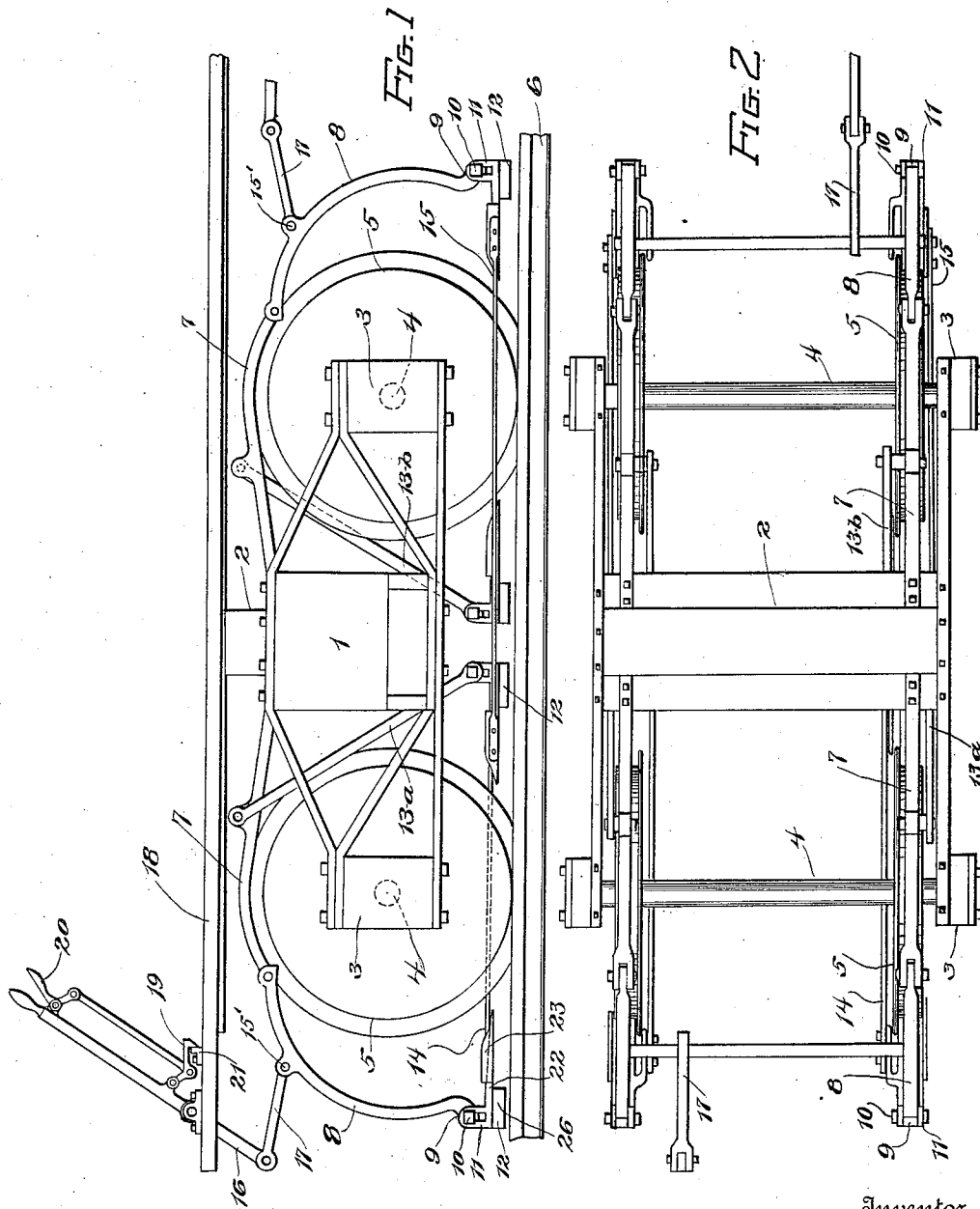


W. HEINIG.
 TRACK BRAKE.
 APPLICATION FILED DEC. 26, 1911.

1,046,293.

Patented Dec. 3, 1912.

2 SHEETS—SHEET 1.



Witnesses
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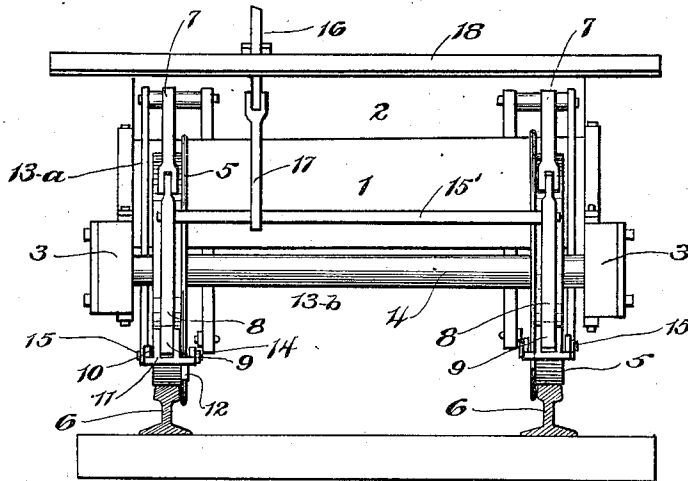


