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PATENTED SEPT. 10, 1907.

S. R. GREEN.

BRAKE FOR MINE CARS.

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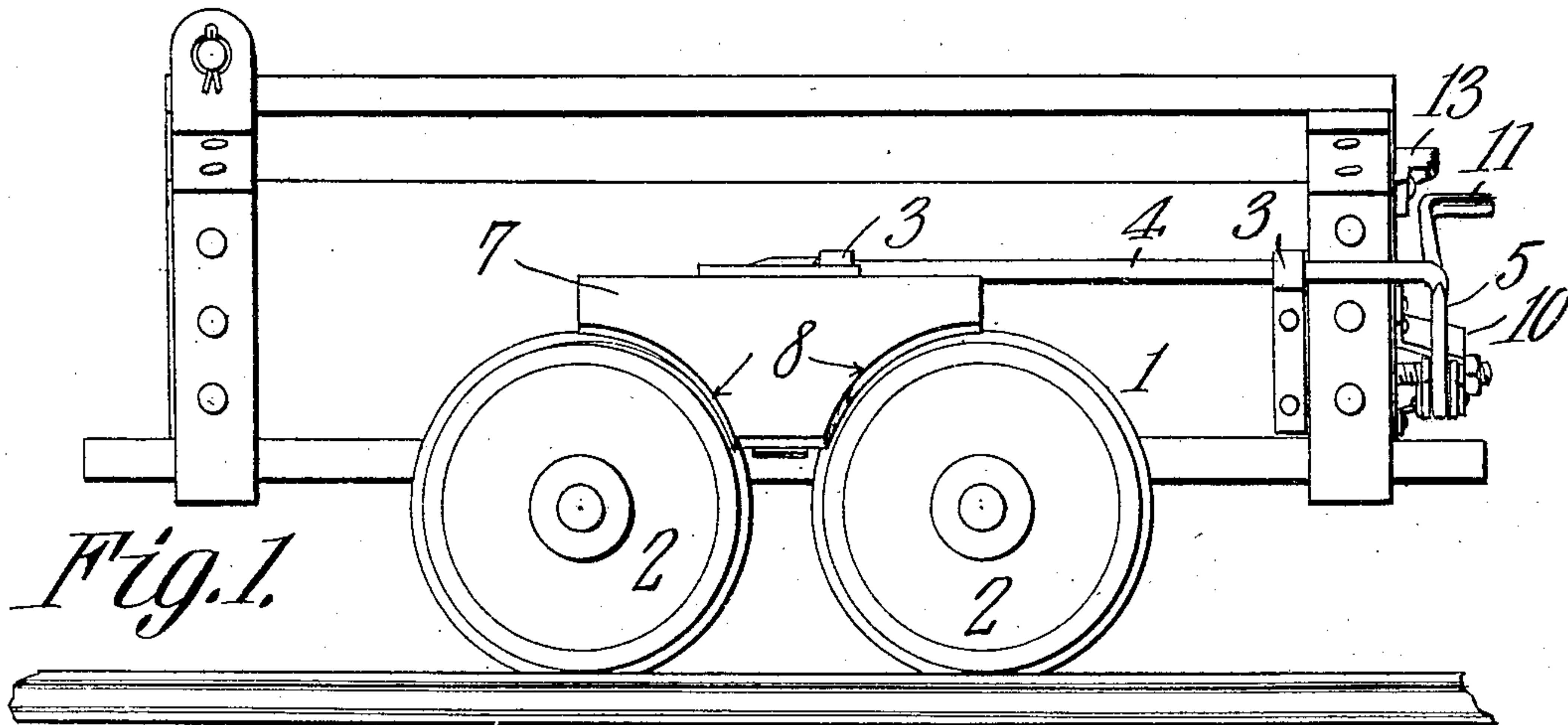


Fig. 1.

