J. P. CALLAHAN.

BRAKING MECHANISM.

APPLICATION FILED FEB. 8, 1909.

934,425. Patented Sept. 21, 1909.

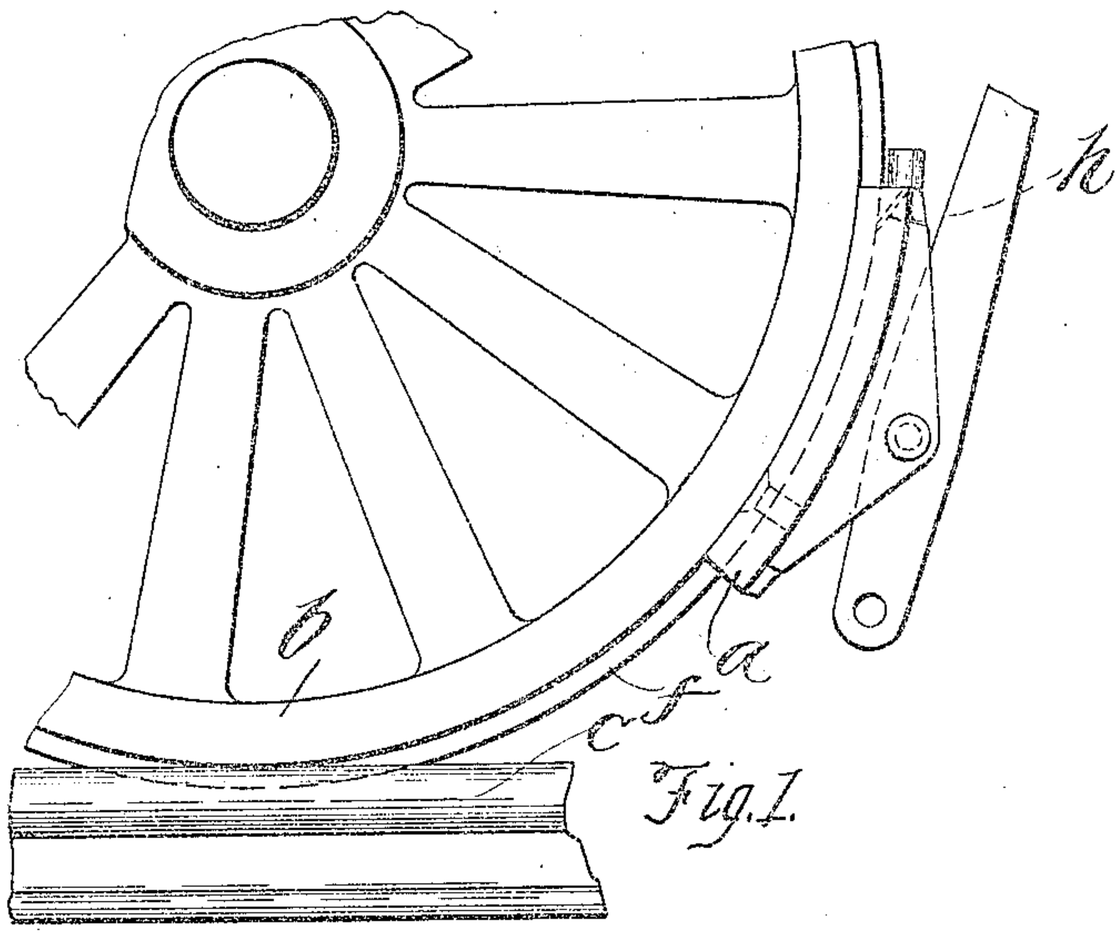


Fig. 1.