FIG. 4

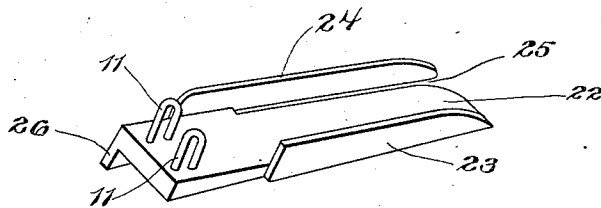


FIG. 3

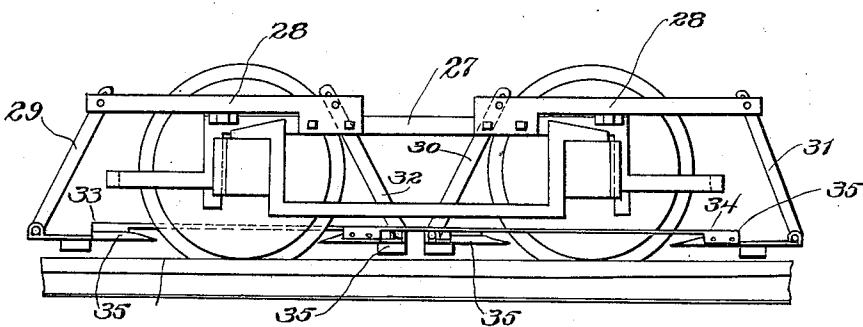


FIG. 5

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TRACK-BRAKE.

1,046,293.

Specification of Letters Patent.

Patented Dec. 3, 1912.

Application filed December 26, 1911. Serial No. 667,729.

To all whom it may concern:

Be it known that I, WILLIAM HEINIG, a citizen of the United States, residing at Fitchburg, in the county of Worcester and State of Massachusetts, have invented new and useful Improvements in Track-Brakes, of which the following is a specification.

This invention relates to brakes and more particularly to track brakes.

One of the principal objects of the invention is to provide a simple, and durable device of this character which may be conveniently operated to throw the brake shoes beneath the wheels so that the latter will ride up thereon and be stopped from rotation, the shoe sliding upon the rail.

A further object of the invention is the provision of a device of this character having means for connecting the brake shoes of the separate wheels of each truck so that both shoes are applied simultaneously on either side in either direction of movement of the truck.

A still further object of the invention is the provision of a novel type of shoe, which after raising the wheel from the track, prevents the truck from becoming derailed, so to speak.

Further objects of the invention will appear as the following specific description is read in connection with the accompanying drawing, which forms a part of this application, and in which:—

Figure 1 is a side elevation. Fig. 2 is a top plan view. Fig. 3 is a detail perspective view of the shoe used. Fig. 4 is an end elevation. Fig. 5 is a side elevation of the modification.

Referring more particularly to the drawings, 1 represents an ordinary car truck having a bolster 2 mounted thereon for the attachment of the car body and being provided with the journal boxes 3 in which the truck axles 4 are journaled, these truck axles carrying the usual flange wheels 5 for engagement with the ordinary type of rail 6. Secured to opposite sides of the truck at any suitable point and in any suitable manner are hanger supports 7 which have their outer ends curved to conform with the outline of the wheel, as shown. These supports

have pivoted to their outer ends the hangers 8 which are curved to conform with the outline of the wheel, and are provided at their lower ends with laterally extending ears 9 adapted to receive pivot pins 10 which extend through the yokes 11 carried upon the brake shoes 12. Intermediate the length of each support there is pivoted a hanger 13 which are further designated by the characters "a" and "b." These hangers carry shoes 12 at their lower ends and are arranged between the wheels of the truck, as shown, the hanger 13^a being adapted to operate upon the outside of the wheel, and the hanger 13^b being adapted to operate upon the inside of the wheel. The shoe 12 at the left hand side of the truck is connected by a rod 14 arranged upon the inner side of the wheel to the shoe 12 at the bottom of the hanger 13^a while the shoe 12 at the right hand side of the truck is connected by a rod 15 extending from the outside of the wheel to the shoe 12 at the bottom of the hanger 13^a. This arrangement is duplicated on the opposite side of the truck, as shown in Fig. 4, the hangers 8 at either end of the truck being connected together by cross rods 15' so as to insure simultaneous operation of the shoes upon both sides of the truck.

The cross rods 15' at each end of the truck are connected to the lower end of the levers 16 arranged at each end of the car, only one of which is shown, by means of connecting rods 17. These levers are pivoted upon the platform 18 and have a latching pawl 19 operated by a latch lever 20 operating over a toothed segment 21 and being in the position shown when the brakes are held in inoperative position. When the lever shown is operated, the shoes 12 carried by the hangers at the left hand end of the car and the shoes 12 carried by the hangers 13^b are moved downwardly and rearwardly beneath the wheels until the wheels grip thereon, at which time the wheels will ride upon the shoes until stopped by the hangers. The frictional action of the shoes upon the rails will cause the hangers 8 to bind against the periphery of the wheel and as the wheel is raised from the track 6, the rotation will be immediately stopped and the car will slide

along the tracks in a manner as if the wheels were set and actually slid upon the rails without producing the resulting flatness.

