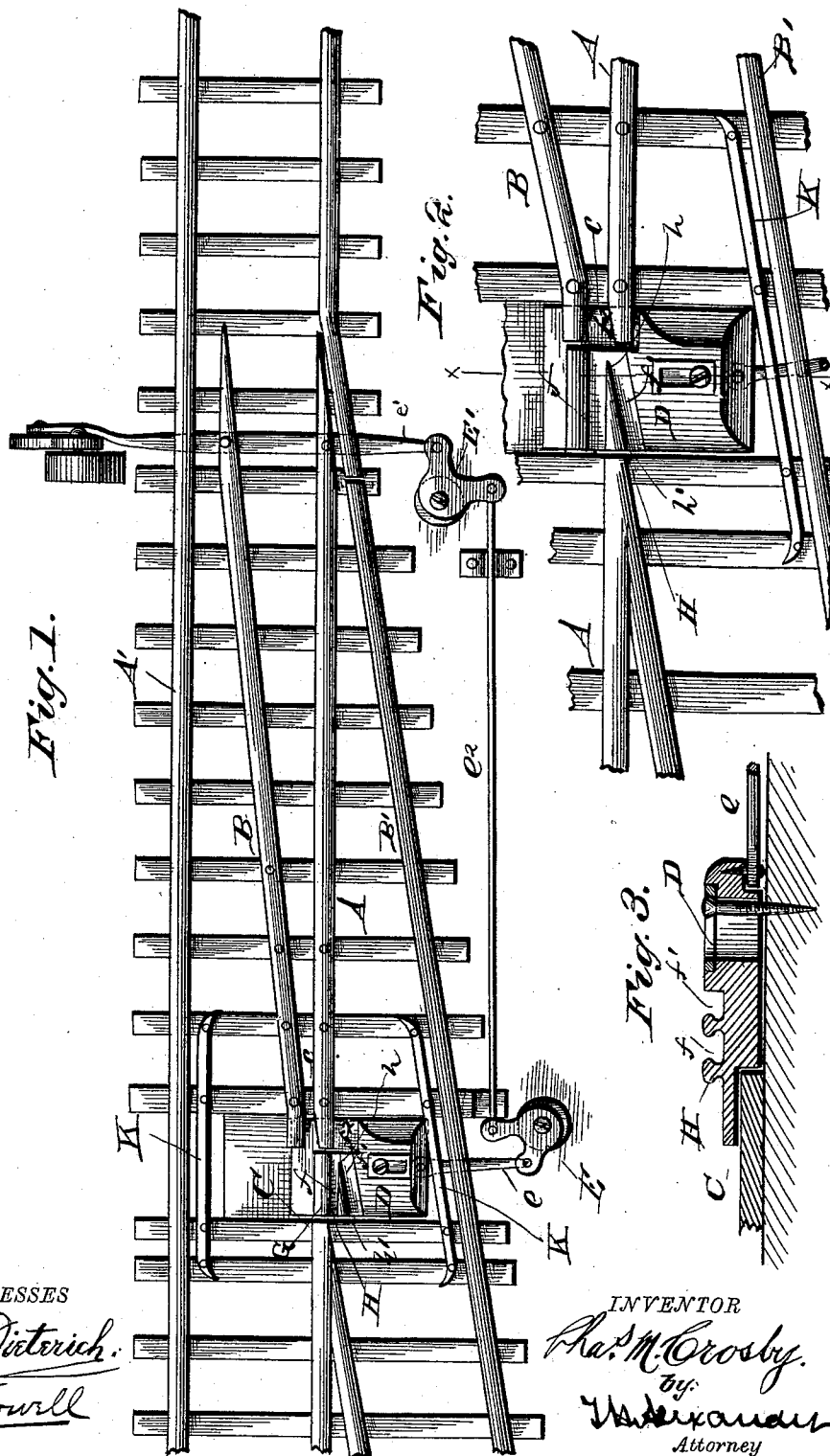


(No Model.)

C. M. CROSBY.  
RAILROAD SWITCH.

No. 349,250.

Patented Sept. 14, 1886.



WITNESSES  
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# UNITED STATES PATENT OFFICE.

CHARLES M. CROSBY, OF HILLSBOROUGH, OHIO.

## RAILROAD-SWITCH.

SPECIFICATION forming part of Letters Patent No. 349,250, dated September 14, 1886.

