

(No Model.)

P. LORD.  
CAR BRAKE.

No. 262,800.

Patented Aug. 15, 1882.

Fig. 4.

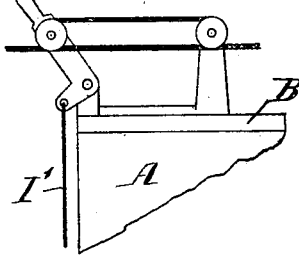


Fig. 1.

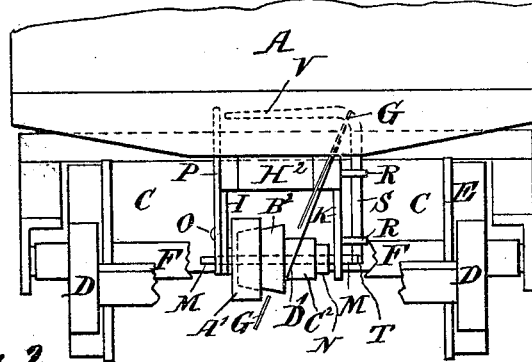


Fig. 3.

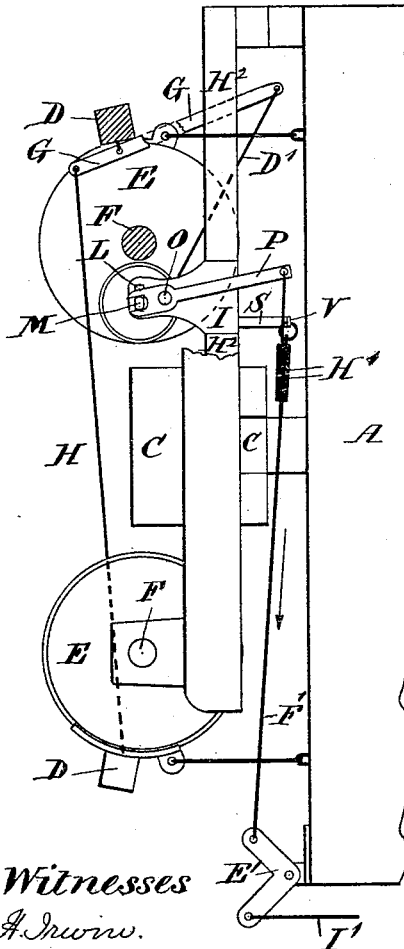
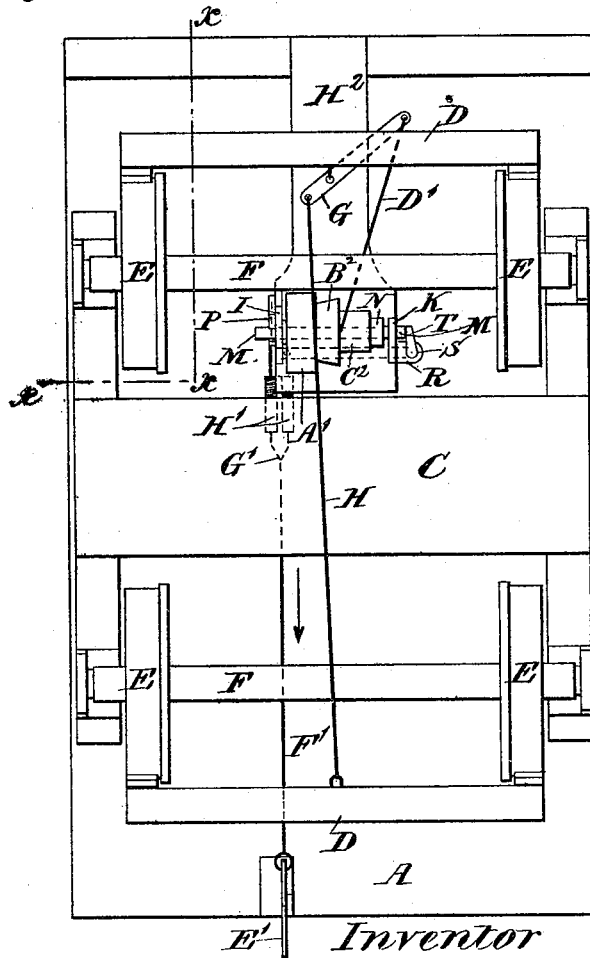


Fig. 2.



Witnesses  
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Inventor  
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By his Attorney  
Charles E. Simpson

# UNITED STATES PATENT OFFICE.

PETER LORD, OF MONTREAL, QUEBEC, CANADA, ASSIGNOR OF TWO-THIRDS TO JEAN BAPTISTE VINET AND AVILA SERAPHIN VINET, BOTH OF SAME PLACE.

## CAR-BRAKE.

SPECIFICATION forming part of Letters Patent No. 262,800, dated August 15, 1882.

Application filed July 3, 1882. (No model.)

