

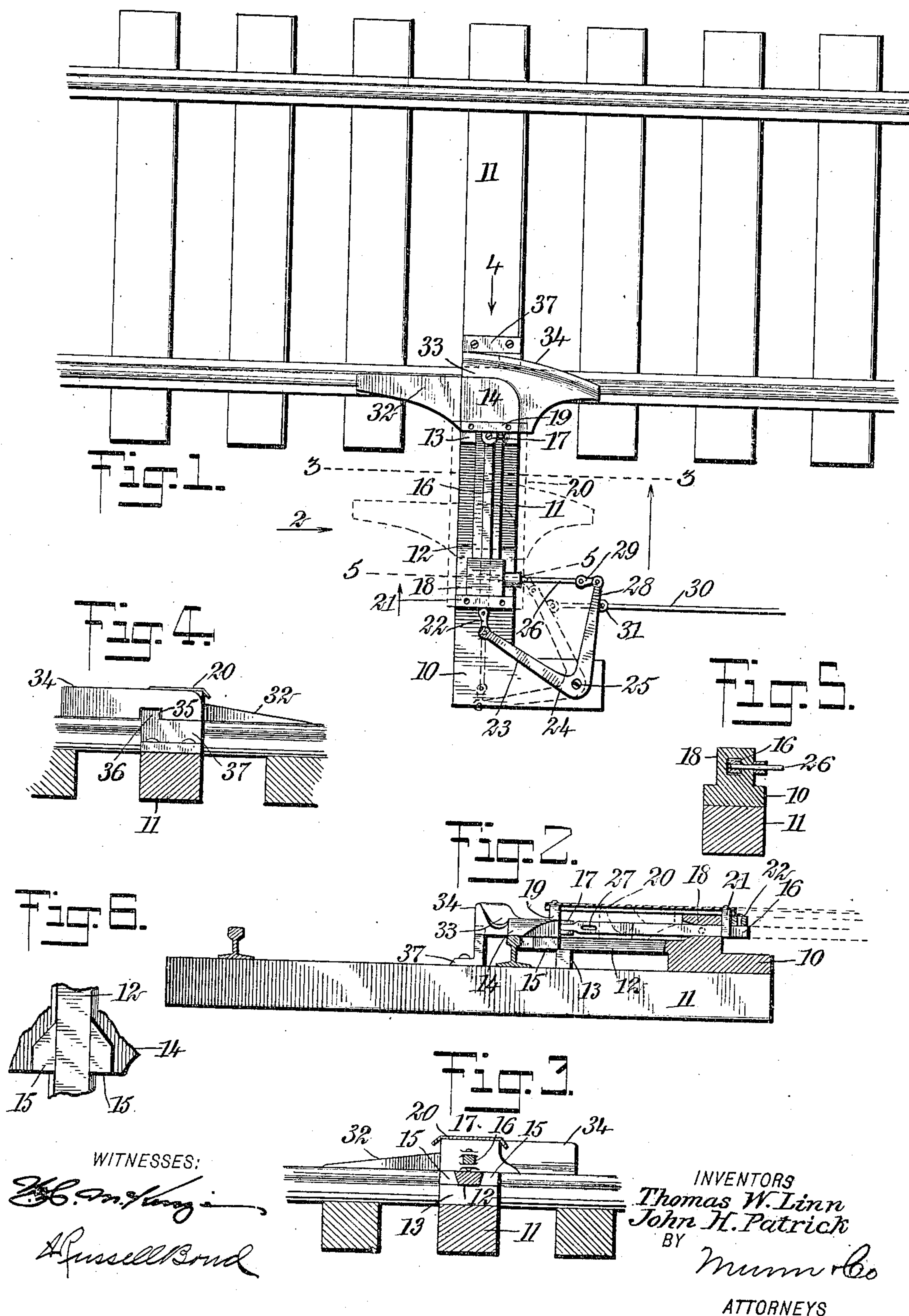
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PATENTED JULY 10, 1906.

T. W. LINN & J. H. PATRICK.

DERAILER.

APPLICATION FILED MAR. 19, 1906.



UNITED STATES PATENT OFFICE.

THOMAS W. LINN AND JOHN H. PATRICK, OF CLYMERS, INDIANA.

DERAILER.

No. 825,740.

Specification of Letters Patent.

Patented July 10, 1906.

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To all whom it may concern:

Be it known that we, THOMAS W. LINN and JOHN H. PATRICK, citizens of the United States, and residents of Clymers, in the county of Cass and State of Indiana, have invented a new and Improved Derailer, of which the following is a full, clear, and exact description.

The invention relates to a device for derailing railway rolling-stock.

The device may be used on sidings to prevent cars on the siding from accidentally entering the main track or at a railway-crossing to prevent cars from running onto the crossing when the signal is set against them.

One of the important features of the invention is the provision of a shield or covering for protecting the device from rain or snow and from dirt, also the provision of means on the derailer for cutting through and clearing away any ice, snow, or dirt which may have accumulated between the rail and the derailer.

The invention also comprises many other important features, as will be hereinafter fully described.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a plan view of the device, showing it as applied to a railway-track, the shield being removed to reveal details of the mechanism. Fig. 2 is a side elevation, partly in section, viewed in the direction of the arrow 2, Fig. 1. Fig. 3 is a section taken on the line 3 3 of Fig. 1 looking in the direction of the arrow. Fig. 4 is an end elevation of the derailer as viewed in the direction of the arrow 4, Fig. 1. Fig. 5 is a section taken on the line 5 5 of Fig. 1, and Fig. 6 is a bottom view of a portion of the derailer.

