

(No Model.)

F. W. ROSS.
AUTOMATIC SWITCH.

No. 606,392.

Patented June 28, 1898.

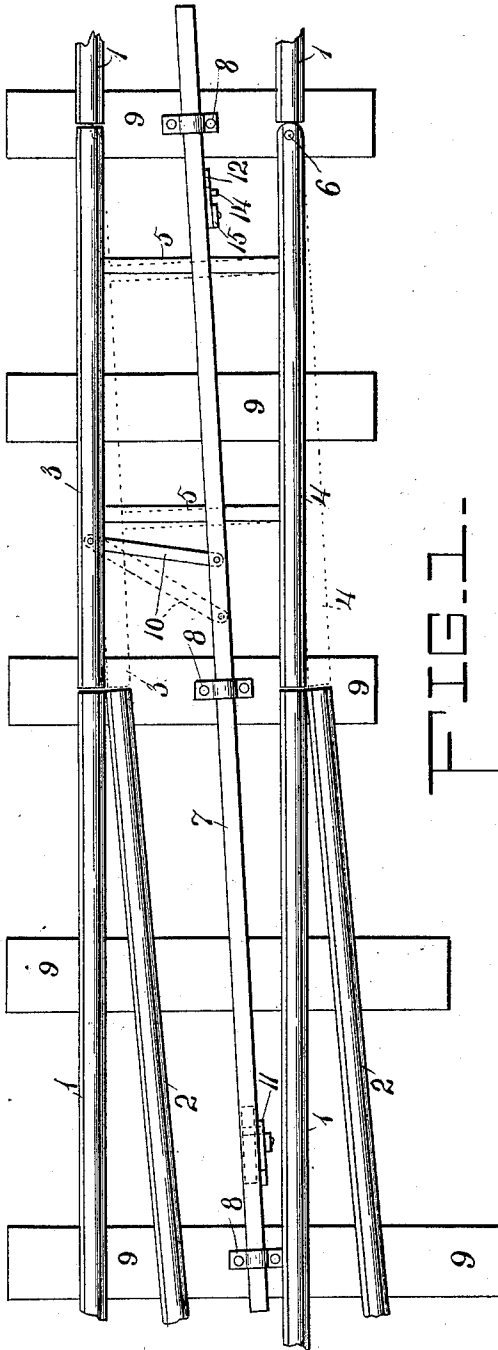


FIG. 1.

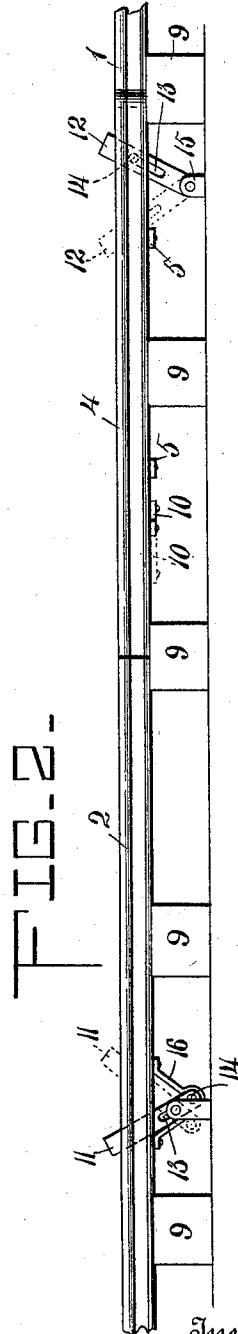


FIG. 2.

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AUTOMATIC SWITCH.

SPECIFICATION forming part of Letters Patent No. 606,392, dated June 28, 1898.

Application filed July 31, 1897. Serial No. 646,669. (No model.)

To all whom it may concern:

Be it known that I, FINLAY W. ROSS, of Birtle, in the Province of Manitoba and Dominion of Canada, have invented certain new and useful Improvements in Automatic Switches; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The invention relates to a tramway-switch in which the switch for transferring the cars from the main line to the side track, and vice versa, is operated automatically by the movement or passage of the car over the same.

