B. A. PILLOW.

BRAKE FOR RAILWAY CARS.

APPLICATION FILED MAR. 2, 1911.

994,657.

Patented June 6, 1911.

Fig. 1.

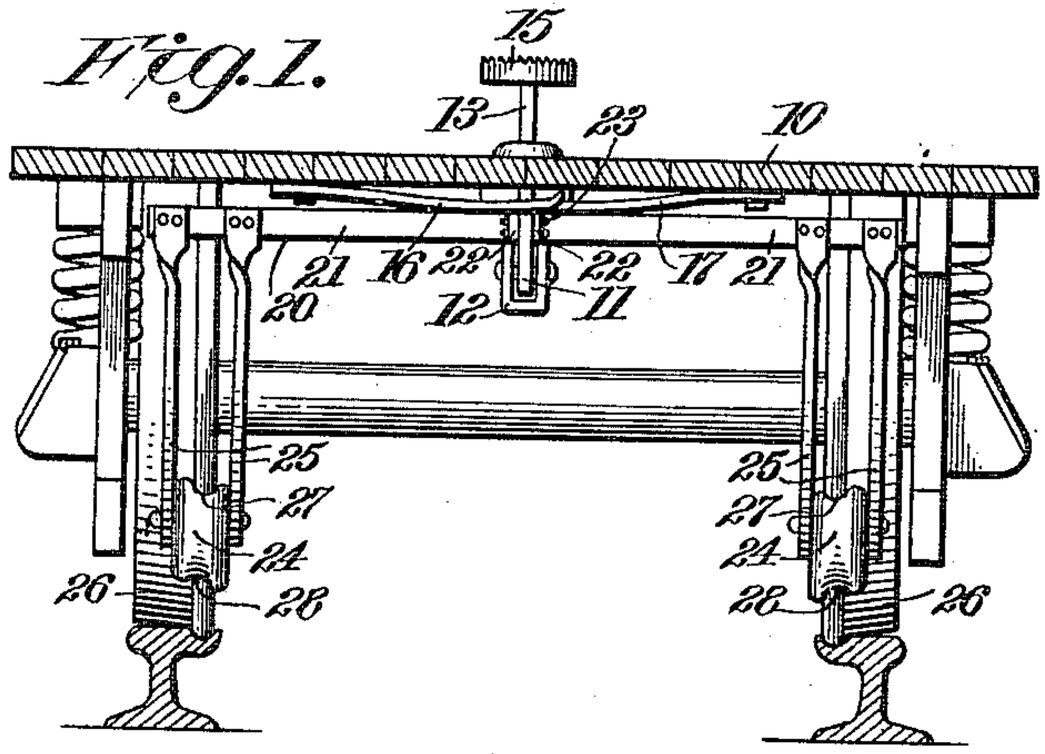


Fig. 2.

