(No Model.)

J. F. BURGIN.

BRAKE.

No. 569,486. Patented Oct. 13, 1896.

Fig. 1.

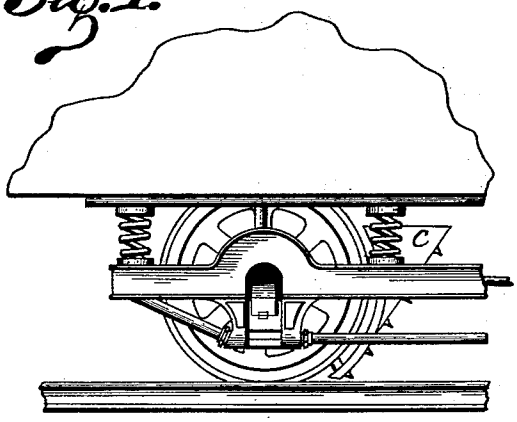

Fig. 2.

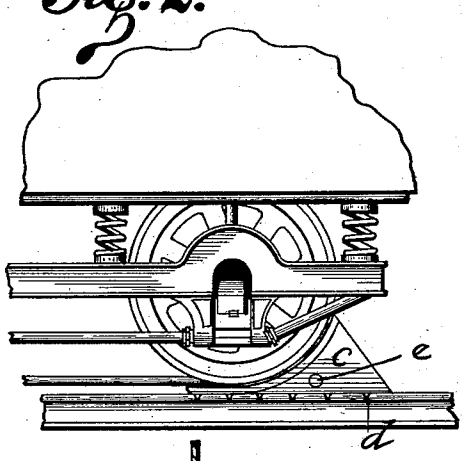

Fig. 3.

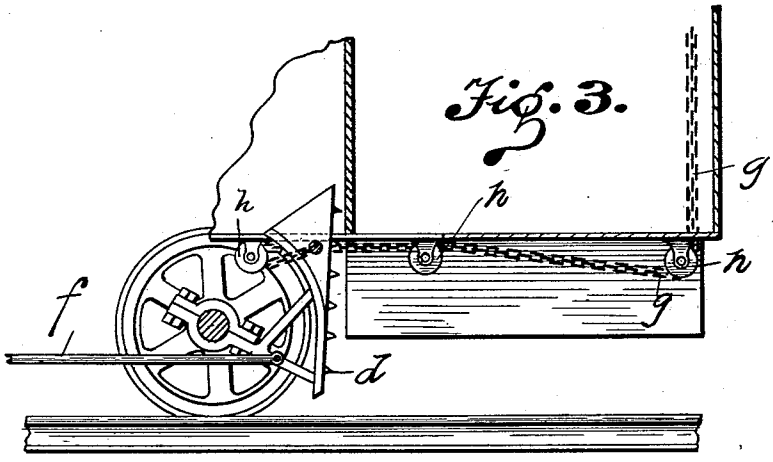

Fig. 4.

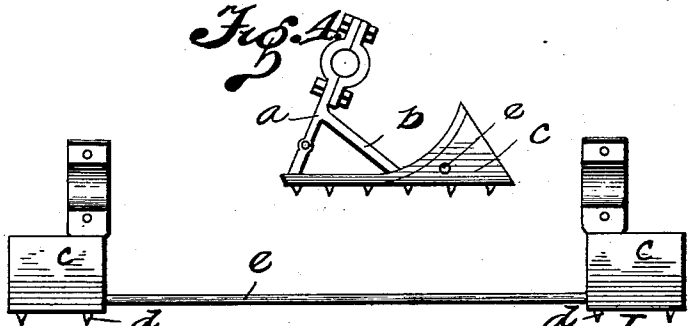

Fig. 5.

Witnesses:
A. D. Appleman, Jr.
A. Wilson

Inventor:
John F. Burgin.

By Henry & Everett Atty's.

UNITED STATES PATENT OFFICE.

JOHN F. BURGIN, OF ALLEGHENY, PENNSYLVANIA, ASSIGNOR OF TWO-FIFTHS TO WILLIAM EBERHARDT, OF SAME PLACE.

BRAKE.

SPECIFICATION forming part of Letters Patent No. 569,486, dated October 13, 1896.