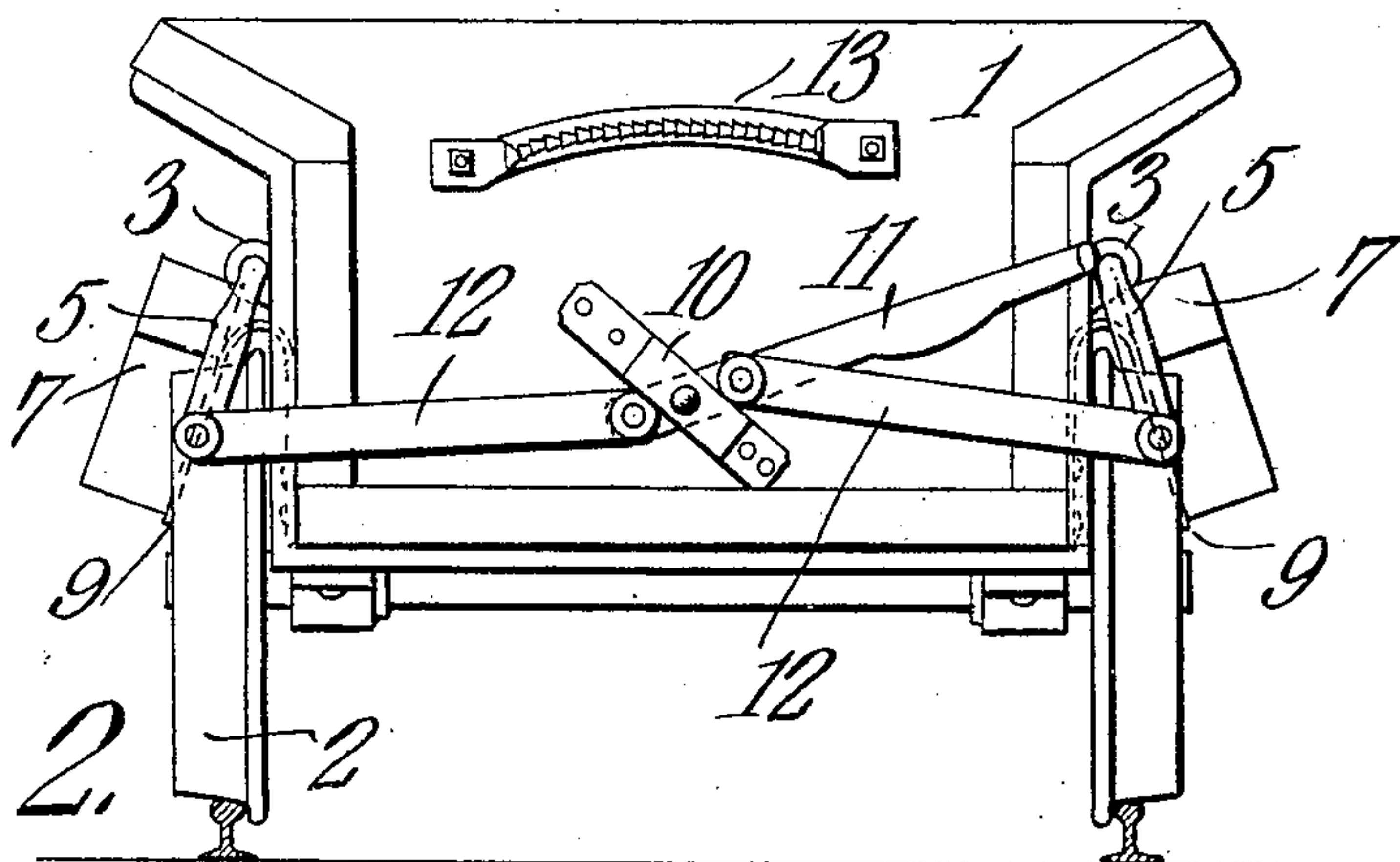


Fig. 2.

