

W. E. BOWERS.

CAR BRAKE.

APPLICATION FILED APR. 27, 1911.

1,037,587.

Patented Sept. 3, 1912.

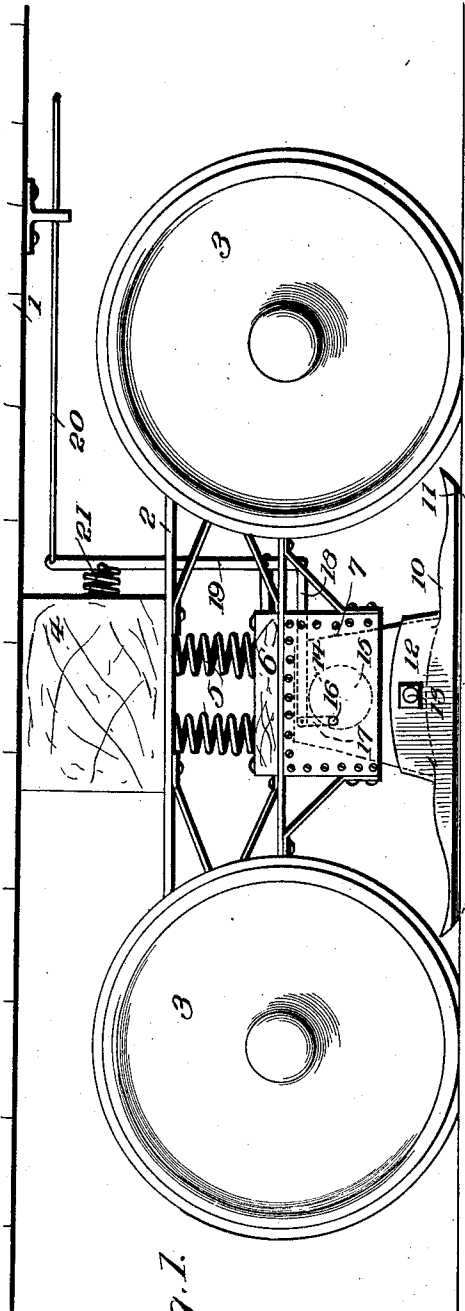


Fig. 1.

Witnesses
W. E. Bowers
G. E. Watt

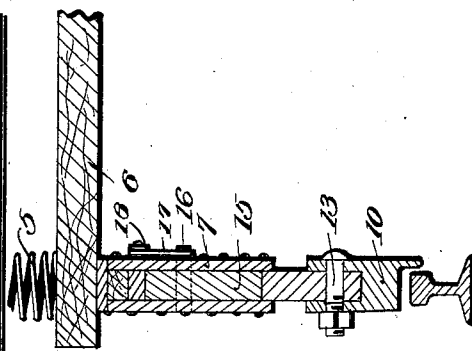


Fig. 3.

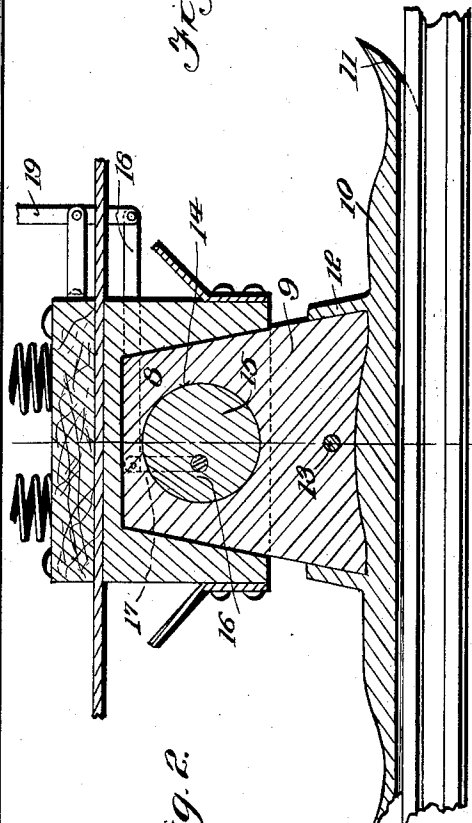


Fig. 2.

Inventor
W. E. Bowers.

By

W. E. Bowers.

Attorney &

UNITED STATES PATENT OFFICE.

WILLIE E. BOWERS, OF TUSCALOOSA, ALABAMA.

CAR-BRAKE.

1,037,587.

Specification of Letters Patent.

Patented Sept. 3, 1912.

Application filed April 27, 1911. Serial No. 623,645.