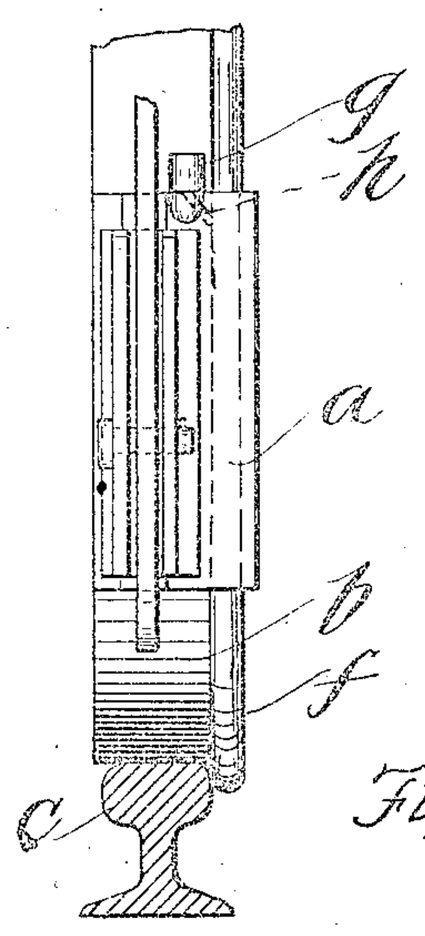


Fig. 2

Fig. 3

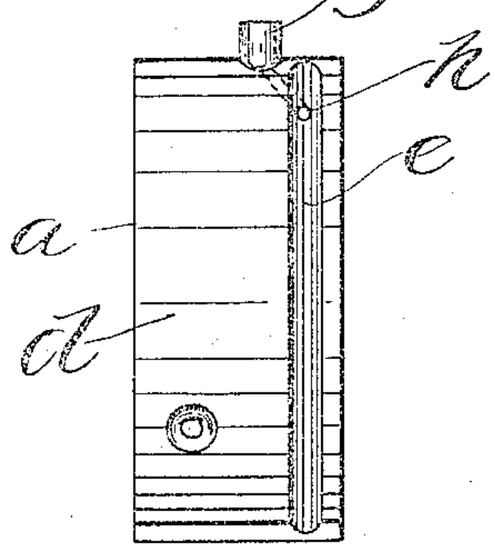


Fig. 4.

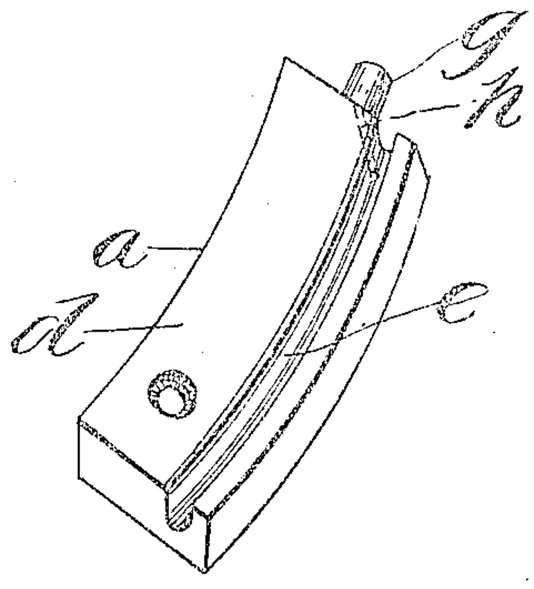


Fig 5.

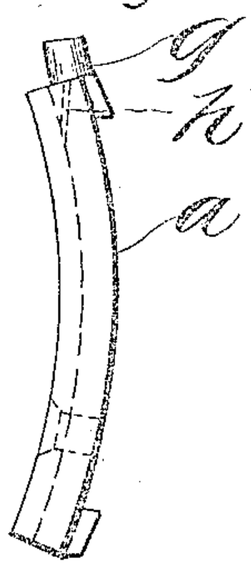


Fig. 6.

