

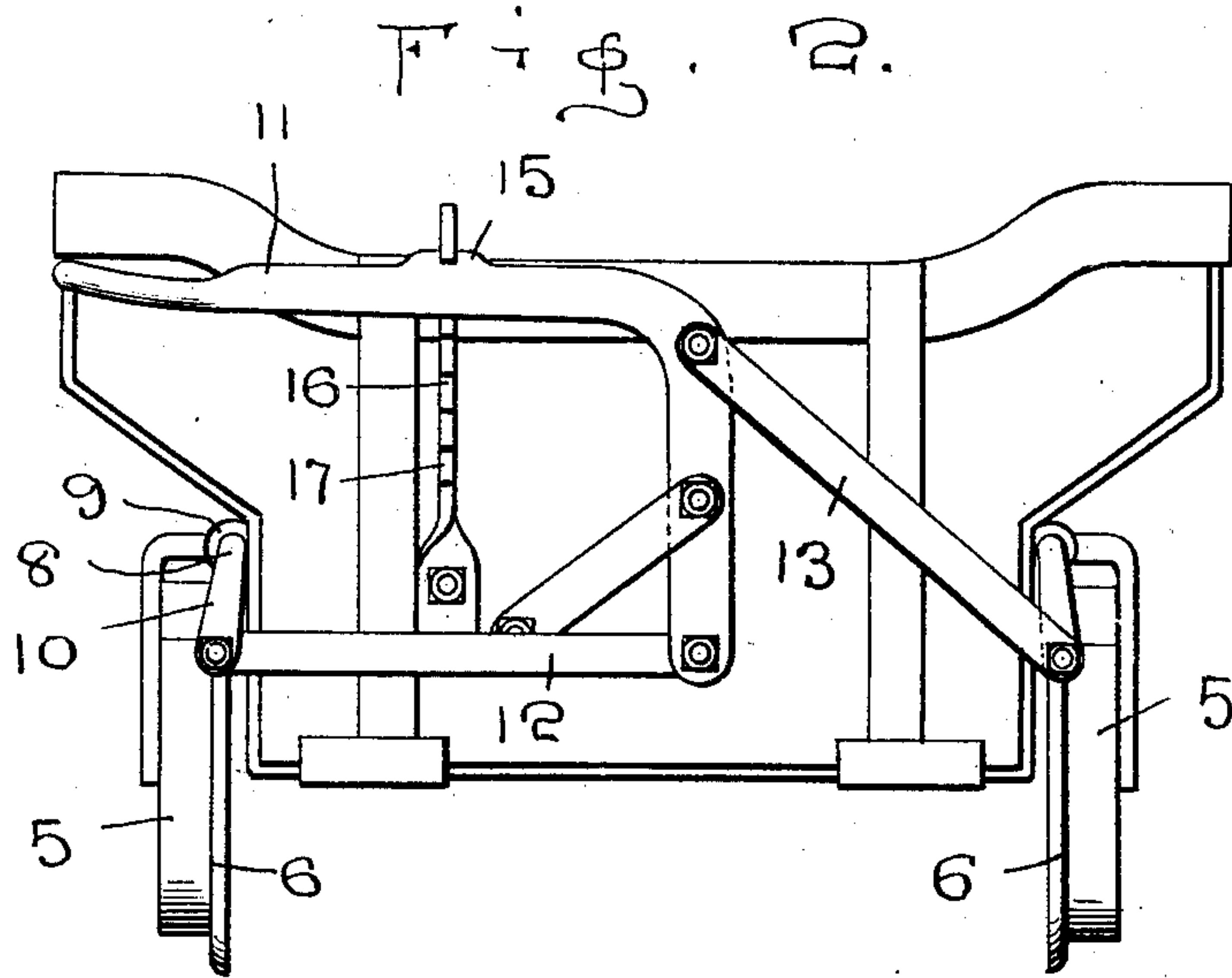
