

A. W. WILLCOX.

SAFETY-LOCKS FOR RAILROAD-SWITCHES.

No. 182,007.

Patented Sept. 5, 1876.

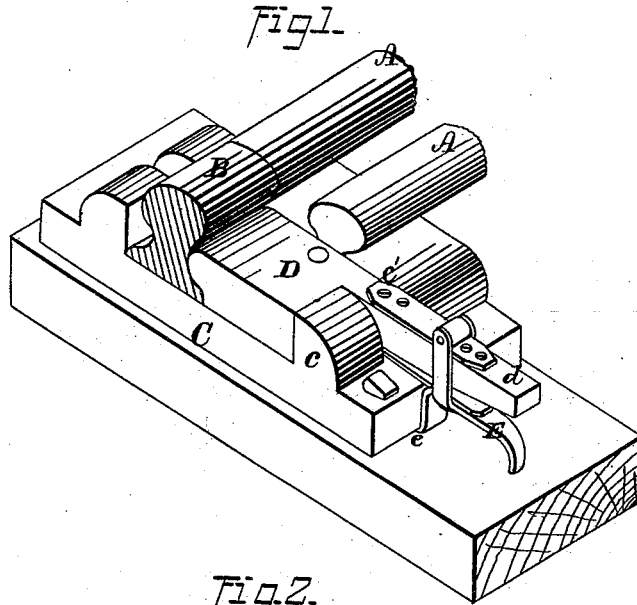
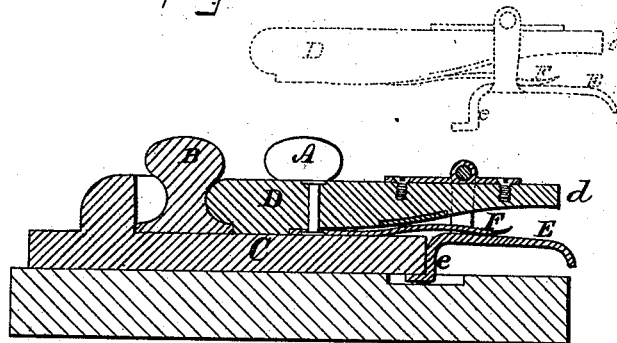


Fig 2.



WITNESSES-

Jas. E. Hutchinsonson  
H. G. Hazard

INVENTOR-

A. W. Willcox, by  
Prindle and his Attys

# UNITED STATES PATENT OFFICE.

AARON W. WILLCOX, OF PLYMOUTH, NEW YORK.

## IMPROVEMENT IN SAFETY-LOCKS FOR RAILROAD-SWITCHES.

Specification forming part of Letters Patent No. 182,007, dated September 5, 1876; application filed August 4, 1876.

*To all whom it may concern:*

Be it known that I, AARON W. WILLCOX, of Plymouth, in the county of Chenango, and in the State of New York, have invented certain new and useful Improvements in Safety-Locks for Railroad-Switches; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing, making a part of this specification, in which—

Figure 1 is a perspective view of my improved device in position for locking a switch-rail; and Fig. 2 is a vertical transverse section of the same, the dotted lines showing, in side elevation, the outlines of said locking-block detached from the switch.

Letters of like name and kind refer to like parts in each of the figures.

In the use of railroad-switches much difficulty has been experienced, and many accidents have occurred from the spreading of the switch-rails, in consequence of the stretching or breaking of the tie-rods while trains were passing over. To obviate this difficulty I have experimented with a block, which was fitted to and filled the space between the outer side of the switch-rail at its end, and the raised portion of the chair upon such side, when said rail was removed to its farthest limit, but in consequence of the jarring of the track it sometimes occurred that said block jumped out of place.

My present invention is intended to remedy the last-named difficulty; and it consists, broadly, in combining, with the outer end of the locking-block, a latch, which, by engagement with the chair, shall lock said block in place, substantially as and for the purpose hereinafter specified.

In the annexed drawing, A and A represent the fixed, and B the movable, rails of one side of a switch, which rails are contained within a chair, C, that, while holding said rails A and A in relative lateral positions, will permit the end of said rail B to move laterally, so as to enable it to coincide with each of the former. Fitted closely to the space that is left between the outer side of the rail B and the vertical portion or side *c* of

the chair C, when said rail is moved inward to its farthest limit, is a block, D, which is constructed, preferably, from wood, and when in position effectually locks said rail in place. Extending longitudinally outward from the outer end of the block D is a bar, *d*, that forms part of the same, and is contained at its inner end within a correspondingly-shaped notch, *c'*, which is provided in the chair side *c*. Pivoted upon the bar *d* is a latch or detent, E, which has the form seen in Fig. 2, and is placed upon the lower side of said bar, so that its inner end *e* may pass beneath and engage with the lower edge of the chair C, and prevent said bar from being raised. A spring, F, secured to the bar *d*, and bearing upon the upper side of the latch E, outside of its pivoted bearing, holds said latch in engagement with the chair, except when purposely released therefrom by grasping said bar with the hand and pressing upward the outer end of said latch, after which the locking-block D may be removed from place. As the inner end of the locking-block fits into the concave side of the rail B, said end cannot be displaced while the outer end of said block is fastened.

The fastening thus described is simple in construction, inexpensive, easily applied, and not liable to get out of order.

While the construction of the latch as shown is, preferably, employed, I do not limit myself to the same, as any form of latch that will accomplish the same purpose would be embraced in my invention.

Having thus fully set forth the nature and merits of my invention, what I claim as new is—

In combination with the block D, fitted to the chair C, so as to lock the rail B in position, the latch E, pivoted upon said block and arranged to engage with said chair, substantially as and for the purpose specified.

In testimony that I claim the foregoing I have hereunto set my hand this 31st day of July, 1876.

A. W. WILLCOX.

Witnesses:

H. G. PRINDLE,  
R. B. PRINDLE.