*To all whom it may concern:*

Be it known that I, PETER LORD, of the city and district of Montreal, Province of Quebec, Canada, have invented certain new and useful Improvements in Brakes for Railway-Cars; and I do hereby declare that the following is a full, clear, and exact description of the same.

This invention has reference to the construction and arrangement of a cheap brake to be used on cars of railways, arranged so that the brakes may all be operated from either end of the train and obviate the necessity, at present existing in freight-trains, of having men travel over the top of the cars and apply the brakes separately. It may also serve as a signal to the engine-driver in case of the train or a portion of it breaking loose, if it is desired to so arrange my said invention.

In the drawings hereunto annexed similar letters of reference indicate like parts, and Figure 1 is an end elevation of a car with my invention applied thereto. Fig. 2 is a plan of Fig. 1 inverted. Fig. 3 is a side elevation of Fig. 2 with the part cut off by the lines *x x* removed, thereby being, so far, in part a sectional elevation. Fig. 4 shows a side elevation of upper portion of mechanism for working the brakes.

Letter A is the body of the car, a portion only of which is shown. B is the cover or top. C is the center beam of the truck; D, the brakes; E, the wheels, and F the axles, all arranged as heretofore in use.

To one of the brakes D is attached the ordinary lever, G, and to this lever a rod, H, so that by pulling on the upper end of the lever the brakes are applied to the wheels in the ordinary manner; and my invention consists in the means that I am about to describe by which the lever G is operated.

To the end of the body of the car, and to the center beam, C, is attached a beam or carrying-bar, H<sup>2</sup>. The connection between beam C and bar H<sup>2</sup> is not shown; but it may be made by any suitable knee or bracket. On bar H<sup>2</sup> are secured two brackets, I and K. The bracket I is provided with a slotted opening, L, in which is placed a bar, M. This bar passes

through an eye or ordinary round opening in the bracket K, and extends, as shown, beyond each of the brackets.

N is a collar made in one with or secured on bar M. I would here explain that the bar M is round in cross-section from its end at K up to near the bracket I. The part near to and in the slot L and extending beyond it is flattened, as shown in Fig. 4.

To bracket I is pivoted at O a forked lever, P, so that by turning the lever a few degrees upon its pivot back and forward it causes that end of the bar M which is engaged with it to move near to and farther from the axle F, while the end in bracket K remains comparatively stationary.

On the bracket K two eyes, R, are formed, in which is carried a vertical shaft, S, on the lower end of which is formed a short lever, T, to act upon the end of the bar M and force it in a transverse direction to the longitude of the car. The upper end of shaft S is bent over, forming a longer lever, V. (Shown by dotted lines in Figs. 1 and 2.)

On the bar M is placed a loose pulley, A', having a conical recess in its side, as indicated by dotted lines in Fig. 1; also, on said bar M is placed a pulley, B<sup>2</sup>, having a periphery made conical to agree with and partly enter into the said conical recess in pulley A', so that the two form a friction-coupling when brought into contact and pressed together.

C<sup>2</sup> is a neck made in one with pulley B<sup>2</sup>, and to it is secured the end of a line or chain, D', attached to the upper end of the lever G, so that by simultaneously pulling upon the ends of the levers P and V the periphery of the pulley A' is pressed upon the axle and the conical pulley B<sup>2</sup> is pressed into the conical recess in A', whereby the two pulleys are caused to revolve by the revolutions of the axle, thus causing the chain D' to be wound around the neck C<sup>2</sup> and cause the lever G to apply the brakes.

The operation of the levers P and V is caused by a bell-crank, E', and rod F'. As the motion of the two levers may not be quite equal, I make the rod with a forked end, as shown at G', and to each branch of the fork I attach a

spiral or other spring, H', and by suitable extensions of the forked ends I attach them to their respective levers. The bell-crank E' is operated by a rod, I', brought down from the top of the car, and in every way substantially similar to that shown in Letters Patent of the United States, No. 248,048, granted me 11th October A. D. 1881, and the arrangement of a cord operating the whole of the brakes of a train may be the same as described in said patent.

To cause a greater friction of the periphery of pulley A' and the axle F, a rubber band or any ordinary means for this purpose may be used.

It will be seen that one great advantage of this form of brake is that when the pulley A' is removed from contact with the axle all the parts are stationary, and no useless consumption of power or of the working parts by friction will take place.

What I claim, and wish to secure by Letters Patent, is as follows:

1. The combination of the wheels and axles of a car and brakes operated by a lever, G, as described, with bar M, pulleys A', having conical recess, as described, conical pulley B<sup>2</sup>, having neck C<sup>2</sup>, actuating-chain D', and levers P and T, operated as described, the whole substantially as shown and set forth.

2. The combination of the bar M, and levers P and T, each provided with an operating mechanism and operating the bar M, as described, with pulley A', having conical recess, conical pulley B<sup>2</sup>, having neck C<sup>2</sup>, and axle F, whereby the chain D' and lever G are operated substantially as described, for the purposes set forth.

PETER LORD.

Witnesses:

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