The device comprises a base-plate 10, which may be secured by any suitable means to a tie 11 of a railway-track, said tie being preferably longer than the other ties of the track. The base-plate 10 is formed with a slideway 12, extending toward the track, near which it is supported by a cross-piece 13, secured to the tie 11. This cross-piece is preferably formed integral with the slideway 12. The derailing-plate 14 is mounted to slide on the slideway 12. The slideway may be undercut, as shown in Fig. 3, or otherwise formed to provide a gripping-surface for a

pair of slides 15 on the under face of the derailing-plate. These slides are beveled at their forward ends—that is, the ends nearest the track, (see Fig. 6)—for purposes that will be hereinafter explained. A bar 16 is connected at 17 to the derailing-plate and passes through an opening in a block 18, which is formed on the base-plate 10. Attached at one end to a rib 19 on the derailing-plate 14 is a shield 20, which extends over the block 18 and is attached at its opposite end to a plate 21, formed on the bar 16. This shield, as indicated by dotted lines in Fig. 1, covers the slideway and prevents the accumulation of dirt or snow and the like, which might hinder the derailing-plate from movement along the slideway.

The bar 16 is connected by a link 22 to an arm 23 of an angle-lever 24. This lever is fulcrumed to the base-plate at 25. Fig. 1 shows the derailing-plate in its active position on a rail of the track. It will be evident that by swinging the lever 24 to the position shown by dotted lines the derailing-plate will be drawn clear of the track, as shown by dotted lines in Fig. 1. In this position the derailing-plate 14 is held by a locking-pin 26, which slides through a transverse bore in the block 18 and engages a slot 27 in the bar 16. The outer end of the locking-pin 26 is connected to the arm 28 of the angle-lever by means of a link 29. The arm 28 thus moves the pin 26 to the locking position, Fig. 5, while the derailing-plate is being withdrawn by the arm 23. The lever 24 may be operated by a rod 30, connected thereto at 31.

The derailing-plate 14 may be of any suitable form designed to guide a car-wheel off the track. It is preferably formed with an inclined face 32, so that a car-wheel traveling up this inclined face will be raised sufficiently for the flange of the wheel to clear the rail. The flange of the wheel then traveling in the groove 33 will be guided by a marginal rib 34 over the rail and off the track. In order to hold the derailing-plate 14 firmly in operative position and relieve the slides 15 from undue lateral strain, said derailing-plate is formed with a socket 35, adapted to receive an ear 36 on a bracket 37, which is fastened to the tie 11 near the inner side of the track-rail. The derailing-plate 14 is thus afforded support on both sides of the track-rail and is enabled to withstand any lateral strain to which it may be subjected.

In practice the rod 29 may be operated di-

rectly by a hand-lever, (not shown,) or it may be connected to a switch-lever in such manner that when the switch is open the derailing-plate is withdrawn from the rail and when the switch is closed the derailing-plate is moved to active position on the rail. When used on a street-car line near a railway-crossing, the shaft 28 may be connected with the signal-operating devices in such manner as to move the derailing-plate into active position when the signal is set at "danger," so that if the danger-signal is disregarded the car will be derailed, and thus prevented from running onto the crossing.

It will be noted that when the derailing-plate 14 is withdrawn a portion of the slide is left exposed, permitting the accumulation of snow, ice, or dirt between the rail and the derailing-plate. However, this will not hinder the derailing-plate from being moved forward to the active position, for the beveled slides 15 will cut through the obstruction, clearing it off the slideway.

Having thus described our invention, we claim as new and desire to secure by Letters Patent—

1. The combination of a slideway, a derailing member mounted to slide on said slideway, and means on said derailing member for clearing said slideway of obstructions.

2. The combination with a derailing member adapted to move in a path toward and from a track-rail, of means connected with said derailing member for clearing said path of obstructions.

3. The combination of a slideway, a derailing member, and slides on said derailing member engaging said slideway, said slides being formed with cutting edges at their forward ends.

4. The combination of a slideway, a derailing member, and slides on said derailing member engaging said slideway, said slides being formed with cutting edges, and a shield attached to said derailing member.

5. The combination of a slideway, a derailing member adapted to slide on said slideway, said derailing member being formed with a notch, a bracket, and an ear on said bracket adapted to engage said notch, said slideway being secured at one side of a track-rail and said bracket being secured on the opposite side of said track-rail.

6. The combination of a base, a slideway

formed thereon, a derailing member mounted to slide on said slideway, a bar connected to said derailing member, said bar being formed with a slot, a locking-pin adapted to engage said slot, an angle-lever, one arm of said lever being connected with said bar, and the other arm of said lever being connected with said locking-pin, and means for operating said angle-lever.

7. The combination of a base, a slideway formed thereon, a derailing member, slides on said derailing member engaging said slideway, said slides being formed with cutting edges, a bar connected to said derailing member, said bar being formed with a slot, a locking-pin adapted to engage said slot, an angle-lever mounted on said base, one arm of said lever being connected with said bar, and the other arm of said lever being connected with said locking-pin, and means for operating said angle-lever.

8. The combination of a base, a slideway formed thereon, a derailing member, slides on said derailing member engaging said slideway, said slides being formed with cutting edges, a shield attached to said derailing member, a bar connected to said derailing member, said bar being formed with a slot, a locking-pin adapted to engage said slot, an angle-lever mounted on said base, one arm of said lever being connected with said bar, and the other arm of said lever being connected with said locking-pin, and means for operating said angle-lever.

9. A derailing member mounted to slide, means on one side of a rail for moving said derailing member into and out of active position, and means on the opposite side of said rail for holding said member in its active position against displacement along said rail.

10. A derailing member adapted to be moved into and out of active position, and a locking member acting automatically to lock said derailing member when the latter is moved out of active position.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

THOMAS W. LINN.
JOHN H. PATRICK.

Witnesses:

WM. H. SMITH,
BRUCE REED.