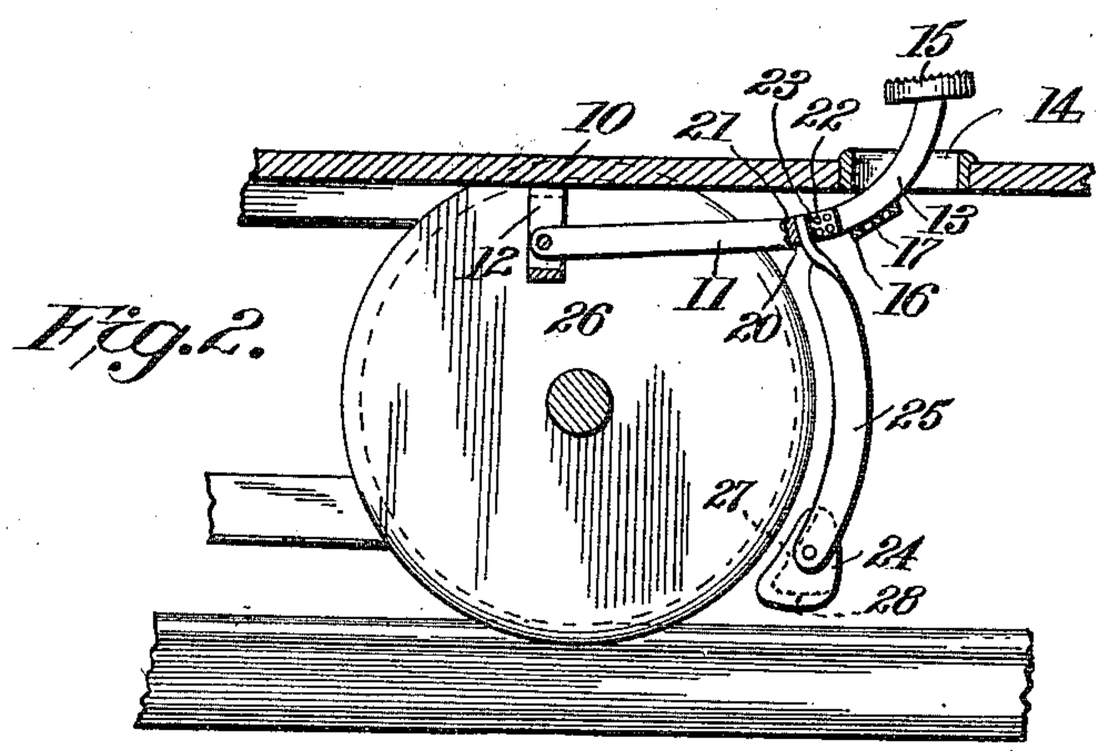
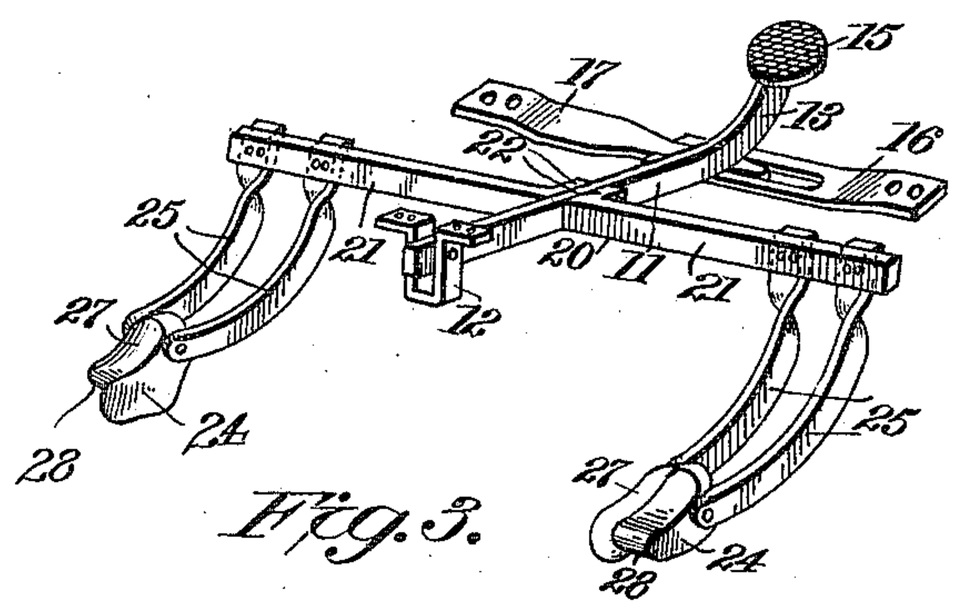


Fig. 3.



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BRAKE FOR RAILWAY-CARS.

994,657. Specification of Letters Patent. **Patented June 6, 1911.**

Application filed March 2, 1911. Serial No. 611,879.

To all whom it may concern:

Be it known that I, BENJAMIN A. PILLOW, a citizen of the United States, residing at Richmond, in the county of Henrico and State of Virginia, have invented new and useful Improvements in Brakes for Railway-Cars, of which the following is a specification.

This invention relates to certain new and useful improvements in brakes for railway cars, and like vehicles.

One of the objects of the present invention is to provide an improved brake of the character referred to constructed to be so operated as to apply a braking pressure to the wheels of the vehicle under normal conditions, and where an emergency stop is required to also apply a braking pressure upon the tracks.

A further object is to provide improved means for supporting the brake beams and brake shoes in operative position, whereby the brake may be positively and effectively operated.

The invention will be hereinafter fully set forth and particularly pointed out in the claims.