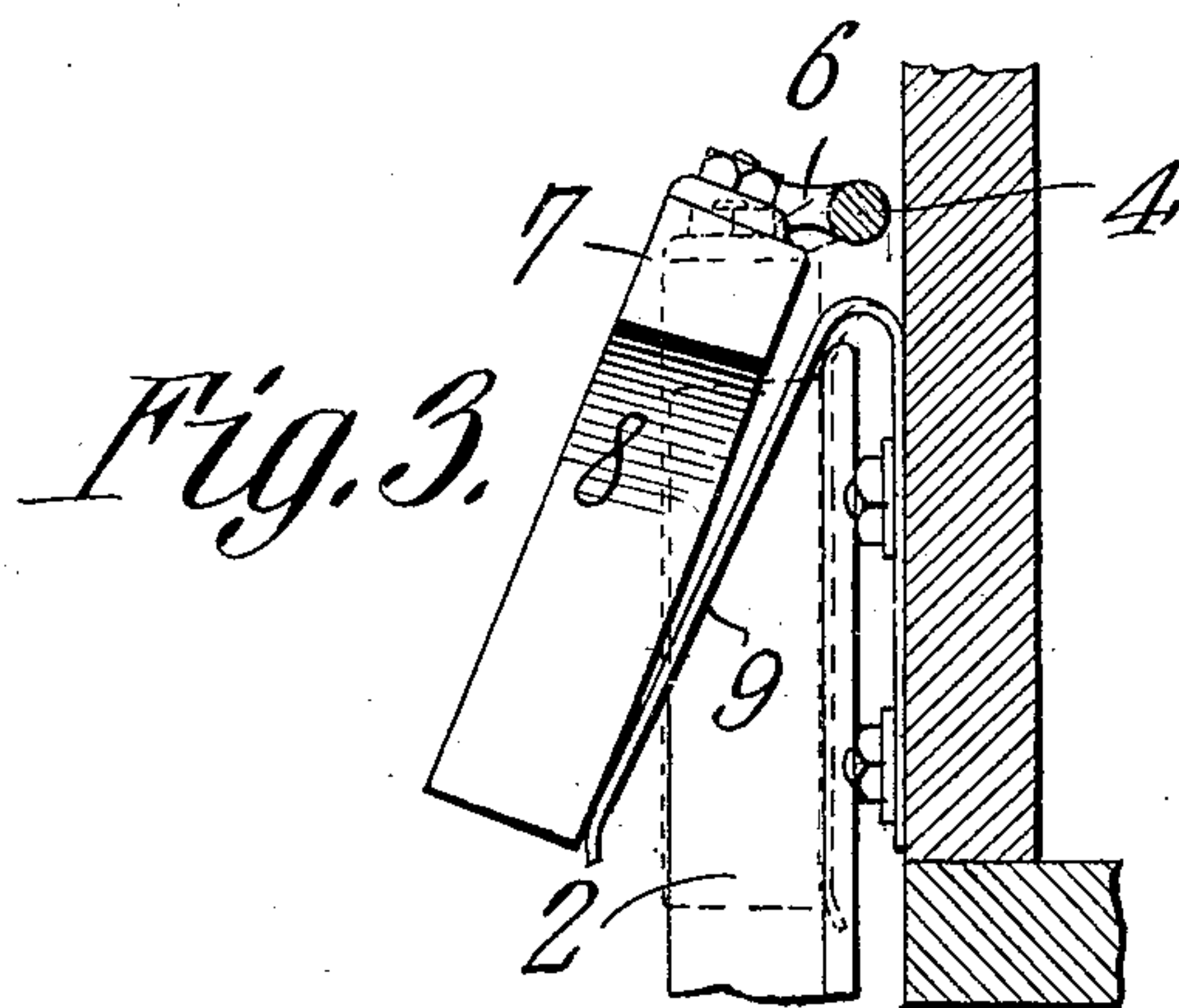


Fig. 3.

WITNESSES:

*E. J. Stewart*  
*Robert D. Lawson*

*Samuel R. Green,*

INVENTOR.

By

*C. A. Snow & Co.*

ATTORNEYS



# UNITED STATES PATENT OFFICE.

SAMUEL R. GREEN, OF GRASSFLAT, PENNSYLVANIA.

## BRAKE FOR MINE-CARS.

No. 865,378.

Specification of Letters Patent.

Patented Sept. 10, 1907.

Application filed June 22, 1907. Serial No. 380,330.

*To all whom it may concern:*

Be it known that I, SAMUEL R. GREEN, a citizen of the United States, residing at Grassflat, in the county of Clearfield and State of Pennsylvania, have invented a new and useful Brake for Mine-Cars, of which the following is a specification.