Application filed January 12, 1886. Renewed August 23, 1886. Serial No. 211,647. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES M. CROSBY, of Hillsborough, in the county of Highland and State of Ohio, have invented certain new and useful Improvements in Railroad-Switches; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form part of this specification, in which—

Figure 1 is a plan view of a section of railroad-track having my improved switch applied, showing the main track open. Fig. 2 is a similar view of a portion of the track, showing the siding open. Fig. 3 is a detail sectional view of the switch-block.

The invention relates to improvements in that class of railway-switches in which a sliding frog forms part; and its object is to provide such a switch of simple construction, of efficient action, in which the main line and siding may be both closed, and in which, when so closed, the wheels of a car passing from the siding to the main line will not have to ride over the frog.

The invention consists in the construction and novel arrangement of parts hereinafter described, and pointed out in the appended claims.

Referring to the accompanying drawings, A A' represent, respectively, the inner and outer rails of the main line, and B B' the inner and outer rails of the siding. Where the lines of rails A B cross each other the rails are cut away, so as to make a space, C, of suitable length. The ends of the rails A B on the side of said space toward the switch-lever are not in contact, but have between them the space c, wide enough for the flange of a wheel to pass, as shown.

D is a bed-plate arranged to slide transversely with relation to the main track in ways secured to the ties or in recesses formed therein. The bed-plate is just wide enough to fit in and slide easily through the space C in the rails A B.

e is a switch-rod, which connects the bed-plate with one arm of the crank-lever E. The other arm of said lever is connected with a similar crank-arm, E', by the rod e<sup>2</sup>, and the switch-rod e' connects the other arm of E' with the switch-rails and switch-stand.

In the upper surface of the bed-plate are made the grooves f and f', the former parallel to the main track, and the latter parallel to the siding.

The upstanding part G of the bed-plate is formed similar in size and shape to the section of the rail A.

Between the grooves which run into each other at their ends f<sup>2</sup> on the side on which the main track and side track approximate, the upstanding portion H of the bed-plate is necessarily V-shaped, one side being parallel with the main line and one with the siding. The point h of said portion lies toward the side on which the tracks approximate, and the base h' on the other side is just wide enough to have one side coinciding with the inner side of the rail A and have one side coinciding with the inner side of the rail B when the bed-plate is in the position shown in Fig. 1. When the bed-plate is slid in, as shown in Fig. 1, the part G will coincide with the rail A, setting the frog to the main track and closing the siding, so that a train cannot pass therefrom. When the bed-plate is slid into the position shown in Fig. 2, the part G is inward from the rail A and the part H lies in the space C, so that both lines are open and a train can pass either way on the main track and from the siding onto the same. If desired, the grooves might be dispensed with and the parts G and H might rise directly from the bed-plate; but the grooves are preferable, as they act as guard-rails to the flanges at the break in the line.

Any other form of switch-lever or device to move the bed-plate may be used.

K K are guard-rails respectively upon the main track and siding, to prevent derailment at the point C.

It is evident that the invention can be used either with the class of split switches or with the class of stub-switches.

The rod e' is connected to the rails A B near their ends adjacent to the switch-lever, the ends of the said rails near the siding bed-plate being secured to several ties, so that as the switch-lever and rods e' e<sup>2</sup> are moved the rails A B close the main track and open the siding or the reverse simultaneously with the opening and closing of said tracks by the sliding bed-plate.

I am aware that switches have been made with a sliding frog forming part thereof, and such I do not claim, broadly; but,

Having described my invention, I claim—

5 1. In a railway-switch, the combination of the inner lines of rails of the main track and siding cut away at their point of intersection, so as to form a space of desirable length, a bed-plate arranged to slide within said space,  
10 and provided with a straight transverse projection corresponding to a section of rail, and a triangular transverse projection having one side parallel to the siding, and mechanism, substantially as specified, to actuate the said  
15 bed-plate.

2. The combination of the main track, the siding, the movable rails A B, the bed-plate arranged to slide in the space C, and provided with the projections G and H, and switch mechanism, substantially as described, whereby the  
20 rails A B are simultaneously moved with the

bed-plate, so as to open or close either the main track or siding, substantially as specified.

3. The combination of the main track, composed of the rails A A', the siding, composed 25 of the rails B B', the bed-plate D, arranged to slide in the space C of the rails A B, and provided with the transverse projections G and H, and the switch mechanism, substantially as described. 30

4. The combination of the main track, the siding, the bed-plate D, having the grooves f f', and the switch mechanism, constructed and arranged substantially as and for the purpose specified. 35

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

CHARLES M. CROSBY.

Witnesses:

ADOLPHUS KOCH,  
D. P. JOHNSON.