In the accompanying drawings:—Figure 1 is a front view of a portion of a car platform with my improved brake applied thereto. Fig. 2 is a longitudinal sectional view. Fig. 3 is a perspective view illustrating the brake beam and operating bar.

Referring to the drawings, 10 designates a car platform, and 11 an operating bar pivotally mounted at one end in suitable brackets 12 depending from the underside of said platform. The forward end of said operating bar 11 is turned upwardly as indicated at 13 and passed through a suitable opening 14 formed in the platform, said end terminating in a head 15 adapted to be engaged by the foot of the motorman or driver, whereby said operating bar may be depressed. The curved end 13 is normally held in a raised position by any suitable spring, the form illustrated in the drawing comprising two spring plates 16, 17, the free ends of which bear against the underside or edge of the bar 11. The free end of plate 16 is forked to receive the free end of plate 17, said springs exerting sufficient tension to normally support the entire brake in an inoperative position.

The brake beam 20 is formed of two arms or members 21 each having one end bent over as indicated at 22 and rigidly secured to the bar 11 in any suitable manner, preferably by bolts 23, the same bolts being employed to unite both members to said bar. By this arrangement an exceedingly light but strong construction is provided. The brake shoes 24 are pivotally mounted between curved arms 25 rigidly secured near the free ends of bars or members 21 and directly opposite the wheels 26. It will be noted that each shoe is provided with a face 27 shaped to receive the flange of the wheel, and a similar face 28 in its lower face shaped to engage the thread of the rail, the inner side of the shoe having a flange adapted to engage the inner side of said rail.

In practice, the springs 16, 17 normally hold the operating bar and brake beam in such position as to prevent engagement of the brake shoes with the wheels. It will be noted, however, that the pivot of the bar 11 is so located with reference to the wheels that a slight depression of said bar 11 will cause the brake shoes 24 to engage with the flange and tread of the wheel with sufficient force to bring the car to a stop under ordinary conditions. Should an emergency arise, however, which would require a quick stop of the car, the motorman or driver depresses the bar 11 until the brake shoes engage the tread of the rail. The effect of this action is to maintain a braking action against the wheels at all times during the depression of the bar 11, and finally to get a braking action against the track, effectually chocking the wheels and bringing the car to an immediate stop. As soon as the car is brought to a standstill the pressure upon the bar 11 may be withdrawn sufficiently to permit springs 16 and 17 to elevate the shoes to disengage the latter from the track, and yet sufficient pressure can still be maintained to retain a braking pressure upon the wheels. When it is desired to again start the car, pressure is removed from the bar 11 and the spring will at once move the brake shoes out of engagement with the wheels.

Having thus explained the nature of my invention, and described an operative manner of constructing and using the same, although without attempting to set forth all

of the forms in which it may be made, or all of the forms of its use, what I claim is:—

1. A brake for railway cars comprising an operating bar pivotally supported at one end, a brake beam rigidly secured to said operating bar, brake shoes supported by said brake beam, and means engaging said operating bar for holding the brake shoes out of engagement with the wheels of a car.

2. A railway car brake comprising an operating bar pivotally mounted at one end, a brake beam rigidly secured to said operating bar, brake shoes supported by said brake beam, and springs engaging said operating bar and supporting the combined weight of said bar, said brake beam and brake shoes.

3. A brake for railway cars comprising an operating bar pivotally supported at one end, the other end of said bar being curved upwardly and provided with a head or enlargement, a brake beam rigidly secured to said operating bar, and brake shoes carried by said brake beam.

4. A brake for railway cars comprising an operating bar pivotally mounted at one end, a brake beam comprising oppositely disposed arms having bent ends rigidly secured to opposite sides of said operating bar, and brake shoes carried by said brake beam.

5. A brake for railway cars comprising an operating arm pivotally supported at one end, a brake beam rigidly secured to said operating bar, and brake shoes carried by said brake beam, said shoes being grooved to receive the flange of a wheel, the bottom of said shoe being adapted to engage a track.

6. A brake for railway cars comprising an operating arm pivotally supported at one end, a brake beam rigidly secured to said operating bar and brake shoes carried by said brake beam and adapted to engage a car wheel, the bottom of said shoe being provided with a grooved face adapted to engage the tread of a rail.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

BENJAMIN A. PILLOW.

Witnesses:
J. B. Lacy,
Geo. T. Dean.