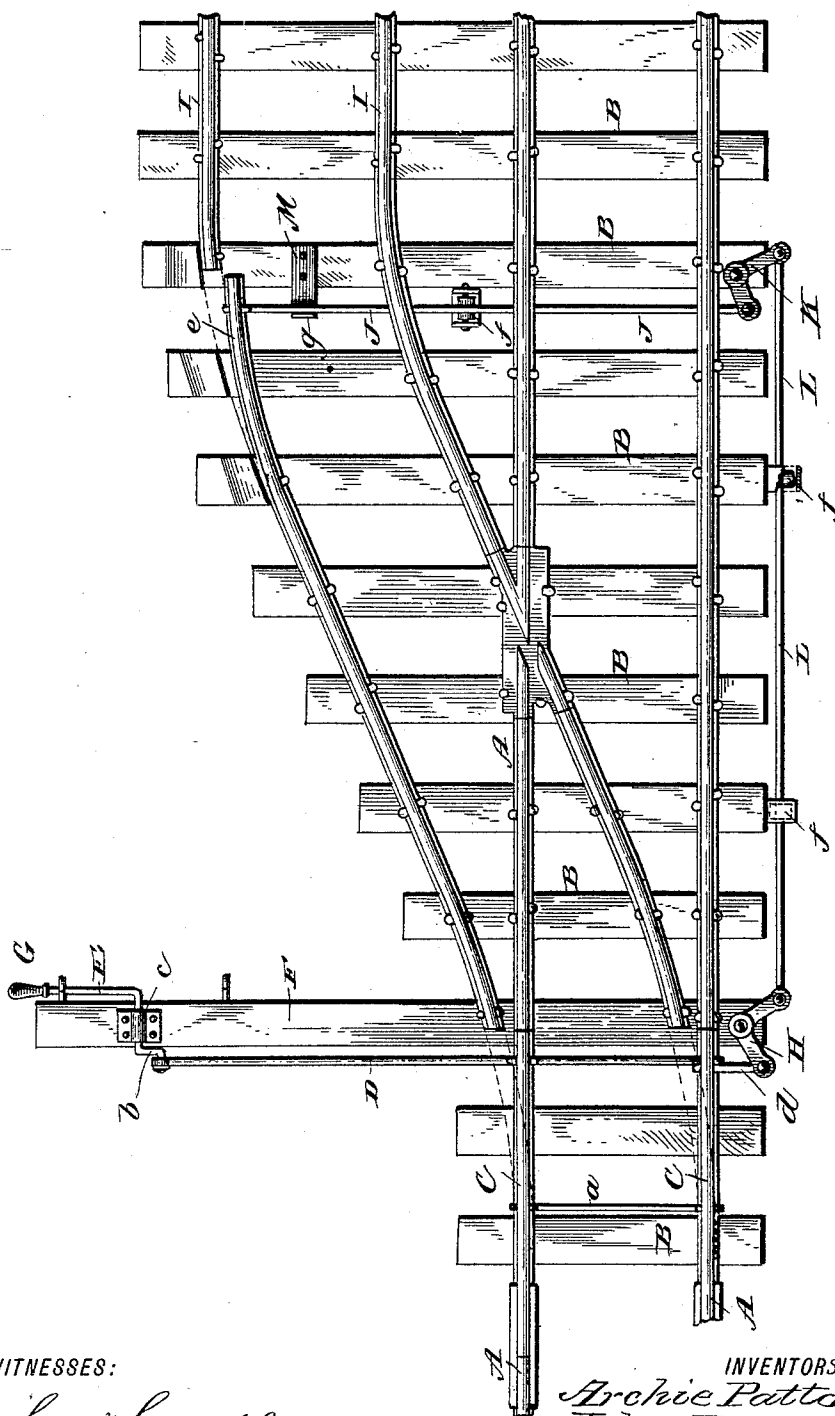


(No Model.)

A. & J. PATTON & G. A. BILLSEN.
SIDE TRACK DERAILING SWITCH.

No. 426,058.

Patented Apr. 22, 1890.



WITNESSES:

L. C. Mills.
E. A. Bond.

INVENTORS

Archie Patton.
John Patton.
George A. Billsen.
by *Chas. H. Fowler.*
ATTORNEY.

UNITED STATES PATENT OFFICE.

ARCHIE PATTON, JOHN PATTON, AND GEORGE A. BILLSEN, OF HAMBURG,
MICHIGAN.

