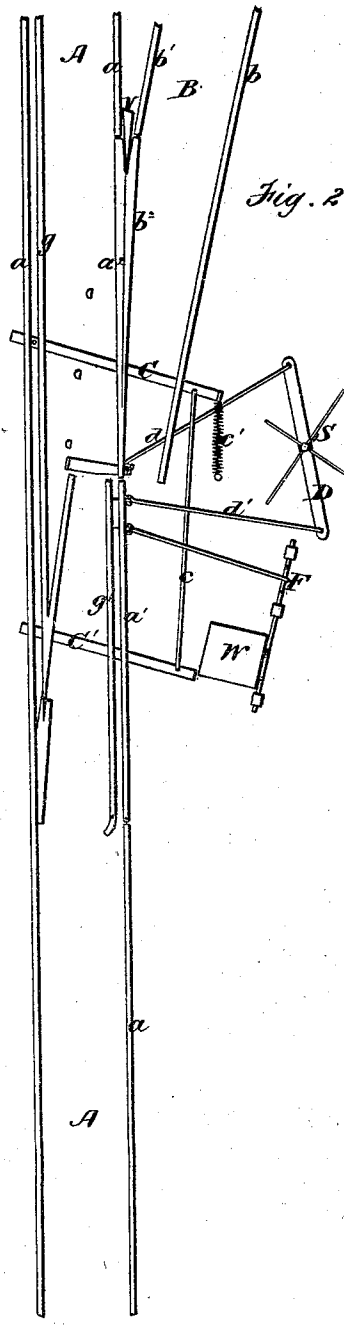
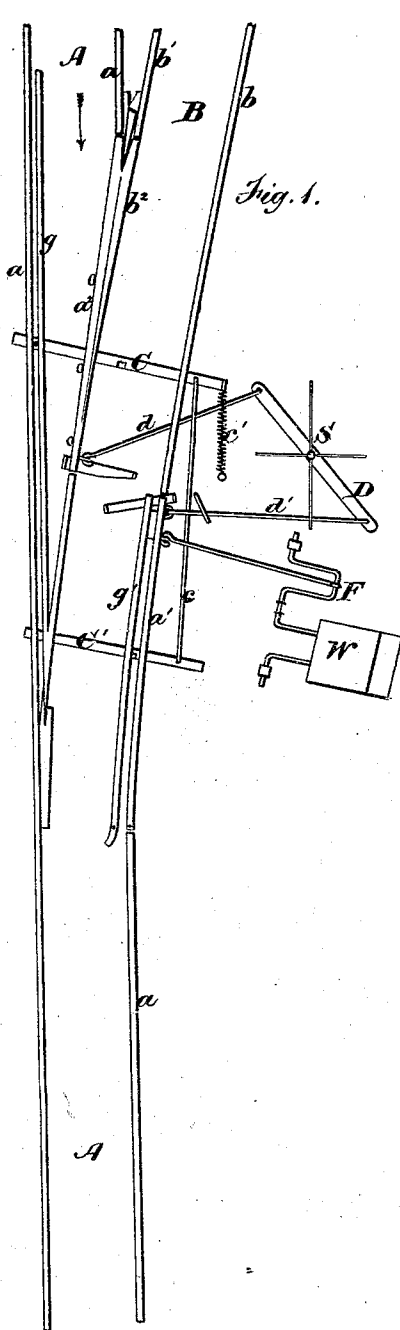


C. C. SHELBY.
Railway-Switches.

No. 147,695.

Patented Feb. 17, 1874.



WITNESSES

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By

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UNITED STATES PATENT OFFICE.

CHRISTOPHER C. SHELBY, OF SPRING VALLEY, NEW YORK.

IMPROVEMENT IN RAILWAY-SWITCHES.

Specification forming part of Letters Patent No. 147,695, dated February 17, 1874; application filed December 12, 1873.

CASE B.

To all whom it may concern:

Be it known that I, CHRISTOPHER C. SHELBY, of Spring Valley, in the county of Rockland and State of New York, have invented a new and Improved Railroad-Switch; and I do hereby declare the following to be a full and exact description of the same, reference being had to the accompanying drawing forming part of this specification, in which—

Figure 1 is a plan, showing the switch open; and Fig. 2 is a plan, showing the switch closed.

Similar letters of reference in the accompanying drawings denote the same parts.

The object of this invention is to improve the construction and operation of railroad-switches; and to this end the invention consists, first, in the novel combination of rails, weight, and lever, herein shown and described; secondly, in the combination of a spring-lock with said rails; thirdly, in a novel device for strengthening the joint of the short movable rail at the junction of the proximate rails of the main and the side track.

In the drawings, A is the main track, consisting of the fixed rails *a*, fixed guide-rail *g*, movable guide-rail *g'*, movable rail *a'*, and movable rail *a''*; and B is the side track, consisting of the fixed rails *b* *b'* and movable segment *b''*, which segment is united to the rail *a''*, as shown. C C' are two transverse lock-bars extending across the road under the rails, connected together by a stiff rod, *c*, and held firmly in position by a spiral or other suitable spring, *c'*, the bar C having a notch which engages with a pin or lug on the under side of the rail *a''* *b''* to hold them in the position shown in Fig. 2, and the bar C' having a similar notch, which, in like manner, engages with a pin or lug on the under side of the rail *a'* or guide-rail *g'* to hold the two last-mentioned movable rails in the position represented in Fig. 2. D is a lever pivoted on a central fulcrum, and having one end connected, by a rod, *d*, to the swinging rail *a''* *b''*, while the other end is connected, by a rod, *d'*, to the swinging double rail *a'* *g'*, so that the moving of one of the pivoted rails to open or close the switch will cause the other pivoted rail to move in an opposite direction to an equal extent. W is a heavy weight, supported on a bent rod or crank-shaft, F, for the

purpose of holding the switch properly in position when open, the lock-bars holding it securely when closed. S is a signal-staff, supported by and turning with the lever D, and provided with any suitable devices to indicate the condition of the track; and V is a wedge-shaped block inserted between the ends of the rails *a* *b'* into the angular recess between the ends of the movable rail *a''* *b''*, and capable of swinging with said rail *a''* *b''*, its object being to strengthen the joint and hold all the rails in place, and also to enlarge the bearing-surface or tread of the rails *a* *b* at that end, and to make the passage of the cars over the joint smoother and safer.

When the switch is open a train of cars coming along the main track in the direction of the arrow, Fig. 1, will close the switch and open the main track automatically, leaving the switch closed and locked.

In order, now, to open the switch it will be necessary to swing the lock-bars C C' back, so as to disengage the lugs or pins from their notches, and then move the switch by hand, or the weight W may be so hung that it will move rails and open the switch automatically whenever said lock-bars are disengaged from said pins or lugs.

I claim as my invention—

1. The combination of the rails *a''* *b''* *a'* *g'*, rods *d* *d'*, and lever D with the main and side tracks, substantially as described, for the purpose specified.

2. The lock-bars C C', connected by a rod, *c*, and actuated by a spring, *c'*, when combined with the swinging rails, substantially as described, for the purpose set forth.

3. The weight, crank-shaft, and connecting-rod, combined with the movable rails and lock-bars, substantially as described, for the purpose specified.

4. The wedge-shaped movable block V, combined with the rails *a* *b'* and the swinging rail *a''* *b''*, substantially as and for the purposes described.

CHRISTOPHER C. SHELBY.

Witnesses:

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