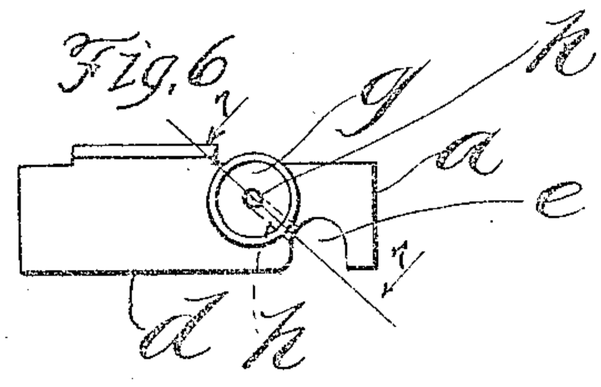
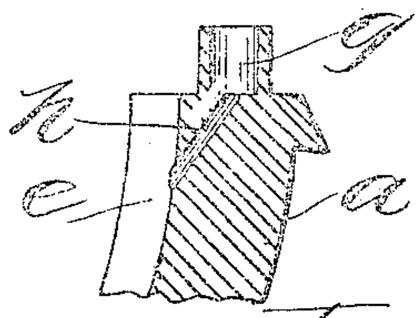


Fig. 7.



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UNITED STATES PATENT OFFICE.

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BRAKING MECHANISM.

924,425. Specification of Letters Patent. Patented Sept. 21, 1909.

Application filed February 8, 1908. Serial No. 475,659.

To all whom it may concern:

Be it known that I, JAMES P. CALLAHAN, citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Braking Mechanism, of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

My invention relates to braking appliances, and has for its object the provision of means whereby such braking appliance may effect the application of suitable material to a flange of a railway vehicle wheel, for the purpose of lessening wear that is apt to occur between the flange and the engaging track rail.

My invention is of particular service in connection with the flanged driving wheels of locomotives, the flanges whereof are especially liable to have hard wear upon the tracks, particularly in rounding curves. The harmful wear between such flanges and track rails is particularly liable in localities where sand, or other gritty substances, is likely to enter between the track rails and the wheel flanges.

In the preferred embodiment of the invention, the construction is such that the material that is to be applied to the wheels, which material is preferably lubricating oil, is only applied when the braking mechanism is brought into braking engagement with the wheels, and to this end I preferably employ the brake shoe portion of the braking mechanism as the agency for effecting the desired application of the lubricating material. In the preferred embodiment of the invention, the brake shoe is provided with a flange-receiving recess, to the flange-engaging surface of which the lubricant is led, the brake shoe desirably having a duct formed therein which effects communication between the flange-engaging surface of the brake shoe and a suitable source of lubricant supply, such as may be contained in a pocketed portion of the brake shoe structure, cotton waste within such pocketed portion of the brake shoe structure being desirably saturated with the oil, which feeds downward through said duct onto the flange-engaging surface of the brake shoe, thereby to be placed upon the flange of the associated wheel when the brake shoe is applied.

I will explain my invention more fully by reference to the accompanying drawing, in which—

Figure 1 is a side elevation showing a part of a wheel, part of a track rail on which the wheel rests, and the brake shoe in association with the wheel. Fig. 2 is an end view of the parts shown in Fig. 1. Fig 3 is a view of the wearing face of the brake shoe. Fig. 4 is a view in perspective of the brake shoe. Fig. 5 is a side view of the brake shoe. Fig. 6 is a plan view of the brake shoe. Fig. 7 is a sectional view on line 7 7 of Fig. 6.

Like parts are indicated by similar characters of reference throughout the different figures.

It is unnecessary to an understanding of my invention to illustrate all of the braking mechanism that is employed in the construction of a railway vehicle, as I prefer to provide the brake shoe portion with the means for supplying the lubricant or other suitable material, to the wheel flange.

