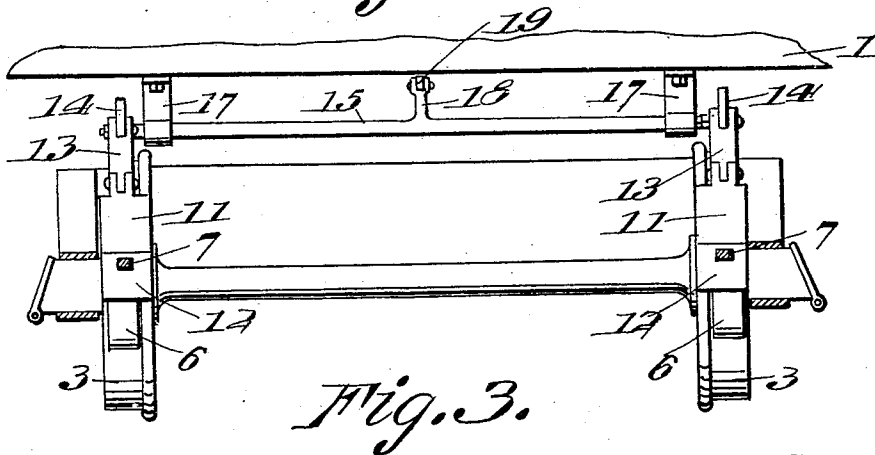
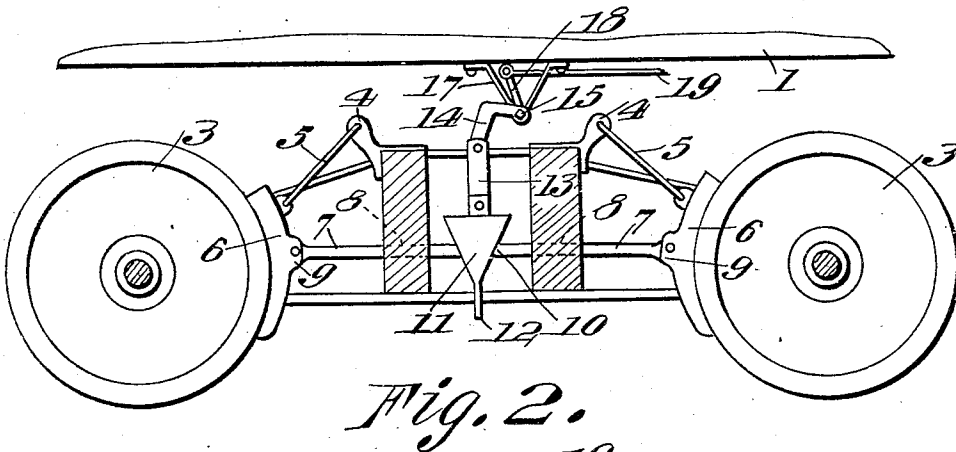
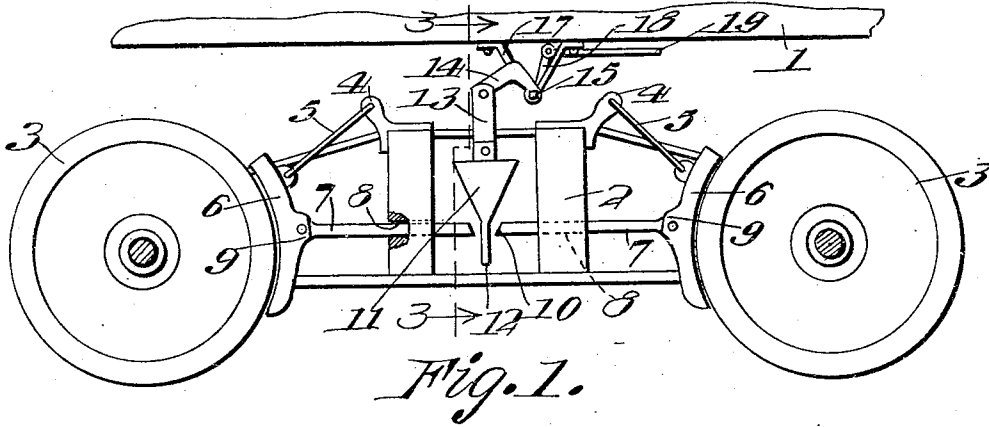


C. A. WILLIAMSON.
BRAKE OPERATING MECHANISM FOR CARS.
APPLICATION FILED MAY 10, 1909.

941,219.

Patented Nov. 23, 1909.



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UNITED STATES PATENT OFFICE.

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BRAKE-OPERATING MECHANISM FOR CARS.

941,219.

Specification of Letters Patent.

Patented Nov. 23, 1909.

Application filed May 10, 1909. Serial No. 494,975.

