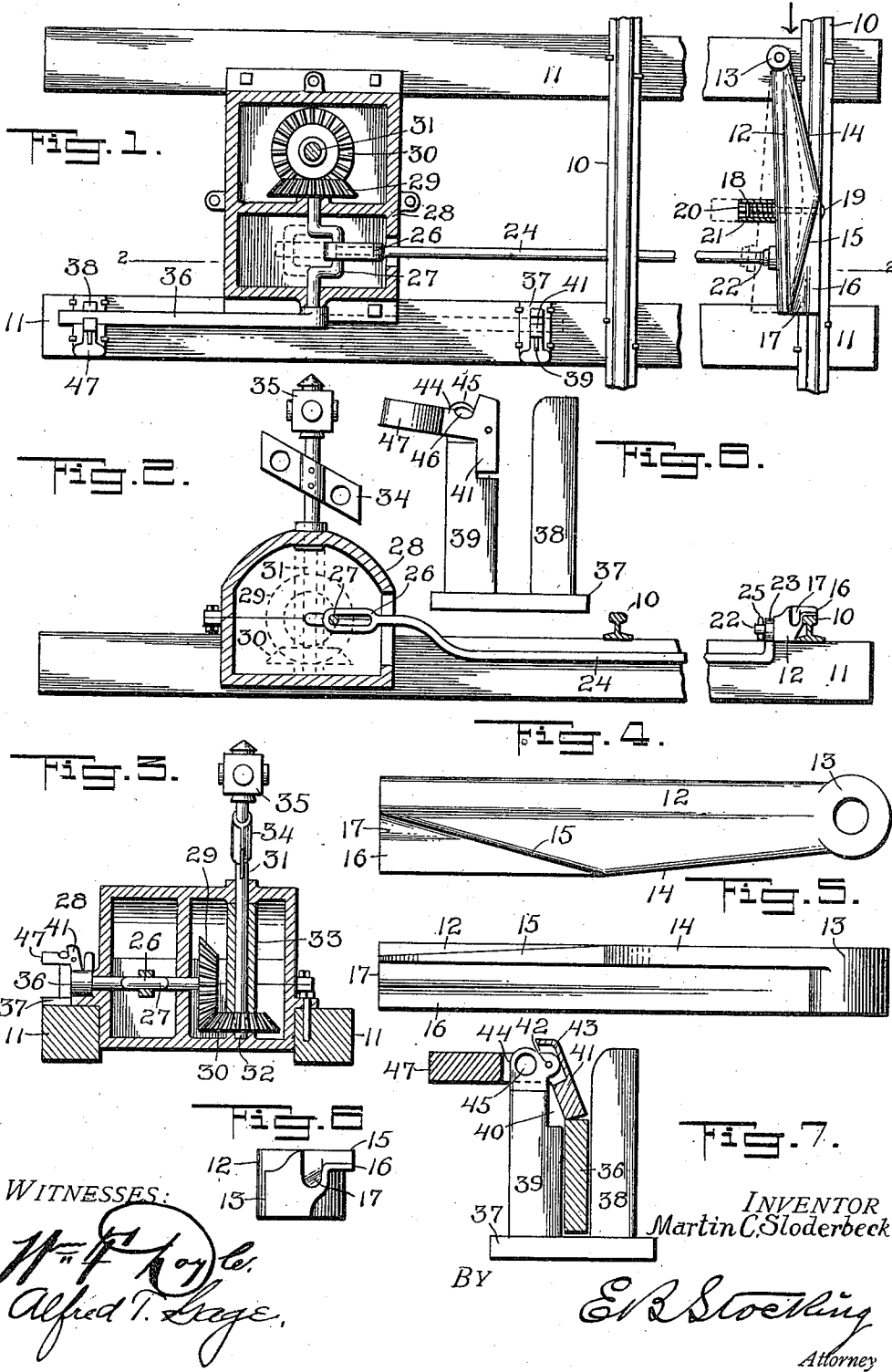


M. C. SLODERBECK.
AUTOMATIC DERAILER.
APPLICATION FILED OCT. 25, 1909.

974,715.

Patented Nov. 1, 1910.



UNITED STATES PATENT OFFICE.

MARTIN C. SLODERBECK, OF MARION, INDIANA, ASSIGNOR OF ONE-THIRD TO EDWARD E. LEAPLEY AND ONE-THIRD TO EDWARD F. WALSH, BOTH OF MARION, INDIANA.

AUTOMATIC DERAILER.

974,715.

Specification of Letters Patent.

Patented Nov. 1, 1910.

Application filed October 25, 1909. Serial No. 524,521.

To all whom it may concern:

Be it known that I, MARTIN C. SLODERBECK, a citizen of the United States, residing at Marion, county of Grant, State of Indiana, have invented certain new and useful Improvements in Automatic Derailers, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to an automatic derailer and particularly to means for operating the same and locking it in adjusted position.

The invention has for an object to provide a novel and improved construction of derailer adapted to be automatically operated in one direction together with means for shifting the derailer into either of its adjusted positions and locking it in such positions.

Other and further objects and advantages of the invention will be hereinafter set forth and the novel features thereof defined by the appended claims.

In the drawings—Figure 1 is an elevation with parts in sections showing the application of the invention; Fig. 2 is a vertical section on line 2—2 of Fig. 1; Fig. 3 is a vertical cross section at a right angle to Fig. 2; Fig. 4 is a plan of the derailer; Fig. 5 is a side elevation thereof; Fig. 6 is an end elevation of the derailer; Fig. 7 is a vertical section of the latch in locking position; and Fig. 8 is a side elevation of the latch in released position.

Like numerals of reference refer to like parts in the several figures of the drawing.

