

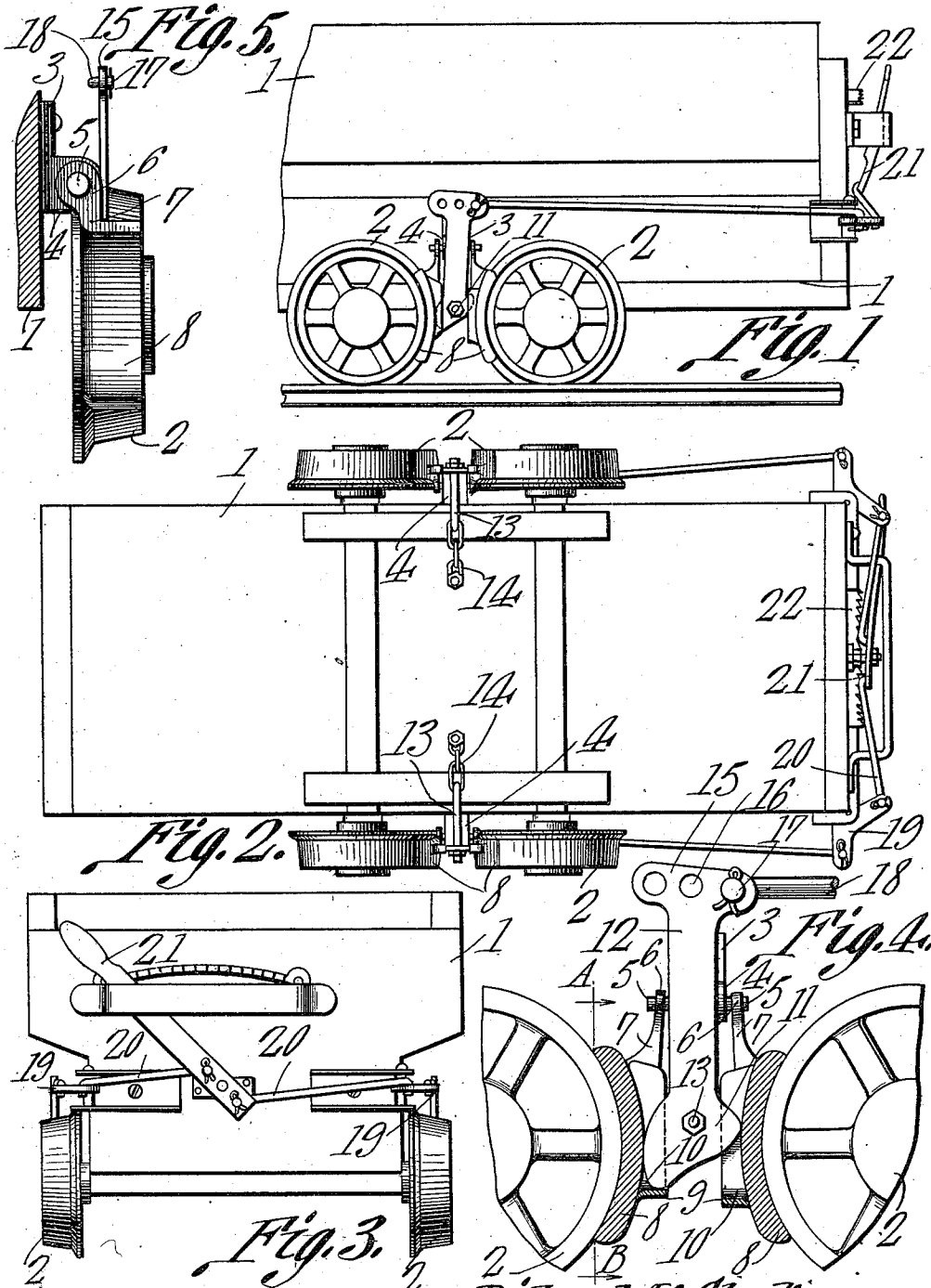
R. McCLOSKEY.

CAR BRAKE.

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989,790.

Patented Apr. 18, 1911.



Witnesses

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UNITED STATES PATENT OFFICE.

RILEY MCCLOSKEY, OF CARNEYVILLE, WYOMING.

CAR-BRAKE.

989,790.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, RILEY MCCLOSKEY, a citizen of the United States, residing at Carneyville, in the county of Sheridan and State of Wyoming, have invented a new and useful Car-Brake, of which the following is a specification.

This invention relates to brakes particularly designed for use upon mine cars and especially to apparatus for applying the brake shoes to the wheels of the car, said apparatus including wedging means connected to the shoes in a novel manner and exerting a powerful leverage upon the shoes so as to insure the application of the shoes to the wheels with any desired degree of pressure.

A further object is to provide means whereby the shoes are held against lateral displacement relative to their actuating means.