It consists in the combination, with the main and side track rails, of a movable section in which the rails are connected to move upon a single pivot and connected with a sliding rod or rail interposed between the rails of said sections and connected with upright levers adapted to be operated by the movement or passage of the car over them, as hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a plan view of a tramway-switch, showing in full lines the switch in its proper relation to the rails of the main line and in dotted lines its position relative to the side-track rails.

Fig. 2 represents the same in side elevation, showing the arrangement of the upright levers for operating the switch-section, in full lines to correspond with the full lines of Fig. 1 and in dotted lines to correspond with the dotted lines of said Fig. 1.

1 1 indicate the fixed rails of the main track, and 2 2 the rails of the side track rigidly secured to the ties or other rail-supports in any usual or preferred manner.

3 and 4 indicate the rails of the movable section, said rails being rigidly connected by transverse bars 5 in such manner that any lateral movement of one of said rails will be imparted to the other. The rail 4 is pivoted at one end, as indicated at 6, so that any movement of the rails of said movable section will be upon said pivot as the center of movement.

7 indicates a longitudinally-arranged rod or bar interposed between the rails 3 and 4 of the movable section and moved in loop-guides 8, secured to the cross-ties 9.

10 indicates a link pivotally connected at

one end with the rod 7 and at its opposite end with the rail 3 in such manner that any longitudinal movement of the rod 7 imparts a lateral vibration to the movable section of the rails.

11 and 12 indicate upright levers slotted at 13 to engage laterally-projecting pins 14 on the sides of the bar 7. These levers are pivoted—the lever 12 at its lower end to an upright 15, secured to the bed of the track, the lever 12, if desired, passing up through a slot therein. The lever 11 is pivoted centrally of its length and has its lower end connected with the pivot on the bar 7 through a pendent lug or ear 16 thereon, as indicated in Fig. 2, the arrangement of the levers 11 and 12 being such that as one lever is vibrated in one direction for moving the rod 7 longitudinally the opposing lever will be moved in the opposite direction.

The car moving over a road constructed as described will be provided with a pendent hook or lever under control of the motorman by means of which he is enabled to engage the projecting ends of the levers for operating the movable section of rails. Supposing the car to be moving to the left on the main track, as indicated in the drawings, and it is desired to switch the car from the said main track to the siding, (indicated at 2 2,) by throwing the lever or hook down into engagement with the lever 12 the rail-sections 3 4 will be vibrated from a position in alinement with the rails 1 1 to one in alinement with the rails 2 2 of the side track, thereby switching the car from the main line to the side track or line. As the car moves onward on said track it comes in contact with the lever 11, and, vibrating the latter, which has been thrown forward by the action of the bar 7, and acting thereon, vibrates the movable section back again into alinement with the rails 1 1 of the main track. Supposing the car to be coming from the opposite direction from the side track, the hook or lever on the car under the control of the driver or motorman first comes in contact with the upright lever 11 and acting upon the rod 7 swings the movable section of the rail into alinement with the rails 2 2 of the side track, thereby adapting the car to be transferred from the side track to the main line or track. This operation brings

the lever 12 again into position to be operated by the car in passing, and as the rod or bar 7 is moved by the lever 12 the movable section is again brought into alinement with the rails of the main track.

By the arrangement described a very simple and effective switch arrangement is provided and one which is rendered automatic in its action by the proper adjustment of the pendent lever or hook under control of the motor-man.

Having thus described the invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a tramway-switch, the combination with the main and side track rails, of a movable section of track, the two rails of which are rigidly connected to move on a single pivot, an interposed longitudinally-sliding rod connected to said section, and levers con-

nected to said rod to be acted upon by the moving car for operating it and said pivoted section, substantially as described.

2. In a tramway-switch, the track-rails thereof having a movable section in which the two rails are rigidly connected to move on a pivot at one end of one rail of said section, in combination with a sliding rod intermediate the rails of said section and linked thereto, and upright levers adapted to be operated by the passing car for opening and closing the switch, substantially as described.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

FINLAY W. ROSS.

Witnesses:

ROBT. J. GOURLEY,
GEO. MUNDELL.