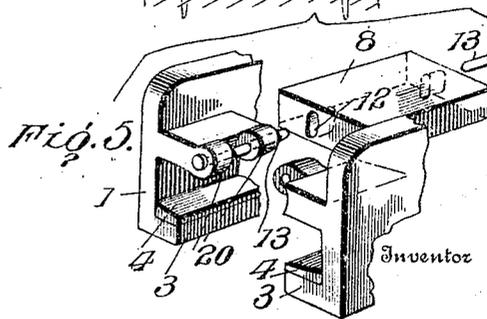
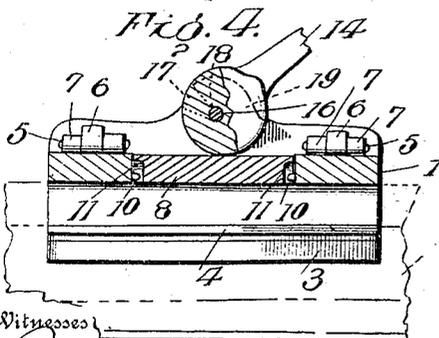
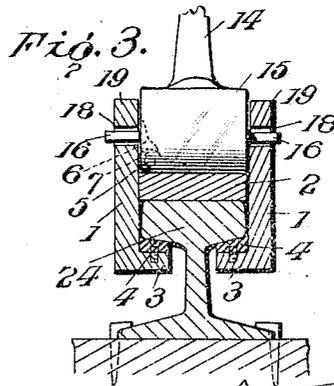
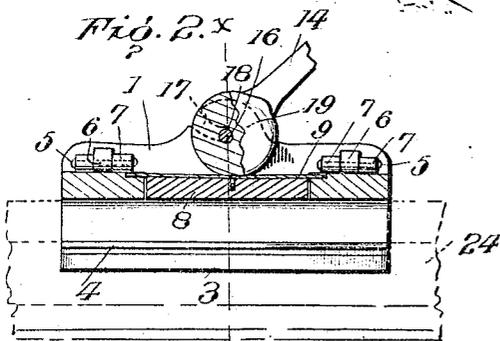
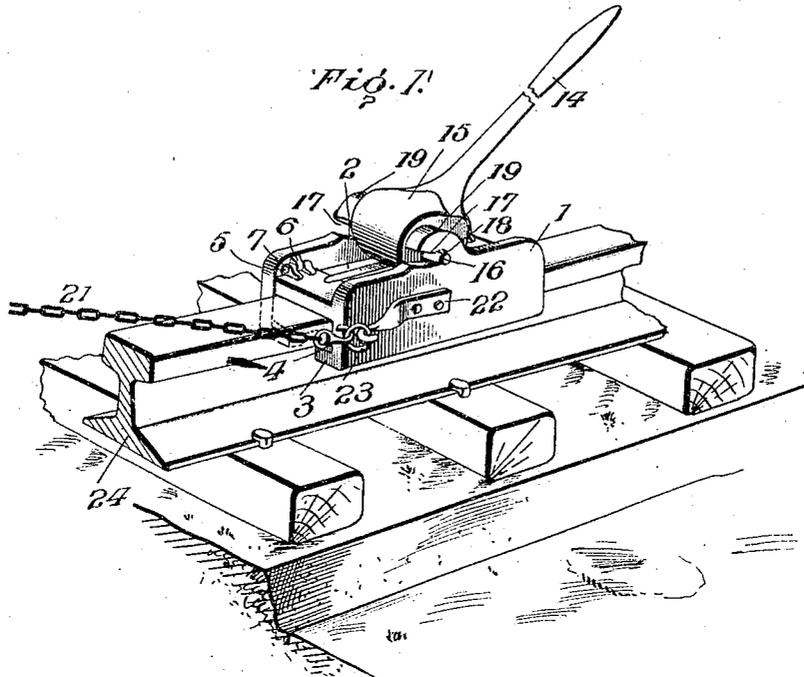


No. 831,055.

PATENTED SEPT. 18, 1906.

B. V. GILMORE.
RAIL BRAKE.
APPLICATION FILED FEB. 12, 1906.



Witnessed

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UNITED STATES PATENT OFFICE.

BENJAMIN V. GILMORE, OF RED HOUSE SHOALS, WEST VIRGINIA.