Application filed January 6, 1896. Serial No. 574,459. (No model.)

To all whom it may concern:

Be it known that I, JOHN F. BURGIN, a citizen of the United States of America, residing at Allegheny, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Brakes, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to certain new and useful improvements in brakes in general, and may be more particularly referred to as an emergency-brake, and used principally on street-cars.

The invention has for its object the construction of a brake of the above-referred-to class whereby a car may be stopped almost instantly, if desired, without using the ordinary brakes of the same; furthermore, a brake that can be readily attached to the car and operated without interfering with the other brakes.

A still further object of the invention is the construction of a brake for the above purpose that will be extremely simple in its construction, strong, durable, effectual in its operation, and comparatively inexpensive to manufacture.

With the above and other objects in view the invention finally consists in the novel construction, combination, and arrangement of parts to be hereinafter more particularly described, and specifically pointed out in the claims.

In describing the invention in detail reference is had to the accompanying drawings, forming a part of this specification, and wherein like letters of reference indicate similar parts throughout the several views, in which—

Figure 1 is a side elevation of a truck, showing the brake-shoe in its elevated position. Fig. 2 is a similar view showing the brake-shoe in operation. Fig. 3 is a side view of a portion of a car and truck, showing the brake-shoe in its elevated position. Fig. 4 is a side elevation of the brake-shoe and its support. Fig. 5 is a front elevation of the brake-shoes and supporting-arms, showing the connecting-rod.

In the drawings, *a* represents the supporting-arm of the brake-shoe, which is constructed in the form of a clamp, which is journaled to the axle of the truck. This arm or brace is also provided with an auxiliary arm *b*, which is likewise secured to the brake-shoe *c* to make the support more rigid. The brake-shoe *c* is provided on its underneath face with projections or teeth *d d d*, arranged along the edges of the shoe, thus lying on each side of the rail when applied and acting as guards to prevent the shoe from jumping the track, and a rod *e* connects the brake of one wheel with that of the other. A rod *f* is pivotally connected to the supporting-arm of the front and rear brake, and a chain *g* is connected to the rod *e*, which is passed over pulleys *h h h*, arranged beneath the car.

The operation of my improved emergency-brake is as follows: The supporting arms or braces are secured to the axle of the car and adjusted so that they will operate easily on the same. This supporting-arm is adapted to be of sufficient length to allow the brake-shoe *c* to be a sufficient distance from the car-wheel, so as not to interfere with the ordinary brake. When the brake is in its elevated position, the chain *g* will retain the same, as is shown in Fig. 3 of the drawings, and when it is desired to release the brake the chain *g* is released by the motorman, which will allow the brake to fall by gravity in the position shown in Fig. 2, and when the teeth or projections engage in the paving the supporting-arm will raise the wheels from the track and stop the car instantly. It will be noted that this brake is not adapted to be used for stopping the car gradually, but only as an emergency-brake to prevent accidents and the like. It will also be noted that a lever may be used for operating the brake instead of the chain, which construction may be found desirable in some forms of cars, and I therefore do not wish to limit myself to the specific construction as shown herein, as minor details of construction may be necessary to adjust the brake to a car provided with eight wheels to that required on a car having but four wheels on the trucks. It will also be noted that various other changes

may be necessary in the details of construction of my improved brake without departing from the general spirit of my invention.

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

1. In combination, a brake-shoe, teeth arranged on the lower surface of the brake-shoe and separated to lie on opposite sides of the rail, said shoe having a curved upper surface, arms leading to the brake-shoe and pivoted to the car-axle, a series of pulleys arranged below the car and a chain for operating the shoes, as and for the purpose described.

2. In combination, a brake-shoe having a curved upper surface, teeth arranged along its lower edges and protruding on each side of the rails, arms leading from the brake-shoes and pivoted to the car-axle, a connecting-rod for each pair of shoes extending transversely of the truck, connecting-rods extending longitudinally of the truck, and pivotally secured to the brake-shoes, a series of pulleys arranged below the car and a chain operating over the pulleys, as and for the purpose described.

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

JOHN F. BURGIN.

Witnesses:
ALFRED M. WILSON,
H. E. SEIBERT.