The shoes comprise a plate or body 22 having a side flange 23 extending through a portion of the length of the plate and raised above the same to form a retaining member for the wheel. The opposite side of the plate is provided with a flange 24 which is attached at one end to the plate and projects longitudinally thereof, but separated therefrom in the form of an arm. The space 25 between the arm 24 and the plate is provided for the flange of the wheel 5. Depending from the plate or body 22 is a flange 26 which is arranged on the same side of the plate with the flange 24 and is adapted to engage the inner side of the head of the rail and prevents the truck from becoming derailed when the wheels are raised from the track by the shoes. The connection between the hangers and the shoes is preferable such so that slight relative vertical movement between the parts is permitted or this lost motion may be allowed between the hangers in the supports, if necessary, so as to accommodate inaccuracies in the track or like reasons. As shown, the connecting rods hold the shoes in horizontal position.

In the modification shown in Fig. 5, the truck frame 27 is secured upon each side thereof to oppositely extending hanger supports 28 to which are pivoted the hangers 29, 30, 31 and 32. The shoes on the hangers 29 and 30 are connected together by a connecting rod 33 passing upon the inside of the wheels on each side of the truck, while the shoes on the hangers 31 and 32 are connected together by a rod 34 extending upon the outside of the wheels. Mounted upon the connecting rods 33 and 34 are the brake shoes 35 which are similar in all respects to shoes 12, shown in Figs. 1 to 4. These hangers are provided in a similar manner to the hangers shown in Fig. 1 or may be extended above the supports and joined together by connecting rods. In both instances, the shoes are preferably grooved upon their end faces so as to provide a better frictional contact with the rail.

What I claim is:—

1. In a brake, the combination with a wheel truck, of hanger supports carried thereby, shoe hangers pivoted to the supports and arranged in the front and in the rear of the wheels thereof, means for connecting the hangers in the rear of the wheels, means for independently operating the connected pairs of hangers, and shoes pivoted to the hangers and held in horizontal position by said connecting means.

2. In a brake, the combination with a wheel truck, of hanger supports carried thereby, shoe hangers pivoted to the sup-

ports and arranged in the front and in the rear of the wheels thereof, means for connecting the hangers in the rear of the wheels, means for independently operating the connected pairs of hangers, and shoes pivoted to the hangers and held in horizontal position by said connecting means.

3. In a brake, the combination with a wheel truck, hanger supports carried thereby and overhanging the wheels, hangers carried by the ends of the supports and adapted to operate at the end of the trucks, hangers pivoted to intermediate points on the supports and adapted to operate between the wheels, connecting rods each joining one of the outer and one of the inner hangers in pairs, means for independently operating the pairs of hangers, shoes operated by the hangers and held in operating position by the connecting rods, said shoes adapted to be projected beneath the wheels of the truck, and means carried by the shoes for preventing the derailment of the truck when the brakes are applied.

4. In a car brake, the combination of a truck and its wheel, supports on said truck, shoe hangers connected to said supports and having shoes pivoted thereon, connections between shoes of different wheels on the same rail which support the free ends of the shoes, and means for operating a hanger to cause both of said shoes to simultaneously engage the rail beneath the wheels.

5. In a car brake, the combination of a truck and its wheel, supports on said truck, shoe hangers connected to said supports and having shoes pivoted thereto at the front and rear of each wheel, connections between the shoes of the front hangers of each wheel, connections between the shoes of the rear hangers of each wheel, said connections supporting the free end of said shoes, and means for operating the hangers to cause the shoes to simultaneously engage the rail beneath the front or rear of each wheel.

6. In a car brake, the combination of a truck and its wheels, shoe hangers having shoes pivoted thereto, each provided with a flange to engage the side of the rail, connections between shoes of different wheels on the same rail which support the free ends of the shoes, and means for operating a hanger to cause the shoes of different wheels to simultaneously engage the rail beneath the wheels.

7. In a car brake, the combination of a truck and its wheels, shoe hangers, shoes pivoted thereto and having longitudinal flanges to embrace the sides of the wheel, means for moving one of said shoes between the rail and wheel, and connections between the shoes of different wheels on the same rail for causing the shoes of different wheels to act simultaneously, said connections supporting the free ends of the shoes.

8. In a car brake, the combination of a truck and its wheels, shoe hangers, shoes pivoted thereon and each having a flange to engage the side of the rail and longitudinal flanges to embrace the sides of the wheel, means for moving one of the hangers to project its shoe between the rail and wheel, and connections between shoes of different wheels on the same rail to cause the shoes

of different wheels to act simultaneously, 10 said connections supporting the free ends of the shoes.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM HEINIG.

Witnesses:

ERNEST J. ADLER,

HUGO MOSCHNER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."