RAIL-BRAKE.

No. 831,055.

Specification of Letters Patent.

Patented Sept. 18, 1906.

Application filed February 12, 1906. Serial No. 300,831.

To all whom it may concern:

Be it known that I, BENJAMIN V. GILMORE, a citizen of the United States, residing at Red House Shoals, in the county of Putnam and State of West Virginia, have invented certain new and useful Improvements in Rail-Brakes, of which the following is a specification.

This invention is designed chiefly as an improvement on the device for which Letters Patent of the United States were granted me November 28, 1905, No. 805,644.

The purpose of the invention is to devise a structure which may be quickly and easily applied to a rail and as easily removed therefrom, the frame being constructed in such a manner as to open and close to clear the head of the rail and being braced when closed by means of the lever, all as will be more fully described hereinafter and pointed out in the appended claims.

For a full description of the invention and the merits thereof and also to acquire a knowledge of the details of construction of the means for effecting the result reference is to be had to the following description and accompanying drawings, in which—

Figure 1 is a perspective view of a rail-brake embodying the invention, showing the same in operative position. Fig. 2 is a vertical central longitudinal section thereof. Fig. 3 is a transverse section on the line *xx* of Fig. 2. Fig. 4 is a view similar to Fig. 2, showing a modification. Fig. 5 is a perspective view of a further modification, showing the parts separated.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

The rail-brake comprises a suitable frame, an operating-lever, and a brake-shoe, the frame being of such construction as to embrace the head of the rail in such a manner as to prevent displacement therefrom.

The frame comprises similar side pieces 1, a connecting-piece 2, and inner flanges 3 at the lower edges of the side pieces 1 and adapted to engage under the head of the rail and sustain upward stress. The inner flanges 3 are provided upon their upper sides with a covering 4—such as leather, wood, or the like—to sustain the wear and engage frictionally with the under side of the head of

the rail at each side of the web thereof. The frame is adapted to open or spread to admit of the inner extensions 3 clearing the head of the rail to permit of the device being placed in position or removed from the rail with convenience and despatch. For this purpose the frame is constructed to open longitudinally, and one or both side pieces are adapted to move laterally, as shown most clearly in Figs. 3 and 5. In the preferred construction one of the side pieces is hinged or pivotally connected to the transverse tie 2 in a manner to admit of the lower edge swinging outward and the upper edge inward. The hinge or pivotal joint is indicated at 5, thereby admitting of the lower portion of the movable side piece abutting against the proximal longitudinal edge of the tie 2, so as to limit the relative inward movement of the flanges 3 and prevent their coming in contact with the web of the rail or the fish-plates at the joints thereof. The movable side piece may be pivoted or hinged to the tie 2 in any manner, and, as shown, lugs 6 and 7 are formed with said parts and are apertured to receive the pintles connecting the pins.

The middle portion of the transverse connecting or tie piece 2 is formed with an opening to receive a plate 8, which constitutes the brake-shoe and which may be of any material best adapted for the purpose. The plate or brake-shoe 8 is prevented from downward displacement by suitable means, which, as shown most clearly in Fig. 2, may consist of a spring 9 and, as shown in Figs. 4 and 5, of a projection and slot. In the construction shown in Fig. 2 a spring 9 is secured to each end of the brake-shoe and projects therefrom to overlap the part of the tie 2 bordering upon the opening in which the brake-shoe is fitted. In the construction shown in Fig. 4 a teat or projection 10 is formed or provided upon the inner edge of the part 2 bordering upon the opening in which the brake-shoe is fitted and enters a slot 11, formed in the edge of the brake-shoe, the slot projection 10 being so disposed as to admit of the brake-shoe having a limited vertical play without dropping through the opening of the tie 2 when the device is removed from the rail. In the construction shown in Fig. 5 the slot 12, formed in each end of the brake-shoe 8, is closed at its upper and lower ends and receives the inner end of the pin 13

employed for pivotally connecting the side pieces or members of the frame. This construction prevents both vertical and downward displacement of the brake-shoe when the device is disengaged from the rail.

