

S. H. MILLER.

MEANS FOR OPERATING RAILROAD SWITCHES.

No. 536,474.

Patented Mar. 26, 1895.

Fig. 1.

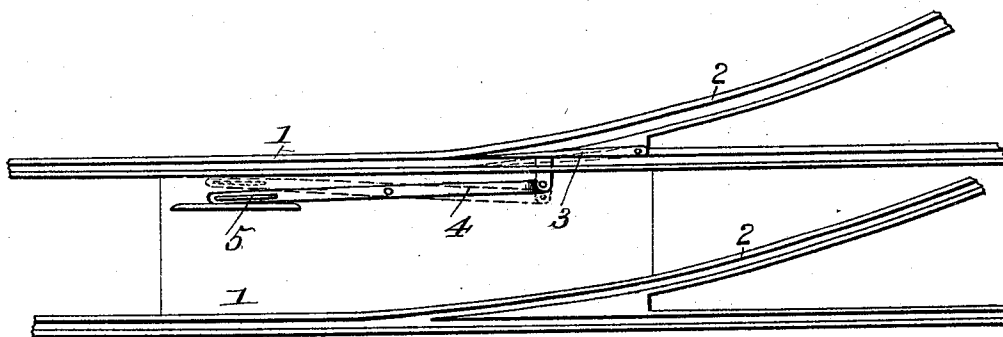


Fig. 2.

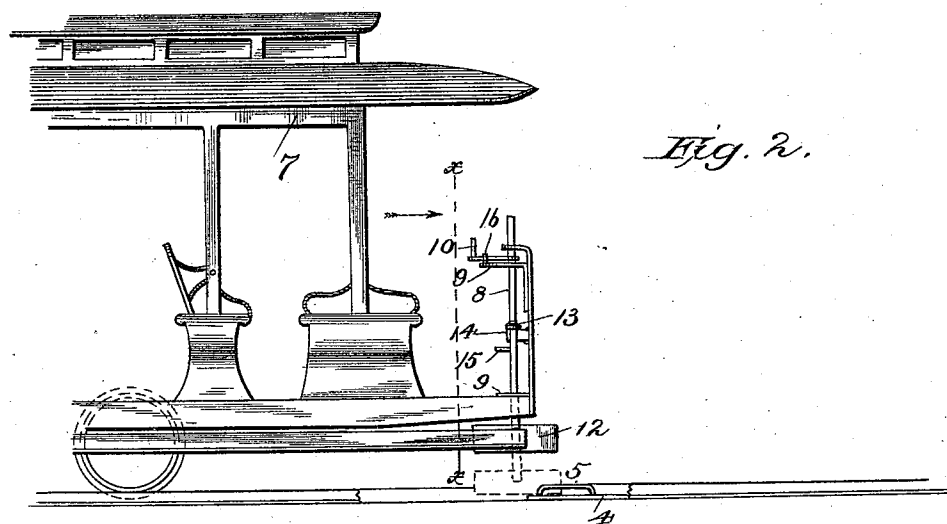
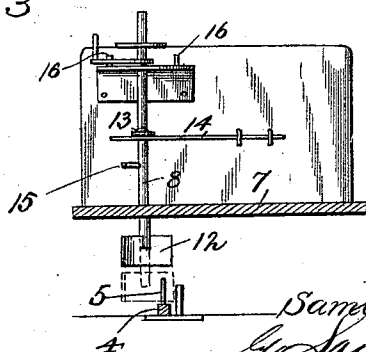


Fig. 3.



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(No Model.)

2 Sheets—Sheet 2.

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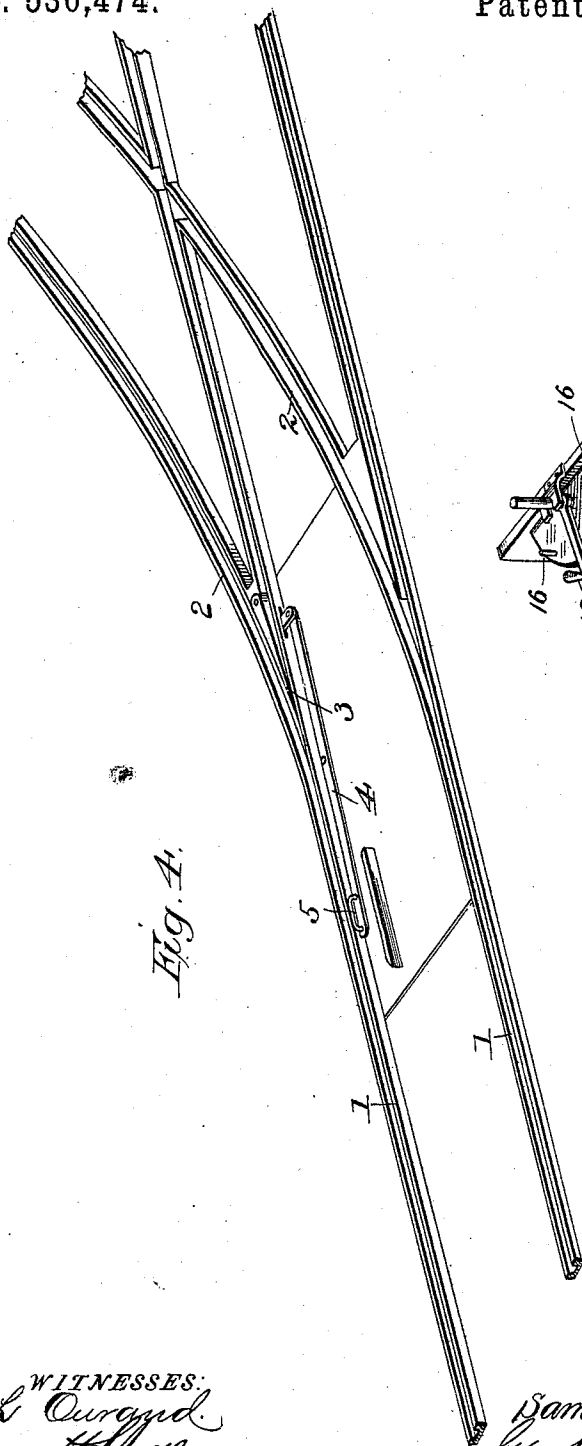


