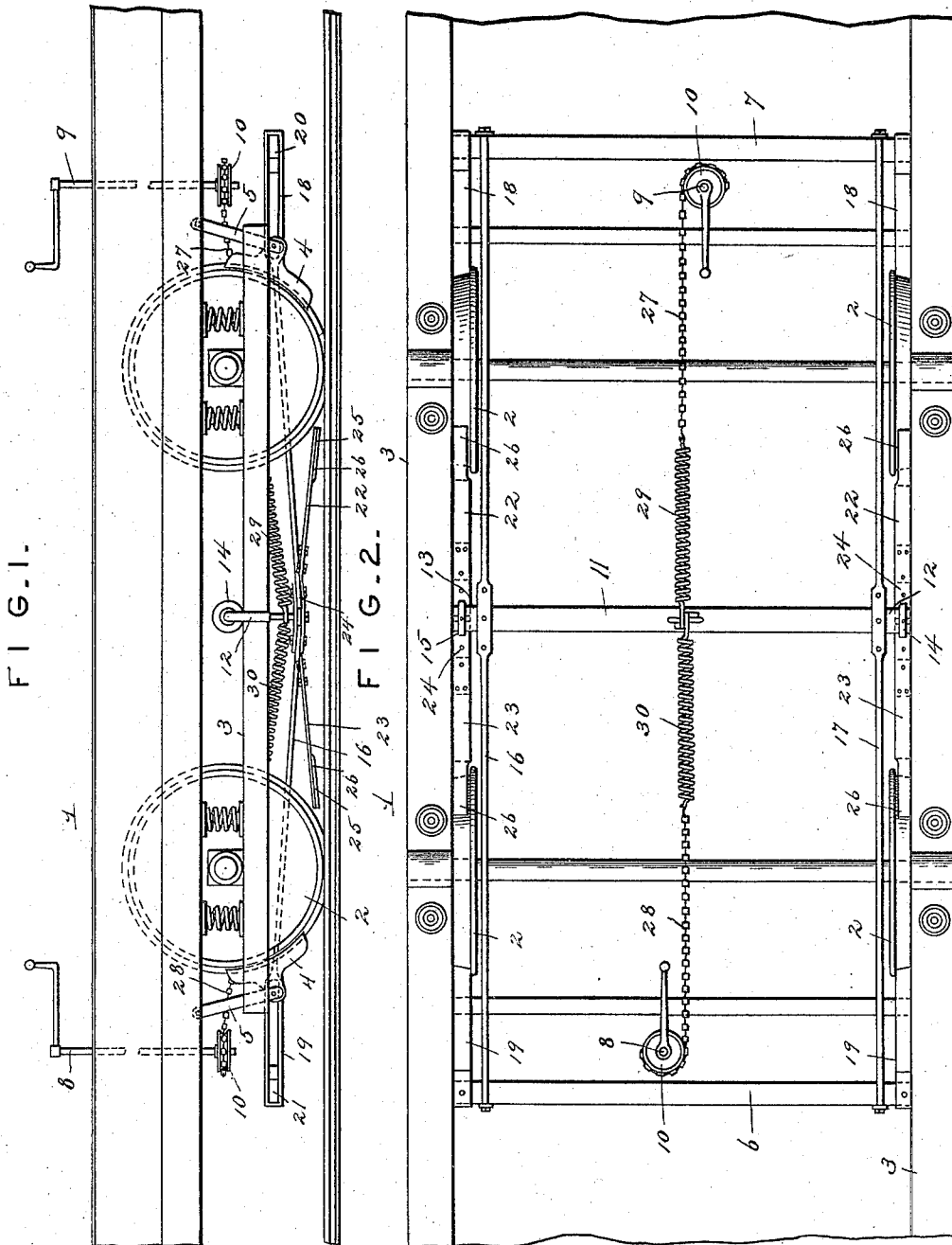


C. L. HARRYMAN.
RAILROAD BRAKE.

Patented Feb. 23, 1897.



Witnesses
Harry L. Amer.
L. M. Graves.

Inventor,
Charles L. Harryman,
by John Wedduburn
Attorneys

UNITED STATES PATENT OFFICE.

CHARLES L. HARRYMAN, OF LOUISVILLE, KENTUCKY, ASSIGNOR OF ONE-HALF TO WILLIAM T. PYNE, OF SAME PLACE.

RAILROAD-BRAKE.

SPECIFICATION forming part of Letters Patent No. 577,655, dated February 23, 1897.

Application filed July 14, 1896. Serial No. 599,139. (No model.)

To all whom it may concern:

Be it known that I, CHARLES L. HARRYMAN, a citizen of the United States, residing at Louisville, in the county of Jefferson and State of Kentucky, have invented certain new and useful Improvements in Railroad-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.

My object is to provide a more simple and cheap car-brake which will be extremely powerful, being applied to the rail and wheel in a peculiar manner, and one which will be adapted to cooperate with the ordinary form of brake, so that the car can be stopped in an exceedingly short distance and space of time.

Having this object in view, my invention consists of a car-brake comprising certain novel features and combinations more fully described in the following description and pointed out in the appended claims.

In the accompanying drawings, Figure 1 is a side elevation of a car-truck equipped with my improved brake, and Fig. 2 a sectional plan view.

The numeral 1 designates an ordinary car-truck, and 2 the wheels thereof, while 3 designates the rails of the truck. The ordinary brake-shoes 4 are employed, which are suspended from the car by pivoted links 5.

The usual brake-beams are designated by numerals 6 and 7, while 8 and 9 represent brake-spindles which are provided with the usual winding-wheels 10 at their lower ends.