SIDE-TRACK DERAILING-SWITCH.

SPECIFICATION forming part of Letters Patent No. 426,058, dated April 22, 1890.

Application filed December 30, 1889. Serial No. 335,383. (No model.)

To all whom it may concern:

Be it known that we, ARCHIE PATTON, JOHN PATTON, and GEORGE A. BILLSEN, citizens of the United States, residing at Hamburg, in the county of Livingston and State of Michigan, have invented certain new and useful Improvements in Side - Track Derailing-Switches; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters of reference marked thereon.

This invention relates to certain new and useful improvements in railway-switches; and it has for its object, among others, to provide an improved switch which, in addition to throwing the main line into or out of connection with a siding, breaks the track of the siding and prevents cars which may be standing on the siding from running onto the main line.

It often happens that cars are left upon the side track without setting the brakes and the cars get set in motion, especially when the track of the siding is on a downgrade, and the cars run onto the main line and occasion a wreck or collision. It is the object of the present invention to prevent such accidents.

The invention consists in providing a connection between the operating-lever and one of the rails of the siding, so that as the switch is actuated to throw the main line out of connection with the siding one of the rails of the siding is broken, and as the switch is operated to throw the main line in connection with the siding the broken rail of the side track is thrown into line with its adjacent rail and an unbroken side track secured.

The invention also consists in certain novel features of construction and the combinations, arrangement, and adaptation of parts, all as more fully hereinafter described, shown in the drawings, and then particularly pointed out in the appended claim.

The invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this specification, and in which is shown a plan view of the parts constituting our invention.

In the said drawings, A designates the main

line or track, supported on the ties B in the usual manner, except as hereinafter specified.

C are the movable parts of the main track, connected by the bar or rod *a* and by means of the switch-bar D, said switch-bar being connected at one end to the crank-arm *b* of the switch-lever E, journaled in suitable bearing *c* on the extended tie F, and provided with a suitable handle G, adapted to be locked in either of its two positions in any well-known manner. This bar is so connected to the ends of the movable rails that as the lever is turned the rails are moved from one position to the other. In the drawings the movable rails are shown in full lines in the position they occupy when the main line or track is unbroken and in dotted lines in the position they assume when the lever is turned to throw the cars on the side track.

H is a bell-crank lever, pivoted at its elbow to the end of one of the cross-ties and connected to the end of the switch-bar D by means of a link or pitman *d*.

I is the siding or side track, one end of the outer rail of which is movable, as shown at *e*, the said movable portion forming, when the parts are in the position shown by dotted lines, a continuation of the adjacent outer rail and forming an unbroken track. This end of the movable portion of the outer rail of the siding is connected with one end of the bar J, the outer end of which is pivotally connected with the end of one arm of the bell-crank lever K, pivoted at its elbow to the end of one of the cross-ties, the other end or arm of said lever being connected by means of the rod or bar L, running parallel with the track and connected at its other end with the bell-crank lever H, as shown. The bars J and L run over anti-friction rollers *f*, mounted in suitable supports, as shown.

M is a guide-arm attached to one of the cross-ties and having an upturned portion *g*, which serves as a guide for the bar J, as will be readily understood.

The operation is simple and apparent. With the parts in the position in which they are shown in full lines in the drawings the main line is unbroken; but the manipulation of the switch-lever to throw the movable rails of the main line into such position has thrown the

movable rail of the siding into the position shown in full lines, so as to break the outer rail of the siding. Now, if a car or cars should become lost or detached or otherwise set in motion on the side track, instead of running onto the main line and endangering the trains coming on the said main track, they would be derailed before they would reach the main line. The throwing of the switch-lever to break the main line to throw the cars onto the side track throws the movable rail of the siding into the position shown by dotted lines and makes a continuous side track.

What we claim as new is—

15 The combination, with the main track, its movable rails, the siding, and its movable rail, of the switch-lever, a bar connecting the lever with the movable rails of the main line,

a bar parallel with the first-mentioned bar and connected at one end with the movable rail of the siding, bell-crank levers connected with the said bars, and a rod connecting the bell-crank levers and the arm M on one of the cross-ties and having an upturned portion to guide the second-mentioned bar, substantially as and for the purpose specified. 25

In testimony that we claim the above we have hereunto subscribed our names in the presence of two witnesses.

ARCHIE PATTON.
JOHN PATTON.
GEORGE A. BILLEN.

Witnesses:

KITTIE LEMON,
J. F. LEMON.