W. J. SMITH.

BRAKE.

APPLICATION FILED NOV. 8, 1909.

960,425. Patented June 7, 1910.

2 SHEETS—SHEET 1.

Fig. 1.

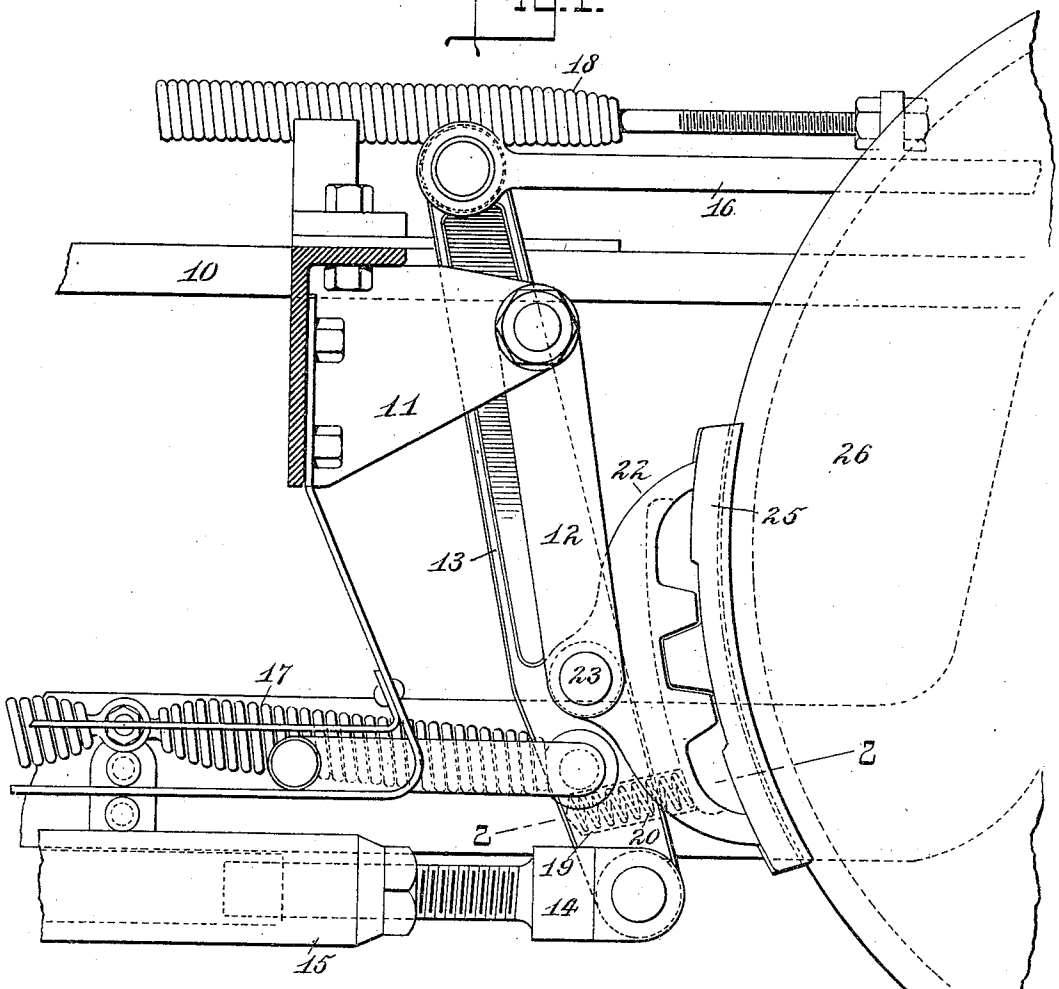
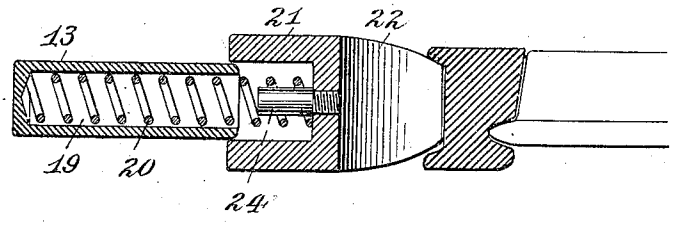


Fig. 2.