Fig. 4.

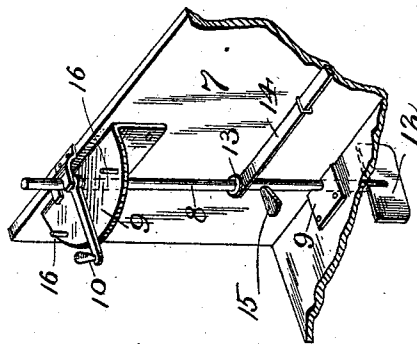


Fig. 5.

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UNITED STATES PATENT OFFICE.

SAMUEL HUFFMAN MILLER, OF CHAMPAIGN, ILLINOIS.

MEANS FOR OPERATING RAILROAD-SWITCHES.

SPECIFICATION forming part of Letters Patent No. 536,474, dated March 26, 1895.

Application filed December 15, 1894. Serial No. 531,876. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL HUFFMAN MILLER, a citizen of the United States, and a resident of Champaign, in the county of Champaign and State of Illinois, have invented certain new and useful Improvements in Means for Operating Railroad-Switches; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to switch-throwers, more especially adapted for use in connection with street railway-cars, and its object is to provide an improved construction of the same, by which a switch may be opened or closed automatically, by the movement of a car, thereby avoiding the necessity of stopping a car for such purpose.

The invention consists in the novel construction and combination of parts hereinafter fully described and claimed.

In the accompanying drawings: Figure 1 is a plan view of a portion of a railway, such as is used in connection with my invention. Fig. 2 is a side elevation, partly broken away, of a portion of a car with my improved switch-thrower. Fig. 3 is a transverse section on the line $x-x$, Fig. 2. Fig. 4 is a perspective view of my improvement. Fig. 5 is a detail view of the dash-board.

In the said drawings, the reference-numeral 1 designates the main-rails; 2, the switch-rails, and 3 a switch-tongue pivoted at one end to one of the main-rails, and at its other end beveled or cut-away to engage with a correspondingly beveled portion of one of the stationary rails. Pivotally connected with said tongue is a lever or bar 4, which is pivoted at or near its center to the tie or other portion of the bed of the track, and at its free end is provided with a projection 5, by which it is operated.

The numeral 6 designates a guide-rail.

The numeral 7 designates an ordinary street-car, provided at the front-platform with a vertically movable and rotatable shaft or rod 8, which is journaled in bearings 9, secured to the platform, and dash-board or feeder. At its upper end said rod is provided with a handle 10, and at its lower end with a blade 12, which blade is adapted to engage with the

projection 5, and open or close the switch. Intermediate its ends the rod is provided with a collar 13, with which engages the free end of a spring 14, which is secured to the dash-board of the car. The tendency of this spring is to elevate the blade up above the projection 5. Near its lower end the rod is provided with a foot-piece 15. The bearing-plate 9, secured to the dash-board, is provided with pins 16, between which the crank or handle is adapted to engage to hold the rod in any position to which it may be turned.

The operation will be readily understood.

In normal position the blade is elevated by the spring so that it will clear the projection 5, and pass by without striking the same, so that the switch will not be operated. When, however, it is desired to open the switch and switch the car on another track, the operator bears down upon the foot-piece and depresses the rod, at the same time turning the rod so that the blade will strike the projection and wedging in between the lever and guide-rail will actuate the lever and open the switch. To close the switch by a following car, after having been opened, the rod is rotated in an opposite direction, so that it will strike the projection upon the opposite side of the same, and actuate the lever in a reverse direction.

In the drawings I have shown the spring 14, which elevates the rod, as being a flat spring, but a coiled or other spring may be employed, if desired, and it may be located above or below the foot-piece, or at any other point found convenient.

Having thus fully described my invention, what I claim is—

The combination with the dash board of a car, and the bearings secured thereto, of the rotatable and vertically movable rod journaled to and working in said bearings, the handle at the upper end of said rod, the blade at the lower end thereof, the foot piece secured to said rod, the collar and the spring secured to the dash board with its free end bearing against said collar, substantially as described.

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

SAMUEL HUFFMAN MILLER.

Witnesses:

F. BASSETT,
S. WATTS.