

## Car Brake.

Patented Sept. 18, 1866.



Jas Elford  
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# UNITED STATES PATENT OFFICE.

J. WYATT REID, OF NEW YORK, N. Y.

## IMPROVEMENT IN CAR-BRAKES.

Specification forming part of Letters Patent No. **58,136**, dated September 18, 1866.

*To all whom it may concern:*

Be it known that I, J. WYATT REID, of the city, county, and State of New York, have invented a new and Improved Mode of Constructing and Operating the Brakes of Railroad-Cars; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings and the letters of reference marked thereon, same letters representing like parts in both figures, of which—

Figure 1 is a lateral elevation, and Fig. 2 a vertical plan of the under side of a car, those parts only being colored which have reference to the application.

The nature of my invention consists in attaching a bar of flat iron, or its equivalent, to the lower end of an ordinary brake, and carrying it as near as practicable to the rails, (see letters *r r r r*, Fig. 1,) so that in case a man or any other obstruction should fall in front of the wheels it would be picked up and thrown on one side by the onward movement of the car.

Much loss of life and limbs, especially on street-cars, will be prevented by this improvement.

In operating the brakes I use the ordinary hand-wheel *a a*, Figs. 1 and 2, although for street-cars a vertical lever might be substituted, to afford the driver a fulcrum to press against in pulling up his horses.

The chain *b*, which winds up on the vertical bar of the hand-wheel, connects with a rod, *c*, which connects with another chain, *d*, which

passes through a sheave or pulley, *e*, attached to the cross-bar of the hinder pair of brakes, *h*, of, say, the forward truck. The chain, after passing over the pulley, connects with another rod, *f*, extending to the forward pair of brakes, *g*, the action being that as the chain is wound up the brakes are pulled together with less loss of power than by the ordinary mode.

The brakes on the hinder wheels are operated at the same time as the first pair, being attached by a rod, *J*, extending underneath the car, connected with the chain *K* and pulley *l* and rod *m*, as in the first pair. The hand-wheel at the opposite end of the car operates in the same manner upon a separate set of rods, chains, and pulleys, set in reverse order.

To avoid confusion, only one set is shown in Fig. 1; but both sets appear in Fig. 2.

A spiral spring may be employed to take up any slack in the chains.

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

1. The combination of chains, rods, and pulleys for operating the brakes, the whole substantially as described.

2. The combination, with the car-brakes, of the guards *r r*, constructed and applied in the manner and for the purpose set forth.

J. WYATT REID.

Witnesses:

JAS. ELFORD,  
THOS. G. FLANDREAU.