The operating-lever 14 is formed with a cam-head 15 of a width corresponding approximately to the transverse extent of the tie 2 or the distance between the side pieces 1, so as to fit snugly between said side pieces and prevent inward displacement thereof about the transverse connecting or tie piece 2, thereby holding the inner flanges 3 or lower brake members in position for cooperation with the head of the rail. The operating-lever is preferably connected to the frame at a point midway of its ends and is removably fitted thereto, so as to admit of separating or spreading the lower portions of the side pieces 1 to enable the parts 3 to clear the head of the rail, which is necessary when it may be required to remove the device from the rail or place it in position thereon. Journals 16 project from opposite sides of the cam-head 15 and are adapted to enter slots 17, formed in the side pieces 1, the inner ends of said slots having an upper depression 18 to form a seat in which the journals 16 enter to prevent displacement of the cam-lever when the same is under tension or moved to a position to cause the brake members to grip the head of the rail. The side pieces 1 are widened or formed with extensions 19, in which the slots 17 and depressions or seats 18 are formed and which obtain a bearing against opposite sides of the cam-head 15 to admit of the latter bracing the side pieces 1 to hold them in operative position, so as to sustain and resist the strain when the brake is in active operation. The journals 16 may be a part of the operating-lever or may be projecting end portions of a pin passed transversely through an opening formed in the head 15. The operating-lever 14 may be detachably connected with the frame in any manner and constructed in any way so long as it serves when in position to prevent inward movement of the side pieces 1 and when removed to admit of the side pieces separating or spreading at their lower edges to enable the brake members 3 to clear the head of the rail. It will thus be understood that the operating-lever serves both as a brace as well as convenient means for applying the brake or causing the members 3 and 8 to grip the head of the rail.

In the construction shown in Fig. 5 the transverse connecting-piece or tie 2 is of sectional formation, each section or part being formed with a side piece 1 and the inner edges being formed with companion knuckles 20, which are pierced to receive the pintle or pivot-pin 13. This construction admits of both members or side pieces of the frame having a like movement.

The frame may be cast or constructed in any manner, and in practice the draft chain or cable 21 may be connected thereto as found most advantageous, and for this purpose a strap-iron 22 is riveted or otherwise fastened to a side of the frame and is provided at its outer end with a ring 23, to which the part 21 is hooked or connected. The degree of resistance to the movement of the rail-brake may be regulated by manipulation of the lever 14 to cause the brake members 3 and 8 to grip the head of the rail 24 with a greater or less pressure, as will be readily understood.

Having thus described the invention, what is claimed as new is—

1. A rail-brake comprising a frame embodying transversely-movable side pieces, and an operating-lever detachably connected with said frame by means of a sliding movement, and adapted when in position to brace said frame.

2. In a rail-brake, a frame comprising transversely-movable side pieces having slots extended inward from their upper edges, and an operating-lever provided with side journals to enter said slots by a sliding movement, said lever serving to brace the frame and prevent relative movement of the side pieces thereof.

3. A rail-brake comprising a frame consisting of similar side pieces and a transverse connecting-piece or tie, the latter having rigid connection with one of the side pieces and pivot or hinged connection with the other side piece at a point above the plane of said tie, and an operating-lever removably fitted to the frame between extensions of the side pieces above the transverse connecting piece or tie.

4. In a rail-brake, the combination of a frame comprising similar side pieces and a transverse connecting-piece or tie having rigid connection with one of the side pieces and hinged or pivot connection with the other side piece, said side pieces having vertical extensions in which are formed slots, and an operating-lever provided with a cam-head having journals at its sides to enter the slots of said extension, said cam-head fitting snugly between said extensions and serving to brace the frame laterally and prevent relative lateral movement of the side pieces thereof.

5. A rail-brake comprising a frame embodying side pieces and a transverse connecting-piece or tie in which an opening is formed, a brake-shoe loosely fitted in said opening, means cooperating with said brake-shoe and frame to retain said brake-shoe in place when the device is removed from the rail, and an operating-lever detachably fitted to said frame.

6. A rail-brake comprising a frame embodying side pieces and a transverse con-

necting-piece or tie in which an opening is formed, cooperating projections and slots between the brake-shoe and the said tie to prevent displacement of the brake-shoe when the device is removed from the rail, and a cooperating-lever having detachable connection with the frame.

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

BENJAMIN V. GILMORE. [L. s.]

Witnesses:

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V. B. HILLYARD