With the foregoing and other objects in view the invention consists in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of invention herein disclosed can be made within the scope of what is claimed without departing from the spirit of the invention.

In the accompanying drawings the preferred form of the invention has been shown.

In said drawings,—Figure 1 is a side elevation of a portion of a car having the present improvements applied thereto. Fig. 2 is a bottom plan view of the parts shown in Fig. 1. Fig. 3 is an end elevation of the car and showing the operating lever and the parts connected thereto. Fig. 4 is an enlarged view partly in side elevation and partly in section of the shoes and adjacent parts. Fig. 5 is a section on line A—B Fig. 4, the brake shoe being shown in elevation.

Referring to the figures by characters of reference 1 designates the car body of the usual or any preferred type and the supporting wheels have been designated at 2, these wheels being arranged in pairs, one pair being located at each side of the car and the wheels of each pair being close together.

Secured to each side of the car and at one side of the space between the wheels is a bracket 3 having an outstanding portion 4 provided with oppositely projecting sup-

porting pins 5. Each of these pins is loosely engaged by an ear 6 extending laterally from the upper portion of an arm 7, said arm being preferably formed integral with, and extending upwardly from a brake shoe 8. This brake shoe is formed with an arcuate working face designed to fit snugly against the periphery of one of the wheels 2, and formed upon the opposite face of each shoe is an enlargement 9 having an elongated groove 10 extending upwardly therein.

The grooves 10 receive opposite portions of a cam 11 located at the lower end of the lever 12, this lever being pivotally mounted upon a bolt 13 which, in turn, is connected to the bottom of the car body 1 by means of a short chain 14 or the like. The upper end of the lever 12 is formed with a head 15 having a series of openings 16 any one of which is designed to receive a stud 17 extending laterally from a rod 18, said stud being held within the aperture by a cotter pin or the like. The other end of the rod 18 is pivotally attached to a bell crank lever 19 mounted upon one corner portion of the car body and connected, as by means of a rod 20, to an actuating lever 21. This last lever is fulcrumed upon the end portion of the car and has any suitable means, such as a toothed segment 22 for engaging it and holding it in any position to which it may be moved.

It is of course to be understood that one set of brake shoes is located at each side of the car and that both sets are connected in the manner hereinbefore described, to the operating lever 21.

Each cam 11 is so shaped that, when the lever 12 is pushed in one direction by means of the mechanism provided for that purpose, the shoes 8 are permitted to hang freely from the projection 5 and without frictionally engaging the wheels 2 to such an extent as to retard their movement. When, however, the lever 12 is shifted in the other direction, the cam 11 acts as a spreading or wedging means and works within the grooves 10 so as to force the shoes 8 in opposite directions and tightly against the peripheries of the wheels. The degree of pressure is of course regulated by the amount of movement of the lever 12. As opposite portions of the cam project into the grooves 10, it will be apparent that said cam and the grooved extensions 9 thus cooperate to

prevent the shoes from becoming displaced laterally with relation to the lever 12 and the cam 11. Moreover as the shoes become worn, others can be readily substituted therefor without the necessity of replacing the cam or any of the other parts of the operating mechanism. By providing the flexible connection between the car body and the pivot of the lever 12, any necessary bodily movement of the lever and cam is permitted, thus insuring the application of both brake shoes with desired degrees of pressure and irrespective of any difference in the diameters of the wheels to which they are applied.

While the present improvements have been shown and described in connection with a mine car it is to be understood that they may be used in connection with various other structures.

What is claimed is:—

1. The combination with a structure and supporting wheels, of brake shoes loosely suspended between the wheels, a cam interposed between and engaging the shoes, a pivot device extending into the cam, a loose connection between the device and the structure, and means for shifting the cam to simultaneously shift the shoes in opposite directions.
2. The combination with a structure and supporting wheels, of brake shoes loosely suspended between the wheels, a spreading cam interposed between the shoes, grooved extensions upon the shoes for engagement by the cam to hold the shoes against lateral

displacement relative to the cam, and means for actuating the cam.

3. The combination with a structure and supporting wheels, of brake shoes suspended between the wheels, a spreading cam interposed between the shoes, means upon the shoes and coöperating with the cam for holding said shoes against lateral displacement relative to the cam, a pivot device engaged by the cam, a loose connection between said device and the structure, and means for actuating the cam.

4. A brake including a supporting element, brake shoes loosely suspended therefrom, a spreading cam extending between the shoes, means upon the shoes and co-operating with the cam for holding the shoes against lateral displacement relative to the cam, and means for actuating the cam.

5. In a brake the combination with a supporting element, of brake shoes loosely suspended therefrom, a self-centering spreading cam interposed between the shoes, means upon said shoes and coöperating with the cam for supporting said cam and for preventing lateral displacement of the shoes relative to the cam, and means for actuating the cam.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

RILEY MCCLOSKEY.

Witnesses:

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