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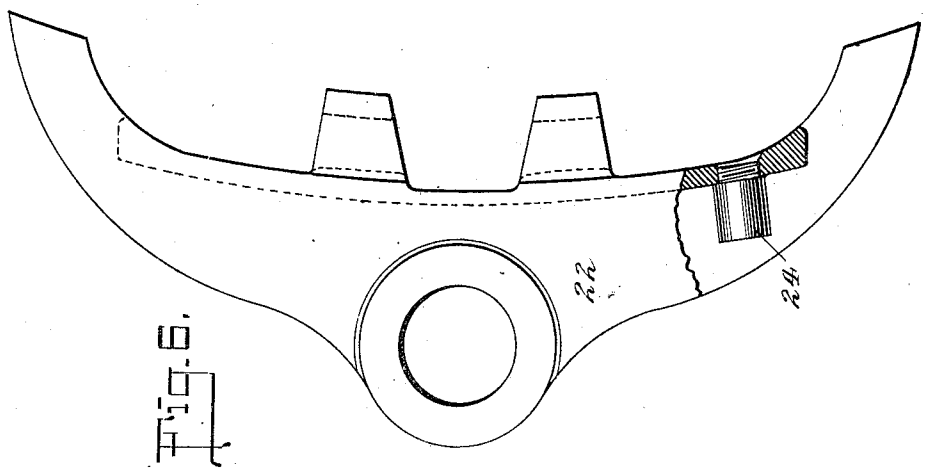


FIG. 6.

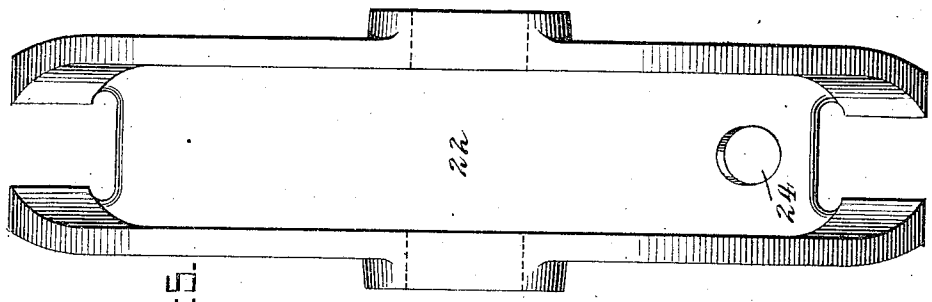


FIG. 5.

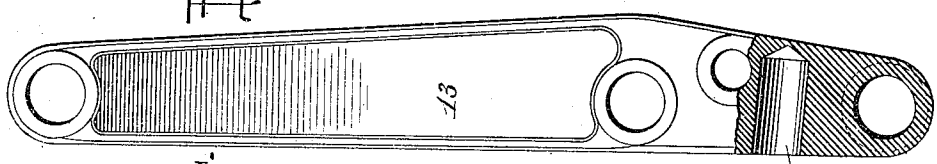


FIG. 4.

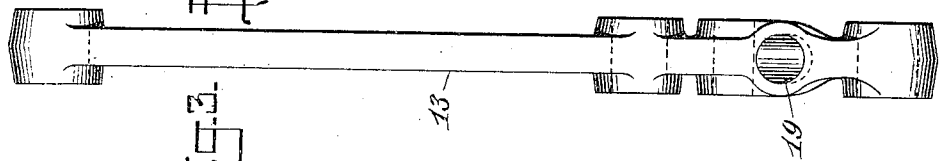


FIG. 3.

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UNITED STATES PATENT OFFICE.

WILLIAM JUDSON SMITH, OF ST. PAUL, MINNESOTA.

BRAKE.

960,425. Specification of Letters Patent. Patented June 7, 1910.

Application filed November 8, 1909. Serial No. 526,706.

To all whom it may concern:

Be it known that I, WILLIAM JUDSON SMITH, a citizen of the United States, and a resident of St. Paul, in the county of Ramsey and State of Minnesota, have made and invented certain new and useful Improvements in Brakes, of which the following is a specification.