The numeral 10 designates the track rails which are secured in the usual manner upon the ties 11 or any other desired foundation. Coöperating with one of the rails 10 is a derailer 12 pivotally mounted upon a tie at 13 and provided with an inclined face 14 by which the derailer may be automatically opened by contact with the flange of a car wheel. Extending at an angle to the opening face 14 is a derailing face 15 which is disposed across a lip or flange 16 adapted to lie over the tread of the rail 10 as shown in Figs. 1 and 2. This face is provided with a downwardly inclined groove or way 17 into which the wheel flange enters and is guided upward to contact with the derailing face 15 by which it is deflected over the track rail. This derailer is normally held

in contact with the rail as shown in Fig. 1 by means of the tension spring 18 bearing upon the derailer and surrounding a bolt 19 extending through the rail and provided with a head 20. The spring may be inclosed within a casing 21 as shown.

The derailer is provided with a pin 22 adapted to receive the eye 23 of the operating rod 24 which is secured thereon by means of a pin 25. The opposite end of this rod is provided with an elongated slot 26 mounted upon the crank shaft 27 which is journaled in the casing 28 adapted to inclose the operating parts. This crank shaft is provided at one end with a beveled gear 29 meshing with a coöperating gear 30 carried by the lower end of the signal post 31 and having a bearing at 32 in the casing 28. Surrounding this post is a sleeve 33 to retain the gear 30 in position. The upper end of the post 31 is provided with any desired construction of signal target 34 and signal lantern 35 these being given a half revolution at each operation of the derailer. The outer end of the crank shaft 27 is provided with an operating lever 36 by which the derailer may be shifted and held in open position as shown by dotted lines in Fig. 1. For the purpose of locking or latching this operating lever in its opposite positions an improved form of latch is provided which comprises a base plate 37 having a standard 38 rising therefrom and an opposite standard 39 spaced to receive the operating lever 36 as shown in Fig. 7. The standard 39 is provided with a recess 40 upon its inner face adapted to receive the angular portion 41 of the latch which is pivoted to the lateral lug 42 of the standard 39. This latch is provided with a recessed portion 43 to embrace said lug and with a bifurcated portion 44 to embrace the upper end of the standard 39 which is formed with an aperture 45 to receive a lock or other securing device for retaining the parts in latched position. The bifurcated portion 44 is provided with a curved face 46 to permit the application of this locking device while the outer end of the latch is formed with a weighted portion 47 to normally move and hold the latch in securing position as shown in Fig. 7.

When a train desires to enter the switch or section of track to which the derailer is applied, the wheel flange engages the open-

ing face of the derailer and the slotted connection with a crank shaft of the signal post permits the automatic operation of the derailer without altering the signal while the tension spring automatically restores the derailer to position in contact with the track rail. When it is desired to move a car from the switch the derailer may be withdrawn from position by shifting the operating lever from the full line position shown in Fig. 1 to the dotted line position therein which permits the free travel of the wheel upon the rail without contact with the derailer and places the spring thereof under tension. When the derailer is in the full line position the wheel flange will enter the groove therein and riding up and over the rail derail the car. The operating lever for the derailer is automatically latched in either position as in passing downward between the standards it forces backward the latch plate and falls into a position below said plate which is automatically moved over the lever by its weighted portion. In order to release the lever this weighted portion is raised to bring the latch into the recess of the standard as shown in Fig. 8 to permit the free removal and shifting of the lever. It will thus be seen that it is only necessary for the operator to unlock and shift the lever when it is desired to release the rolling stock from the side track through the derailer, as passage into the side track or section can be made through the automatic operation of the derailer by the wheel flange. It will therefore be seen that this invention presents a simple, efficient and economically constructed derailer and means for operating and latching the same in its adjusted position.

What I claim is—

1. The combination with a movable derailer, of a rod extending therefrom and provided with an elongated slot, a shaft having a crank portion mounted in said slot, a laterally disposed operating lever carried by said crank shaft, spaced standards adapted to receive said lever intermediate thereof one of which is recessed upon its inner face, a latch pivoted upon the upper end of one of said standards to seat in said recess and depend between them and contact with the upper face of said arm, and a weighted member carried by the opposite

end of said latch and extended laterally from the standard upon which it is pivoted.

2. The combination with a movable derailer, of a shaft connected to shift the same, a crank arm carried by said shaft, spaced standards adapted to receive said arm intermediate thereof, a latch pivoted upon the inner face of one of said standards to depend between them and contact with the upper face of said arm, and a weighted member carried by the opposite end of said latch and extended laterally from one standard.

3. In a derailer, a movable derailer block, an operating connection therefrom provided with a lever, parallel standards spaced from each other and one provided with a recess at the upper portion of its inner face, a latch pivotally mounted at the top of said recessed standard, and an angularly disposed weighted handle to said latch.

4. The combination with a derailer, of means for shifting the same comprising an oscillating lever, opposite standards disposed to receive said lever intermediate thereof, one of said standards being provided with a locking eye at its upper end, and an angular bifurcated latch mounted to embrace the eye of said standard.

5. The combination with a derailer, of means for shifting the same comprising an oscillating lever, opposite standards disposed to receive said lever intermediate thereof, one of said standards being provided with a locking eye at its upper end and a lateral pivoting lug therefrom, a depending latch having a recess to receive said lug, and a weighted lever carried by said latch at the outer side of the standard therefor.

6. The combination with a movable derailer, of an oscillating lever for operating the same, opposite spaced standards adapted to receive said lever, a pivoted lug at the top of the inner face of one standard, and an angular latch having a recess intermediate its ends to receive said lug and a weighted portion at the outer face of said standard.

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

MARTIN C. SLODERBECK.

Witnesses:

IRA M. McRAE,
ALVA T. FRAZEE.