To all whom it may concern:

Be it known that I, WILLIE E. BOWERS, a citizen of the United States, residing at Tuscaloosa, in the county of Tuscaloosa and State of Alabama have invented certain new and useful Improvements in Car-Brakes, of which the following is a specification.

This invention relates to car brakes and more particularly to that type in which the brake shoe engages with the rail over which the car is traveling.

It is one aim of the invention to so construct the brake that should any of the wheels or axles of the car become broken, the brake will act as a supporting means for the car and will prevent its derailment.

Another object of the invention is to so construct the brake that it may be quickly applied with the application of but little power and will act effectually to bring the car to a standstill.

For a full understanding of the invention and the merits thereof and also to acquire a knowledge of the details of construction, reference is to be had to the following description and accompanying drawings, in which:

Figure 1 is a view in side elevation of the brake; Fig. 2 is a vertical longitudinal sectional view therethrough; and, Fig. 3 is a vertical transverse sectional view.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawing by the same reference characters.

In the drawing, the car is indicated in general by the reference numeral 1 and the supporting wheels therefor by the numeral 3 and, to avoid confusion in the illustration of the invention, the ordinary truck-frame has been omitted. The brake mechanism embodying the present invention, is supported in part, by a frame 2, secured to and supported by a bolster 4. A beam 6 is supported in the frame 2 and springs 5 are arranged within the frame 2 and bear against the upper side of the beam 6. At each end of the beam 6 there is supported a housing 7 designed to slidably receive the head of one of the shoes of the brake in a manner to be presently explained. The side walls of this housing are preferably located in parallel planes, whereas the end walls are in anticlinal planes and are indicated by the numeral 8.

The head of the brake shoe is indicated by the numeral 9 and is wedge-shaped and positioned in the housing with its minor end uppermost and, when the brake shoe is out of contact with the track rail, fits snugly between the walls 8 of the housing and is held against rattling and against tilting. The shoe proper is indicated by the numeral 10 and has a flanged under edge arranged to fit the track rails over which the wheels 3 are traveling, the ends of the shoe being curved upwardly as at 11, so as to prevent injury to the shoe or track in rounding curves and passing over switches. The shoe 10 is formed upon its upper side with a socket 12 into which is removably fitted the lower end of the head 9, it being held within the socket by means of a bolt 13 which may be removed whenever it is desired to replace a broken or worn shoe.

The head 9 is formed with an opening 14 in which fits an eccentric 15 carried by a shaft 16 journaled in the side walls of the housing 7. An arm 17 is fixed at one end of the shaft 16 and to this arm is connected a rod 18 leading to the lower end of a brake lever 19. To the upper end of this lever 19 is connected the rod 20 from the piston of an air brake or the chain of a hand brake. It will be readily understood from the foregoing description of the invention that when the lever 19 is rocked to move its lower end forwardly, the eccentric 15 will be rotated to depress the brake head 9 and shoe 10 thus causing the shoe to bind against the respective track rail. When the lever 19 is rocked in an opposite direction, as it normally is by a spring 21 connected to it and to the bolster 4, the eccentric 15 will be so moved as to draw the head 9 of the shoe 10 into the housing 7 and cause it to fit snugly between the walls 8 thereof. The shoe will at such time be out of contact with the track rail.

By providing the springs 5 between the beam 6 and the bolster 4, should the wheels or axles of the truck become broken, the car will not be liable to be derailed nor will the body thereof be allowed to drop for the reason that the brake shoe 10 will then drop upon the track rails and the springs 5 would absorb the shock incident to their sudden contact with the rails and the car would be brought gradually to a standstill.

Having thus described the invention, what is claimed is:

1. In a brake of the class described, a

housing having anticlinal walls, a brake shoe having a wedge-shaped head slidably fitted in the housing and formed with an opening, a shaft journaled in the housing, 5 an eccentric fixed upon the shaft fitting in the opening in the head, and means operable to rock the shaft to move the head to position snugly fitting in the housing and to slide the head outwardly from the housing. 10 2. In a brake of the class described, a support, a beam, springs interposed between the beam and the support and yieldably holding the beam against upward movement, a

housing supported by the beam, a brake shoe having a head slidably fitted in the housing, 15 the said head being formed with an opening, a shaft journaled in the housing, an eccentric fixed upon the shaft and fitting in the opening in the head and means operable to rock the shaft. 20

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

WILLIE E. BOWERS. [L. S.]

Witnesses:

J. M. PARSONS,
A. C. McCLUNG.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."