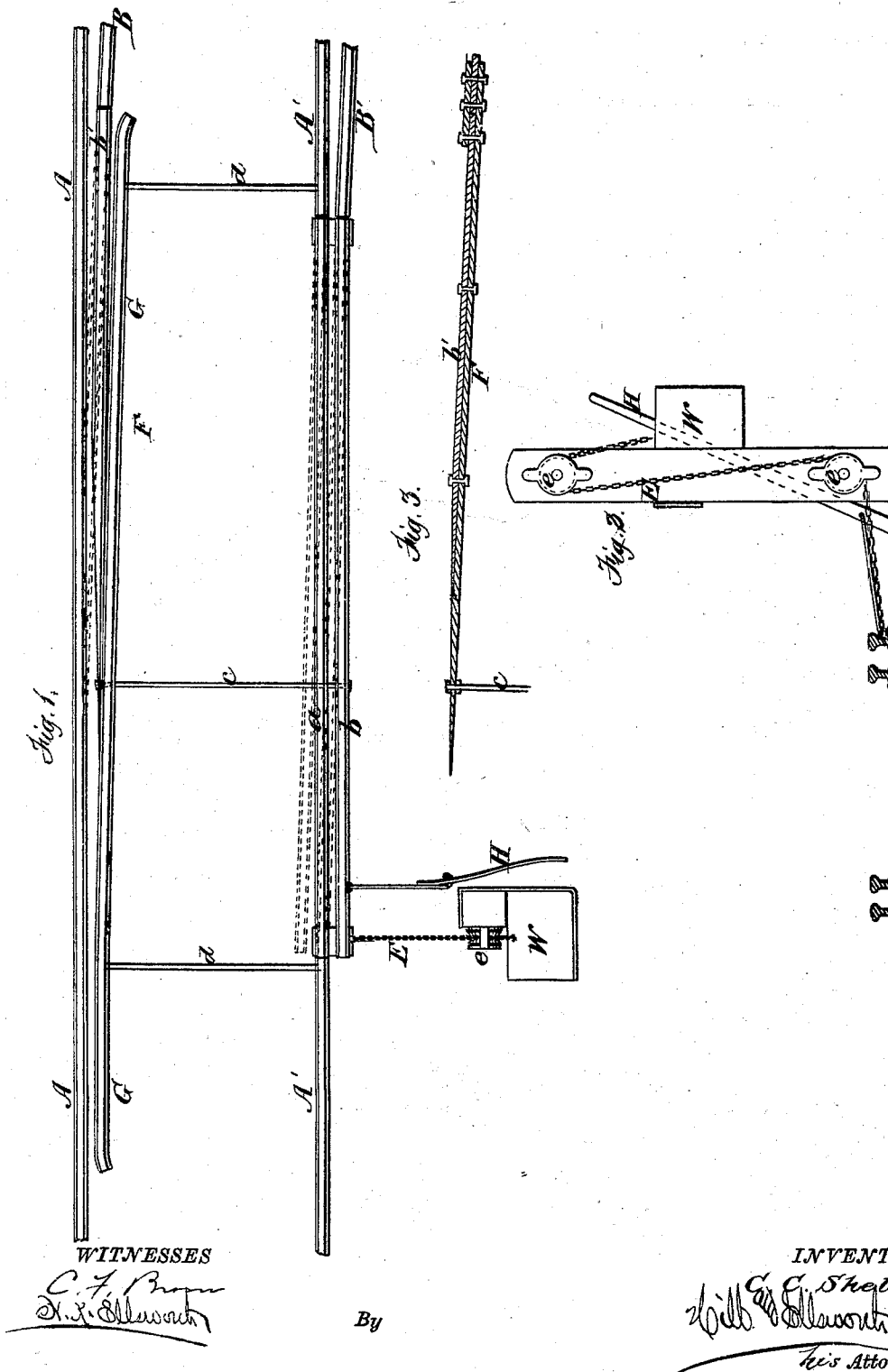


C. C. SHELBY.
Railway-Switches.

No. 147,696.

Patented Feb. 17, 1874.



UNITED STATES PATENT OFFICE.

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

IMPROVEMENT IN RAILWAY-SWITCHES.

Specification forming part of Letters Patent No. **147,696**, dated February 17, 1874; application filed December 12, 1873.

CASE A.

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 top-plan view. Fig. 2 is a cross-section with an elevation of the switch-standard, and Fig. 3 is a horizontal section of the short movable rail.

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

This invention relates to that class of switches in which the switch is automatically opened by the train coming from the side track; and the invention consists, first, in the improved means for safely accomplishing automatically the opening of the switch to let the train pass onto the main track, and the closing of the switch again behind the train, to leave the main track clear; and, secondly, in an improved construction of the short movable switch-rail, which operates between the main rail and the fixed guide-rail.

In the drawings, A A' is the main track, having a movable switch-rail, *a*. G is the fixed guide-rail; B B', the side track, having a movable switch-rail, *b*, which is a companion to the switch-rail *a* of the main track, and also having a short tapering movable switch-rail, *b'*, which operates between the main rail A and the guide-rail G, fitting against either with equal nicety. The guide-rail G and main rail A' are mutually braced by interposed struts *d d*, and the double rail *a b* and short rail *b'* are connected by one or more strong ties, *e*, so that any force operating to move one side of the switch-track will also move the other. E

is a cord or chain, attached to the double rail *a b*, passing over pulleys *e e*, and supporting a heavy weight, W. H is a hand-lever, to be used for opening the switch when the train is to pass from the main track to the side track; and F is a long fish-plate, which, affixed to the rail B, extends across the joint to the rail *b'*, and along the entire length of the latter, and projecting to some extent beyond its narrow end, which protects the point of the bar *b'* from breakage, the object of this fish-plate being to support and strengthen the tapered end of the small rail, and to render it equally as strong as any other rail. This fish-plate may be used on one or both sides of the small rail, and may be attached thereto in any suitable manner.

The operation of this improved switch is so simple as hardly to require any further description. The right-hand wheels of the train coming from the side track run between the fixed guide G and movable rail *b'*, and open the switch until the train passes onto the main track, when the weight W closes the switch, leaving everything as before.

Having thus described my invention, what I claim as new is—

1. The switch herein described, consisting essentially of the double rail *a b*, guide-rail G, short rail *b'*, cord E, and weight W, in combination with the main and side tracks, substantially as described.

2. The strengthening-piece F, combined with the short tapering switch-rail *b*, and extending beyond the latter, substantially as and for the purpose set forth.

CHRISTOPHER C. SHELBY.

Witnesses:

MELVILLE CHURCH,
N. K. ELLSWORTH.