels, it is not liable to be obstructed by dirt from the road, as brakes applied to the car-wheels, sometimes are; hence its application is more certain and effective.

Claims.

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

1. The clamps E E', pivoted below the axle, in combination with the drum D, levers J, and axle, substantially as and for the purpose set forth.

2. The brake, consisting of the drum D, clamps E E', and levers J, suspended upon the axles by means of boxes G, substantially as and for the purpose set forth.

JOHN C. GOVE.

Witnesses:

W. H. BURRIDGE,
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