This invention relates to mine cars and more particularly to brakes for use in connection therewith.

One of the objections to brakes such as heretofore used in connection with cars of this character has been the fact that the brake blocks or shoes tend to ride upon the wheels whether or not the brakes are applied and therefore said shoes soon become worn and useless. Another objection which has been apparent heretofore is the tendency of the brakes to become loose when the car is being jolted as when passing over a rough track.

The object of the present invention is to overcome these objectionable features by providing a shoe or block which is held normally out of contact with the wheels and can not be applied thereto unless the brake operating device is actuated. The supports for the shoes also constitute means for binding the brake devices in locked position so that displacement as a result of jolting can not occur.

With these and other objects in view the invention consists of certain novel features of construction and combinations of parts which will be hereinafter more fully described and pointed out in the claims.

In the accompanying drawings is shown the preferred form of the invention.

In said drawings: Figure 1 is a side elevation of a mine car embodying the present improvements. Fig. 2 is an end elevation thereof. Fig. 3 is a section through a portion of the car and showing one of the brake blocks or shoes in end elevation.

Referring to the figures by characters of reference, 1 designates a car body mounted on wheels 2 of the usual form and extending along each side of the body and journaled within suitable brackets 3 is a rod 4 provided at one end with a crank 5 designed to swing over one end of the car. The other end of each of the rods 4 has an arm 6 which is rigidly secured in any suitable manner to the brake block or shoe 7 the lower corners of which are concave as shown at 8 and designed to bear upon the adjoining supporting wheels 2 of the car. A spring strap 9 is interposed between the car body and each of the brake blocks or shoes, said strap being preferably substantially V-shaped and bolted or otherwise secured to the car body. The two springs 9 serve to hold the blocks or shoes 7 normally extended outward from the sides of the car body and out of contact with the wheels. A bracket 10 is suitably secured upon one end of the car body and fulcrumed therein is a lever 11 having links 12 pivoted to it, one of said

links being disposed above and the other below the fulcrum of the lever. The two levers are also pivoted to the cranks 5. An arcuate toothed bar 13 is secured to the car body above the fulcrum of lever 11. The teeth upon this bar are in the form of ratchet teeth and the lever is designed to slide over them when swung in one direction but is held thereby against movement in the opposite direction unless the lever is first sprung outward so as to be disengaged from the teeth.

As has heretofore been stated the two brake shoes or blocks 7 are held normally out of contact with the wheels 2 by the springs 9, said blocks being designed to swing outward with the rods 4 as pivots. When it is desired to apply the brakes the lever 11 is swung into engagement with the bar 13 and will pull on the links 12 and cranks 5 so as to cause the brake blocks to swing inward into contact with the peripheries of the wheels. Springs 9 will therefore be compressed and will exert a constant pull upon the lever 11 and bind it against the tooth engaged thereby. Accidental displacement of the lever as the result of jolting is therefore prevented and the brake blocks are held positively in contact with the wheels. As soon as the lever 11 is released from engagement with the bar 13 the tensioned springs 9 will throw the brake blocks or shoes outward from the wheels 2 and will at the same time return all of the brake mechanisms to their initial positions.

What is claimed is:

1. The combination with a car; of a brake block, means for swinging said block in a plane extending transversely of the car to apply it to the periphery of a wheel of the car, and yieldable means interposed between the block and car for holding the block normally out of contact with the wheel.

2. The combination with a car; of brake blocks pivotally connected to opposite portions thereof, springs interposed between the blocks and car for holding said blocks normally out of contact with the wheels, an actuating device upon the car, means operated thereby for simultaneously swinging the blocks in a plane extending transversely of the car to tension the springs and contact with the peripheries of the wheels, and means for locking the actuating means against movement.

3. The combination with a car; of a rod mounted upon one side thereof, a brake block carried thereby, a spring interposed between said block and the car for holding the block normally out of contact with the wheels of the car, an actuating lever fulcrumed upon the car, and means for transmitting motion from the lever to the block to swing the block against the face of its spring and into contact with the peripheries of the wheels.

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

SAMUEL R. GREEN.

Witnesses:

G. G. POTTS GROVE,  
M. G. POTTS GROVE.