(No Model.)

F. O. LANDGRANE.

CAR BRAKE

No. 321,507. Patented July 7, 1885.

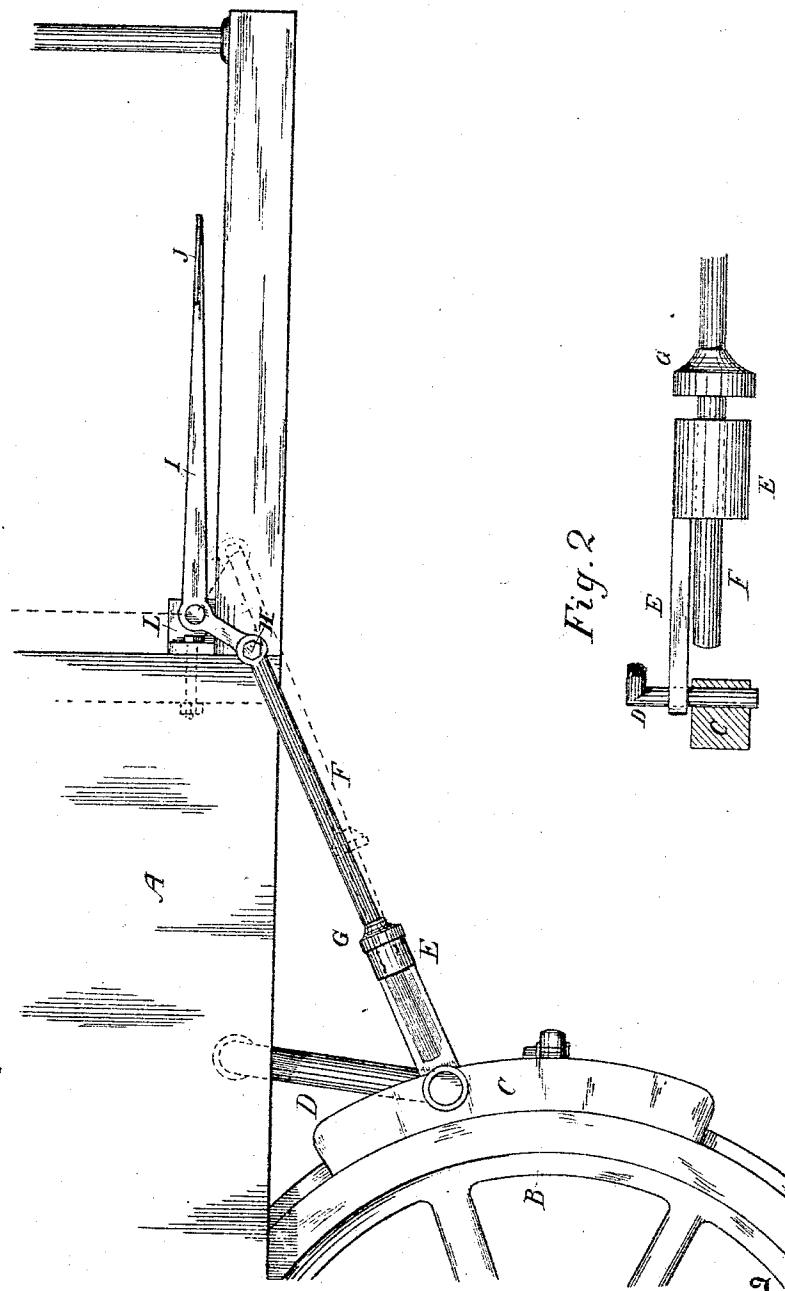


Fig. 1.

Fig. 2.

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UNITED STATES PATENT OFFICE.

FRANK O. LANDGRANE, OF SAN FRANCISCO, CALIFORNIA, ASSIGNOR OF ONE-HALF TO MILTON E. WILLIS, OF SAME PLACE.

CAR-BRAKE.

SPECIFICATION forming part of Letters Patent No. 321,507, dated July 7, 1885.

Application filed January 16, 1885. (No model.)

To all whom it may concern:

Be it known that I, FRANK O. LANDGRANE, of the city and county of San Francisco, State of California, have invented an Improvement in Safety-Brakes for Street-Railway Cars; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to a safety-brake for street-railway cars; and it consists of a supplemental mechanism attached to the brake-shoe, and having a foot-lever by which it may be operated, so as to apply the brake to the car-wheels in case the chain or regular connections become broken or disarranged.

Referring to the accompanying drawings for a more complete explanation of my invention, Figure 1 is a side elevation of the front portion of a horse-car, with a section of a portion showing the application of my device. Fig. 2 is a plan view of the mechanism of the device.

My invention is more especially applicable to the cars which are drawn by a single horse, and which have a brake attachment only at the front end of the car. When this breaks, or other portion of the mechanism becomes disarranged, there is no way for applying the brake, and if such an accident occurs upon a downgrade it may result seriously. My invention is designed to supply a means for applying the brake in case of such an accident, and which at other times will not be in use.

In the drawings, A is the body of a street-car, and B one of the forward wheels, upon which it is supported in the usual manner.

C is the brake-shoe, which is suspended from a hanger, D, suitably journaled so that it may swing backward until the shoe is clear of the wheel when the brake-lever is released.

E is a hollow sleeve, one end of which is fixed to the link from which the brake-shoe is hung, and it projects forward, so as to receive the end of a rod, F, which slips into it, and has a collar or stop, G, which may rest against the outer end of the sleeve E when the rod is pushed backward, and thus serve to push it back and press the brake-shoe against the wheel. When the rod is drawn forward, it slides loosely in the sleeve, and the collar G is drawn far enough away from the end of the sleeve to allow the brake-shoe to move backward and forward without any effect upon the rod, so that while the ordinary brake attachments are in operation the brake will be moved by them, and the rod and its attachments will be out of service.

The outer end of the rod is pivoted at H to the short arm of a lever, I, the long arm of which extends forward, and has a foot-piece, J, upon which the driver may place his foot to operate it when necessary. When this lever is not in use, it is turned up, as shown in dotted lines, so as to stand vertically alongside the front end of the car and be out of the way, and when in this position the rod F will be drawn forward, so that the collar or stop G is out of contact with the sleeve E, as before described. When the lever is turned down, the rod F will be pushed backward until the collar G comes in contact with the forward end of the sleeve E, and it will act through the sleeve to force the brake-shoe against the wheel. The fulcrum-pin about which the lever I turns passes through a hole in a lug, L, which is bolted to the side of the car or the platform in convenient place.

By this construction it will be seen that I have a supplemental safety connection with the brake which is not in use and is out of the way while the regular brake works properly, and in cases of accident it may immediately be brought into service.

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

1. In a street-car, the combination of a suspended swinging brake-shoe and suspending-link, a rod sliding loosely within the sleeve, and having a collar or stop upon it, which may be drawn away from or brought in contact with the end of the sleeve, and a lever having one arm connected with the end of the rod, and the other within reach of the operator, substantially as herein described.

2. A suspended swinging brake-shoe with a hollow sleeve, a rod sliding therein and having a collar or stop fixed to it, as shown, the operating-lever connected with the rod having the fulcrum-pin passing through a lug which is fixed to the front of the car or platform, substantially as herein described.

In witness whereof I have hereunto set my hand.

FRANK O. LANDGRANE.

Witnesses:
S. H. NOURSE,
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