The numeral 11 designates an auxiliary brake-beam which is provided with upwardly-extending arms 12 and 13, to which are journaled respective rollers 14 and 15, which ride on the lower side bars of the truck, so that the auxiliary cross-beam is adapted for longitudinal movement. Brake-rods 16 and 17 are connected to the auxiliary brake-beam near its ends and are formed into open links 18 and 19 at their free ends. These links straddle the pivotal connection between the brake-shoe and its link, and they receive the ends of the brake-beams. Connected to the inner edge of each brake-beam and at the

ends thereof are respective rubber blocks 20 and 21, which come in engagement with the brake-shoe when the auxiliary brake-beam moves far enough so that the impact is cushioned. At each side of the truck there is located two levers 22 and 23, which are connected to the auxiliary brake-beam by upper and lower plates and bolts 24 and extend downwardly toward the track and wheels. A friction brake-shoe 25 is connected to the free end of each arm, and this brake-shoe is constructed of a piece of sheet or plate metal of the same width as the wheel-tread and provided with a downwardly-bent flange 26, which is adapted to fit in between the flange of the wheel and the rail when the brake is applied.

The numerals 27 and 28 designate chains which are connected to the drums or wheels of the brake-spindles, and strong coil-springs 29 and 30 connect these chains to the auxiliary brake-beam at the central point thereof.

Assuming that the brake-spindles are locked and the springs under tension, when the brakes are applied the operation is as follows: If, for instance, brake-spindle 9 is released, the tension will be taken from spring 30. The tension of spring 29 will cause the auxiliary brake-beam to be drawn toward the opposite end of the car and the friction-shoes of arms 23 thrown under the wheels and against the rails. This action will cause the wheels at the rear of the car to be lifted off of the rail, and the car will be stopped in an exceedingly short space of time. It will be observed that when the auxiliary brake-beam moves main brake-beam 7 is carried under with it and brought into engagement with the ordinary brake-shoes at that end of the car, so that said shoes are applied to the front wheel, thereby materially assisting in properly braking the car. When the car has been stopped, the released brake-spindle can be again operated and locked, so that the operation can be repeated whenever desirable.

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

1. In a car-brake, the combination with a movable brake-beam, of friction-shoes carried by said beam and adapted for insertion be-

tween the wheels and rails, a spring adapted for moving the brake-beam so as to throw the shoes into engagement with the wheels and rails, and means for keeping said shoes normally out of engagement with the wheels and rails.

2. In a car-brake, the combination with a movable brake-beam, of arms carried by said beam, friction-shoes connected to the arms and adapted for insertion between the wheels and rails, winding mechanism, a chain or cable connected to the winding mechanism, and a coil-spring connected to the brake-beam and the chain, said parts being so disposed and related that the winding mechanism keeps the shoes out of engagement with the wheels and rails, but upon said mechanism being released, the coil-spring throws them into engagement with said wheels and rails.

3. In a car-brake, the combination with a brake-beam, of arms connected to said beam, rollers journaled on the arms and adapted to ride on the car-truck, friction brake-shoes connected to the beam and adapted for insertion between the wheels and rails, and means for moving the brake-beam to throw said friction-shoes into engagement with the wheels and rails.

4. In a car-brake, the combination with a movable brake-beam, of arms connected thereto, friction brake-shoes consisting of plates provided with flanges which are connected to the arms, said shoes being adapted for insertion between the wheel-tread and flange and the rail, and means for moving the brake-beam to put the shoes in use.

5. In a car-brake, the combination with a movable brake-beam, of friction-shoes carried thereby which are adapted for insertion between the wheels and rails, mechanism for holding the brake-shoes out of engagement with the wheels and rails, means for automatically throwing said shoes into engagement with the wheels and rails, additional brake-shoes, and a connection between the brake-beam and the latter shoes whereby they are applied simultaneously with the friction brake-shoes.

6. In a car-brake, the combination with an

auxiliary movable brake-beam, of friction-shoes connected to said brake-beam and adapted for insertion between the wheels and rails at opposite ends of the car, means for moving the brake-beam from either end of the car so as to apply the shoes to either set of wheels, additional brake-shoes, and connections between said brake-shoes and the auxiliary beam whereby when the friction brake-shoes are applied to one set of wheels the other brake-shoes are applied to another set of wheels.

7. In a car-brake, the combination with a movable auxiliary brake-beam, of friction-shoes carried by said brake-beam and extending in opposite directions, being adapted for insertion between the wheels and rails at opposite ends of the car, additional brake-shoes, links connecting said shoes to the car-truck, said shoes being located at opposite ends of the car, and brake-rods connected to the auxiliary brake-beam and provided with open links adapted for engagement with the extra brake-shoes, whereby when the friction-shoes are applied to the wheels at one end of the car, the extra shoes are applied to the wheels at the other end of the car.

8. In a car-brake, the combination with a movable auxiliary brake-beam, of friction-shoes connected to said beam and adapted for insertion between rails and the wheels at opposite ends of the car, winding mechanisms located at opposite ends of the car, chains connected to said winding mechanisms, springs connecting said chains to the auxiliary brake-beam, additional brake-shoes at opposite ends of the car, and connections between said brake-shoes and the auxiliary brake-beam whereby when the friction brake-shoes are applied at one end of the car, the additional brake-shoes are applied to the wheels at the opposite end of the car.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

CHARLES L. HARRYMAN.

Witnesses:

RUTH MCCARTHY,
JAMES O'NEIL.