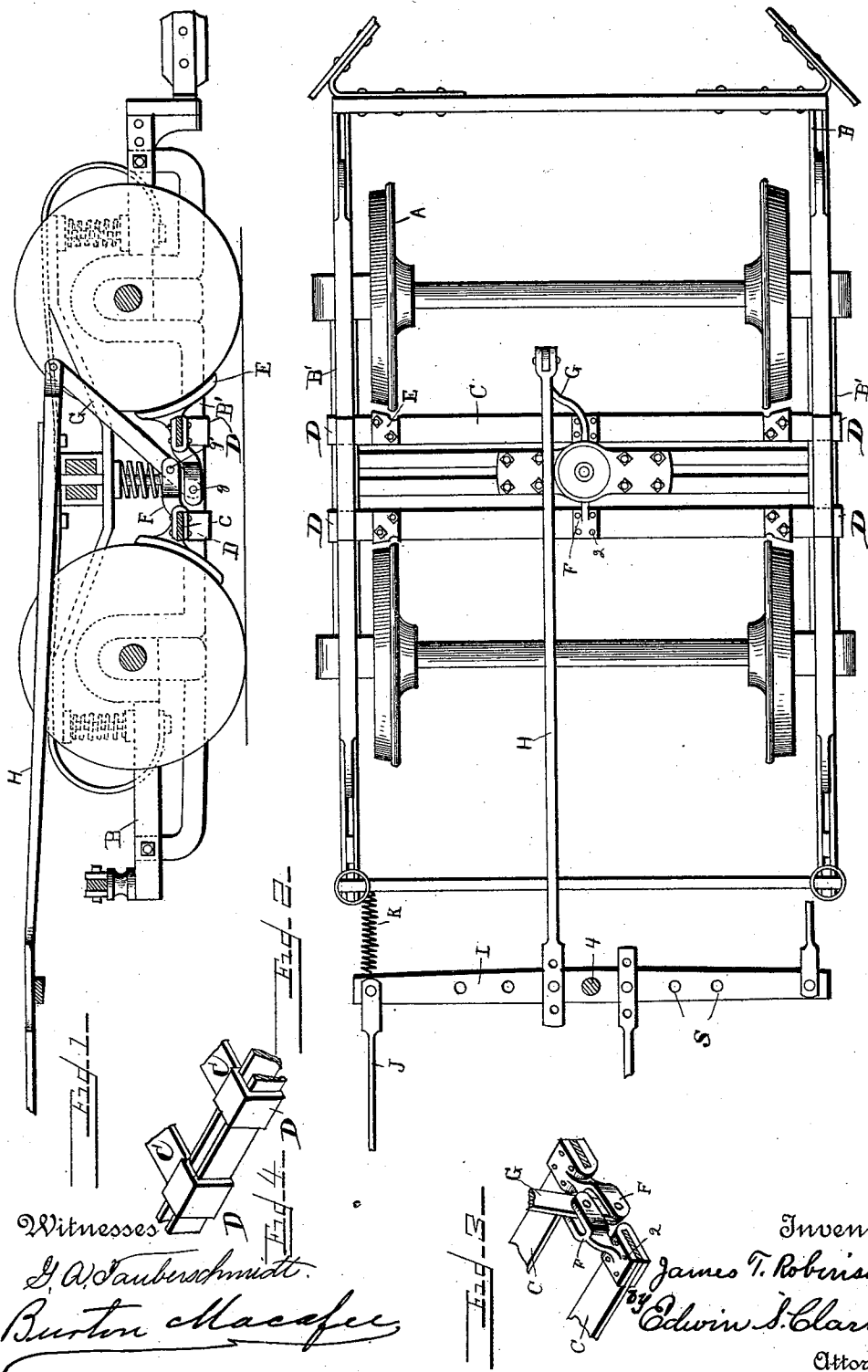


(No Model.)

J. T. ROBINSON.
CAR BRAKE.

No. 465,389.

Patented Dec. 15, 1891.



UNITED STATES PATENT OFFICE.

JAMES T. ROBINSON, OF ALTOONA, PENNSYLVANIA.

CAR-BRAKE.

SPECIFICATION forming part of Letters Patent No. 465,389, dated December 15, 1891.