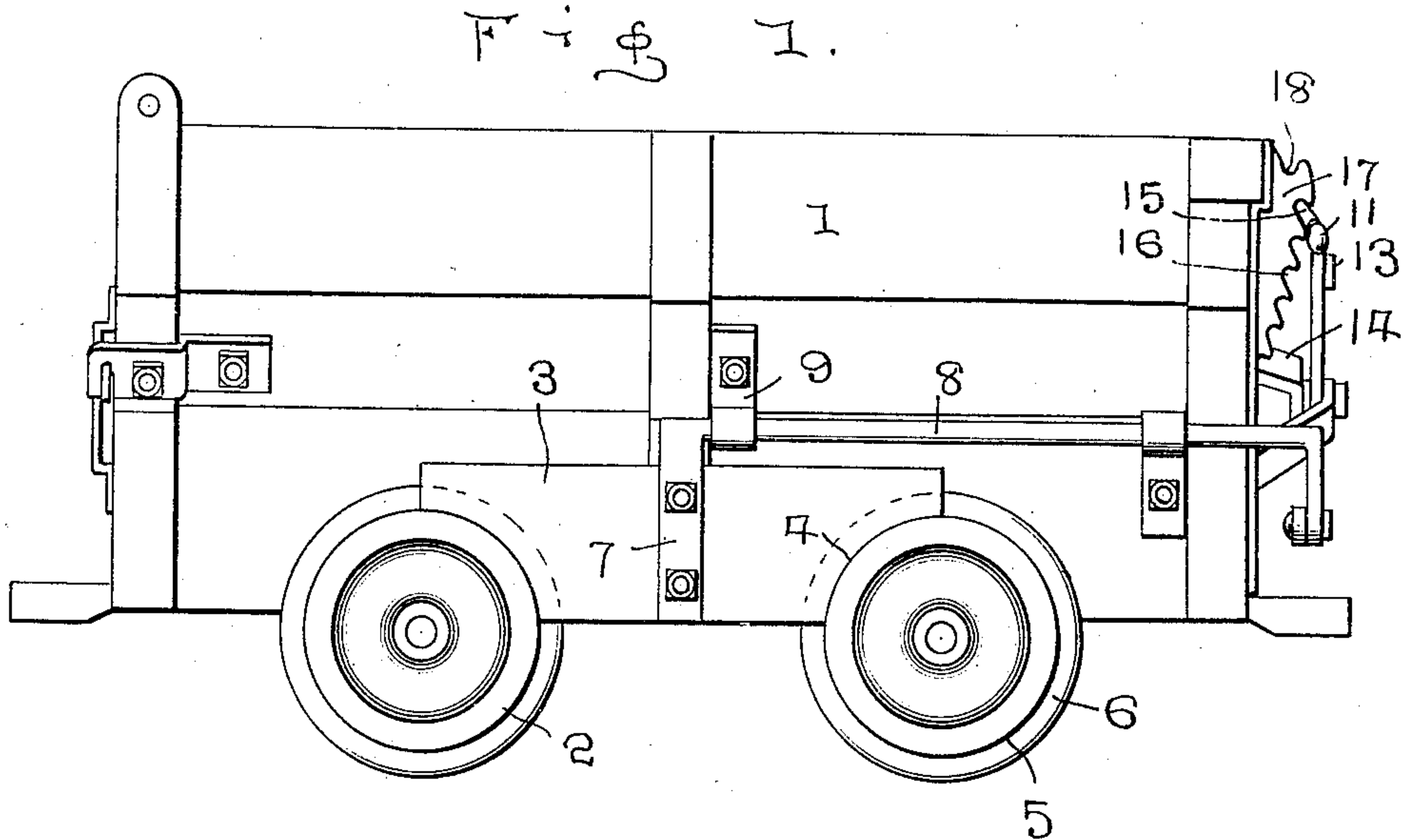
J. A. DAVIS & D. L. REED.