To all whom it may concern:

Be it known that I, CHARLES A. WILLIAMSON, a citizen of the United States, residing at Jersey City, in the county of Hudson and State of New Jersey, have invented certain new and useful Improvements in a Brake-Operating Mechanism for Cars; and I do 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.

This invention relates to improvements in brake operating mechanism for cars.

The object of the invention is to provide an improved construction of brake operating mechanism whereby the brakes may be quickly and easily forced in operative engagement with the car wheels, and readily disengaged therefrom.

A further object is to provide a brake operating mechanism of this character which will be simple, strong and durable in construction, efficient and reliable in operation and well adapted for the purpose for which it is designed.

With the foregoing and other objects in view, the invention consists of certain novel features of construction, combination and arrangement of parts, as will be more fully described and particularly pointed out in the appended claims.

In the accompanying drawings: Figure 1, is a side view of a portion of a car and one of its trucks, showing my invention applied thereto and illustrating the parts in inoperative position. Fig. 2, is a similar view, showing the parts in operative position to apply the brakes; and, Fig. 3, is a vertical cross-section on the line 3—3, of Fig. 1.

Referring more particularly to the drawings, 1, denotes the bottom of the car; 2 denotes the transoms of the car truck, and 3 denotes the wheels. These parts may be of the usual construction and are arranged and secured in operative position in the usual or any approved manner. On the opposite sides of the transoms 2, of the truck, adjacent to each end are secured brackets 4, to which are connected the upper ends of links 5, the lower ends of which are secured to brake shoes 6, arranged in position to engage the wheels of the truck. To the brake shoes 6, are connected operating bars or plunger rods 7, said bars being slidably engaged with bearing apertures 8, in the transoms 2, as shown. The outer ends of

the bars or rods 7, are reduced or flattened and are pivotally engaged with apertured ears 9, on the brake shoes, while the inner ends of said bars or rods are beveled or inclined as shown at 10, and normally extend to within a short distance of each other between the transoms 2, of the truck.

Arranged between the inner ends of the operating bars or rods 7, at each end of the truck, are wedge shape operating blocks or plungers 11, on the lower ends of which are formed reduced extensions 12, which are normally disposed between the inner ends of the bars or rods 7, as shown. To the upper ends of the wedge blocks 11, are pivotally connected the lower ends of pairs of operating plates or links 13, the upper ends of which are pivotally connected to cranks 14, arranged on and operatively connected with a rock shaft 15, which is journaled in suitable hangers 17, secured to the under side of the car. The rock shaft 15, is provided with a crank arm 18, to which is connected an operating rod 19. The operating rod 19 extends to and is connected with any suitable manual or power operating mechanism (not shown), whereby the shaft 15, may be rocked in the proper direction to actuate the brake operating blocks to apply or release the brake shoes.

By means of a brake operating mechanism constructed as herein shown and described, the brakes may be quickly and easily forced into operative engagement with the wheels of the car, and when the operating mechanism is released to disengage the wedge blocks from the brake operating rods or bars, the brake shoes will drop back out of engagement with the wheels by gravity.

From the foregoing description taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of the invention as defined in the appended claims.

Having thus described my invention, what I claim is:

1. In a brake operating mechanism for cars the combination with the transoms of a car truck of brake shoes loosely supported on said transoms, operating plunger rods

slidably mounted in said transoms and pivotally connected at their outer ends with said brake shoes, said plunger rods having beveled inner ends, a wedge block adapted to be engaged with and disengaged from the beveled ends of said plunger rods, said block having a reduced extension on its lower end to facilitate the insertion of the block between the rod ends and means for actuating said block to engage and disengage it from said rods.

2. A vehicle brake operating brake mechanism, comprising brake shoes, links to loosely support said shoes in position to engage the car wheels, slidably mounted plunger rods connected at their outer ends with said brake shoes, means whereby said rods are supported in operative position, wedge blocks arranged between the inner ends of said plunger rods, a rock shaft, operating cranks arranged on said shaft and connected to said blocks to force the same between the inner ends of said plunger rods and to retract the same from engagement therewith, and means whereby said rock shaft is operated.

3. In a brake operating mechanism for

cars, the combination with the transoms of the car truck of brake shoes loosely supported in position on said transoms, operating bars or plunger rods slidably mounted in said transoms and pivotally connected at their outer ends with said brake shoes, said plunger rods having beveled inner ends, wedge blocks adapted to be engaged with and disengaged from said plunger rods, said wedge blocks having reduced extensions on their lower ends to project between the inner ends of the plunger rods, supporting and operating plates connected to the upper ends of said wedge blocks, a rock shaft, operating cranks fixedly mounted on said rock shaft, and engaged with said supporting and operating plates, and means whereby said rock shaft is actuated to operate said wedge blocks, and thereby apply and release the brake shoes.

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

CHARLES ALEXANDER WILLIAMSON.

Witnesses:

JAMES W. DALEY,
JAMES TYNION.