Application filed March 28, 1891. Serial No. 386,743. (No model.)

To all whom it may concern:

Be it known that I, JAMES T. ROBINSON, a citizen of the United States, residing at Altoona, in the county of Blair and State of Pennsylvania, have invented certain new and useful Improvements in Car-Brakes; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to car-brakes, and has for its object to produce a simple yet effective brake and one whose position is always the same and grips the wheel in the proper place whether there be a light or heavy weight carried; and with these objects in view it consists in the parts and combination of parts, as will be more fully set out in the following description and claims.

In the drawings, Figure 1 is a central longitudinal sectional view through a truck with my brake attached. Fig. 2 is a top plan view of the same. Fig. 3 is a detail view. Fig. 4 is a detail view.

A represents the wheels of a truck, and B the yoke-frames of the same connected by means of connecting-bars B'.

Care the brake-beams, which may be of any approved pattern; but in the present instance they are shown in the drawings as flat. The ends of these brake-beams slide on the connecting-bars B' and are held down on the same by means of brake-stops D, being rigidly secured to the brake-beams, and slide with them on said connecting-bars. Thus it will be observed that no brake-hanger is necessary and that the brake is not suspended from the top of the truck, as is usually the custom or practice. Consequently the brake is always in the same position and grips the wheel in the proper place regardless of the weight of the load carried, be it heavy or light.

E are the brake-shoes, which are in a suitable manner connected to the brake-beams.

F are forked levers, the forked ends of which are secured by bolts 2 to the brake-beams C. The other ends of these levers are slightly bent upward into a higher horizontal plane than the forked ends.

G is the brake-lever, which hangs in the middle and between the brake-beams and is connected to the forked levers F by means of

pivot-pins *g* and *g'*. The said lever G is bent into a reversed or substantially compound curve, as shown in Fig. 2, in order that its upper end will extend beyond the pivot-plate of the truck, a pivotal truck being shown:

H is a rod having one end U shaped and connected to the brake-lever G.

I is a lever pivoted at 4 to the car-body and provided with a series of holes S. The other end of the rod H is pivoted to this lever I and is provided with a series of holes in order that any slack in the mechanism may be readily taken up.

Secured to the outer ends of the lever I are pull-rods J, which are extended to either end of the car.

K is a spiral spring, which may be located in different places (but preferably at the end of the lever I) and connected with the car-body and lever I, thus serving to draw the levers back and prevent the brake-shoes from rattling against the wheels.

The operation is as follows: Power, being applied to the rods J, is transmitted through lever I to the rod H, which, being connected to the brake-lever G, operates the same, and the brake-beams, which are connected to the lever G by means of the fork-levers F, are thus forced toward the wheels, carrying the brake-shoes with them, said beams sliding on the connecting-bars B' and held there by means of the brake-stops D. The stops D are provided with lugs which prevent the brake-beam from sliding back more than one-half an inch from the wheels. The brake-lever G, as above stated, hangs in the center of the brake-beams and, using one of the brake-beams as its fulcrum, pries the brake-shoes against the wheels with great power. It is obvious that this brake may be operated from either end of the car.

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

1. In a car-brake, the combination, with the brake-lever, of the levers F and the brake-beams, said brake-beams having their bearing and sliding on the side frame of the truck to which they are attached, brake-shoes attached directly to said brake-beams, substantially as described.

2. In a car-brake, the combination, with the brake-lever, of levers F and brake-beams, said

beams having their bearing and sliding on the side frame of the truck to which they are attached, brake-shoes attached directly to said brake-beams, and means for holding said
5 beams down on the side frames of the truck and limiting their movement, substantially as described.

3. In a car-brake, the combination, with the lever I and rod H, of the brake-lever and levers
10 F, pivotally secured to said brake-lever, the brake-beams having their bearing and sliding on the side frames of the truck to which they may be attached, said beams being connected

to the levers F, brake-shoes connected directly to said beams, and brake-stops D, connected to the brake-beams and sliding on the side frames of the truck, said stops being provided with lugs, whereby the movement of the brake-beams is limited, all substantially as described.

In testimony whereof I affix my signature in the presence of two witnesses.

JAMES T. ROBINSON.

Witnesses:

WILLARD P. BEARDSLEY,
C. YERGER.