CAR BRAKE.

APPLICATION FILED NOV. 10, 1908.

924,645.

Patented June 15, 1909.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

JACOB A. DAVIS AND DAVY LEE REED, OF WRIGHT, WEST VIRGINIA.

## CAR-BRAKE.

No. 924,645.

Specification of Letters Patent.

Patented June 15, 1909.

Application filed November 10, 1908. Serial No. 461,906.

*To all whom it may concern:*

Be it known that we, JACOB A. DAVIS and DAVY LEE REED, citizens of the United States, residing at Wright, in the county of Raleigh and State of West Virginia, have invented certain new and useful Improvements in Car-Brakes; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

Our invention relates to new and useful improvements in car brakes and is adapted more particularly to be used in connection with mine cars and our object is to provide brake shoes which will engage both wheels at each side of the car.

A further object is to provide means for operating both of the brake shoes simultaneously and a still further object is to provide means for locking the brake shoes in engagement with the wheels.

Other objects and advantages will be hereinafter referred to and more particularly pointed out in the claim.

In the accompanying drawings which are made a part of this application, Figure 1 is a side elevation of a mine car showing our improved brake mechanism applied thereto and showing the brake shoes applied to use, and, Fig. 2 is an end elevation of the car and brake mechanism.

Referring to the drawings in which similar reference numerals designate corresponding parts throughout the several views, 1 indicates the car body which may be constructed in the usual or any preferred manner, said car body being supported through the medium of wheels 2, which wheels are preferably arranged in pairs and two wheels placed at each side of the car body.

In order to provide a positive brake for the car, a brake shoe 3 is provided at each side of the car, each end of the brake shoe having a curved face 4 adapted to correspond with and engage the curved tread 5 of the wheels 2, while the inner face of the brake shoe is adapted to engage the face of the flanges 6 of the wheels, thereby forming a double rubbing surface for the brake shoes. The brake shoes are suspended from depending arms 7 of shafts 8, said shafts being carried in hangers 9 on the sides of the car body 1, the outer ends of the shafts 8 having cranks 10 thereon,

which cranks are pivotally secured to a lever 11, through the medium of links 12 and 13, respectively. The lever 11 is substantially L-shaped and has a portion thereof extending horizontally, and a portion depending vertically, the depending portion being pivotally secured to a bracket 14 on the end of the car and in order to operate the shafts 8 in unison, the link 12 is secured to the lower end of the depending portion of the lever 11, while the link 13 is secured to the upper end of the depending portion, said links engaging the lever at equal distances from the pivot of the lever.

The horizontal portion of the lever 11 is provided with a tongue 15, which tongue is adapted to engage notches 16 in a rack 17, said rack being fixed to the end of the car in any suitable manner and when the tongue is in engagement with the teeth, it will be readily seen that the brake shoes 3 will be held in engagement with the wheels. The free end of the rack 17 is provided with a recess 18, in which the lever 11 is adapted to be seated when the brake shoes are to be held out of engagement with the wheels, the lever 11 in practice being swung clear of the teeth 16 and elevated above the rack 17 and then seated in the recess.

When it is desired to clamp the brake shoes in engagement with the wheels, the horizontal portion 11 is elevated from the recess 18 and moved outwardly until it clears the rack 17 when the horizontal portion of the lever is moved downwardly, this movement swinging the vertical portion of the lever on its pivot and rocking the shafts 8, the brake shoes 3 being thereby moved between the wheels at each side of the car. Downward pressure is then exerted on the lever 11 until the brake shoes are pressed into firm engagement with the tread and flanges of the wheels, when the horizontal portion of the lever is swung inwardly and the tongue 15 engaged with one of the notches on the rack 17, this operation holding the brake shoes into engagement with the wheels until such time as it is desired to release the same and it will be readily seen that by arranging the brake shoes to engage both the tread and the flange of the wheel, said wheels may be securely held. It will likewise be seen that in view of the simplicity of our improved brake mechanism, it can be quickly applied to use and at



a minimum expense, and further that the brake can be readily set by anyone standing at the side of the car.

What we claim is:

- 5 In a brake mechanism of the class described, the combination with a car body having a pair of supporting wheels on each side thereof; of a shaft rotatably mounted on each side of the car body, a depending arm  
10 at the end of each shaft, a brake shoe secured to each arm, said brake shoes having curved faces at each end, said shoes being adapted to engage the tread and flanges on the wheels and of sufficient length to engage  
15 both wheels simultaneously, cranks at the outer ends of said shafts, links pivoted to said cranks, an L-shaped lever pivotally se-

cured to the car body, the inner ends of said links engaging the lever at opposite sides of its pivot point, a rack having notches thereon adapted to be engaged by the lever to hold the brakes in their set positions, said rack also having a recess in its upper end to receive the lever and hold the brake shoes away from the wheels. 20 25

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

JACOB A. DAVIS.  
DAVY LEE REED.

Witnesses:

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