The brake shoe *a*, which may be of any suitable formation and shape, is shown in association with a flanged locomotive driving wheel, a portion *b* of which is indicated as resting upon a track rail *c*. The usual wheel tread surface-engaging portion *d* is provided upon the brake shoe. A wheel flange-engaging recess *e* is provided in the brake shoe and has a contour that conforms to the shape of the wheel flange *f*. A source of supply for the material, the lubricating oil that is to be applied to the wheel flange, is afforded by the pocketed portion *g* provided upon the brake shoe, said pocketed portion being preferably located at the upper end of the brake shoe, a duct *h* serving to permit of the passage of the lubricant from the pocket downward to the wheel flange-engaging recess *e* whose surface that contacts with the wheel flange may thereby be well supplied with lubricant, so that when the brake shoe is engaged with the wheel, the flange of such wheel is supplied with oil, so as to reduce the wear between such flange and the track rail.

In the preferred way of practicing my invention, I locate cotton waste within the pocketed portion *g* and pour plenty of oil into the pocketed portion. The cotton waste, which may, if desired, be continued downward through the duct *h*, permits of the slow

flow of oil through said duct and onto the surface of the wheel flange-engaging recess *e*.

While I have herein shown and particularly described the preferred embodiment of my invention, I do not wish to be limited to such embodiment.

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

1. Braking mechanism including a brake shoe having a wheel flange-receiving recess, said brake shoe being provided with a duct leading to the flange-receiving recess and serving to transfer material to the wheel flange-receiving recess, which material is adapted to lessen the wear between the wheel flange and an engaging track rail, the material by being conveyed to the flange-receiving recess of the brake shoe, being applied to the wheel flange when the braking mechanism is operated to apply the brake shoe to the wheel and its flange.

2. Braking mechanism including a brake shoe having a wheel flange-receiving recess, said brake shoe being provided with means formed in the structure of the shoe for transferring material to the wheel flange-receiving recess, which material is adapted to lessen the wear between the wheel flange and an engaging track rail, the material by being conveyed to the flange-receiving recess of the brake-shoe, being applied to the wheel flange when the braking mechanism is operated to apply the brake shoe to the wheel and its flange.

3. Braking mechanism including a brake shoe having a wheel flange-receiving recess, said brake shoe being provided with means for transferring material to the wheel flange-receiving recess, which material is adapted to lessen the wear between the wheel flange and an engaging track rail, the material by being conveyed to the flange-receiving recess of the brake shoe, being applied to the wheel flange when the braking mechanism is operated to apply the brake shoe to the wheel and its flange.

4. Braking mechanism including a brake shoe adapted to work upon a flanged railway wheel, said brake shoe being provided with means formed in the structure of the shoe for transferring material to the wheel flange, which material is adapted to lessen the wear between the wheel flange and a track rail, the means for conveying such material to the wheel flange being normally out of operative relation with the wheel flange but being brought into operative relation with the wheel flange by the braking mechanism when operated to permit of the transfer of such material thereto when the brake shoe is applied to the wheel.

5. Braking mechanism including a brake shoe adapted to work upon a flanged railway wheel, said brake shoe being provided with means for transferring material to the wheel flange, which material is adapted to lessen the wear between the wheel flange and a track rail, the means for conveying such material to the wheel flange being normally out of operative relation with the wheel flange but being brought into operative relation with the wheel flange by the braking mechanism when operated to permit of the transfer of such material thereto when the brake shoe is applied to the wheel.

6. Braking mechanism adapted to work upon a flanged railway wheel, and provided with means for transferring material to the wheel flange, which material is adapted to lessen the wear between the wheel flange and a track rail, the means for conveying such material to the wheel flange being normally out of operative relation with the wheel flange but being brought into operative relation with the wheel flange by the braking mechanism when operated to permit of the transfer of such material thereto when the braking mechanism is operated to check the rotation of the wheel.

In witness whereof, I hereunto subscribe my name this 3rd day of February A. D., 1909.

JAMES P. CALLAHAN.

Witnesses:

G. L. Cragg,

Leon G. Stroh.