My invention relates to an improvement in brakes for railway cars, and more particularly to devices for maintaining the brake shoe in its proper position relative to the rim or periphery of the wheel with which it comes in frictional contact when the brake is applied.

It frequently happens by reason of the faulty construction and arrangement of the parts comprising the brake, one end of the shoe, when the brake is released, will remain in contact with the rim of the wheel and be completely worn away, while the opposite end of the shoe is but little or partially worn away, thereby not only causing a drag on the wheels while revolving, but also materially lessening the life of the shoe and necessitating its early scrapping.

The object of my invention is to so construct and arrange the several parts comprising the braking mechanism that the wearing face of the shoe will always he held in a position concentric with the rim of the wheel, causing an even wear on the shoe and materially increasing the life thereof, and with these and other ends in view, the invention consists in certain novel features of construction, as will be hereinafter fully described and pointed out in the claims.

In the accompanying drawings, Figure 1 is a view in side elevation of a part of a brake constructed in accordance with my invention. Fig. 2 is a sectional view taken on the line 2—2 of Fig. 1. Fig. 3 is a front view of the brake lever, and Fig. 4 a view in side elevation thereof, the lower end being shown in section. Fig. 5 is a front view of the brake head, and Fig. 6 a view in side elevation, the lower end of one of the sides thereof being broken away.

Referring to the drawings, 10 represents the frame work of the car, to which are secured the brackets 11, and to which latter in turn are pivotally secured the upper ends of the links or hangers 12, employed for the purpose of supporting the brake lever 13. This brake lever 13 is fulcrumed at its lower end to the bar or rod 14, having thereon the turn-buckle 15, the opposite end of said bar 14 being likewise secured to the brake lever forming part of the brake mechanism for the corresponding wheel, (not shown).

To the upper end of the lever 13 is pivotally secured the rod 16, by means of which said lever is operated, the lever being pivotally secured to the hangers 12 between its upper and lower ends, as clearly illustrated in Fig. 1 of the drawings. Connected to the lever 13 are springs 17, and to the rod 16 are connected springs 18 for the purpose of returning the several parts of the mechanism to their normal positions when the brake is released, and which forming no part of the present invention, need no further description.

The brake lever 13 is preferably constructed as illustrated in Figs. 3 and 4, that is, with a hole or receptacle 19 for the reception of one end of a coiled spring 20, the opposite end of said spring fitting between the sides or flanges 21 of the brake head 22 secured to the brake lever 13 by the bolt 23 which pivots the lower end of the hangers 12 to said lever. Into this brake head, and between the sides 21, is threaded one end of the post or stud 24, around which is coiled one end of the spring 20, for the purpose of retaining the latter in its proper position, and the tendency of which spring is to hold the lower end of the head 22 with its attached brake shoe 25 concentric with the rim or periphery of the wheel 26, and prevent the upper end from remaining in contact with the rim of the wheel when the brake is released.

By thus constructing and arranging the several parts, a pull on the rod 16 will cause the brake lever 13 supported on the hangers 12 and fulcrumed at the lower end to the rod 14, to travel toward the wheel 26, carrying with it the head 22 and the attached shoe 25, the latter at all times being held concentric with the rim of the wheel by means of the spring 20 held permanently in place within the receptacle 19 formed in the brake lever and around the stud or post 24.

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

1. In a brake of the character described, the combination with a brake lever provided with a recess, of a brake head pivotally secured to said lever and provided with a post, and a spring, one end of which fits in said recess in said brake lever and the opposite

end around said post, substantially as described.

2. In a brake of the character described, the combination with a brake lever provided with a recess, of a brake head pivotally secured to said lever and formed with two sides, a post located between the sides of said head and having one end threaded into said head, and a spring, one end of which fits in said recess in said lever and the opposite end around said post, substantially as described.

Signed at Minneapolis, in the county of Hennepin, and State of Minnesota, this 1st day of November, A. D. 1909.

WILLIAM JUDSON SMITH.

Witnesses:

HAROLD W. BALLOU,

GEORGE G. BALLOU.