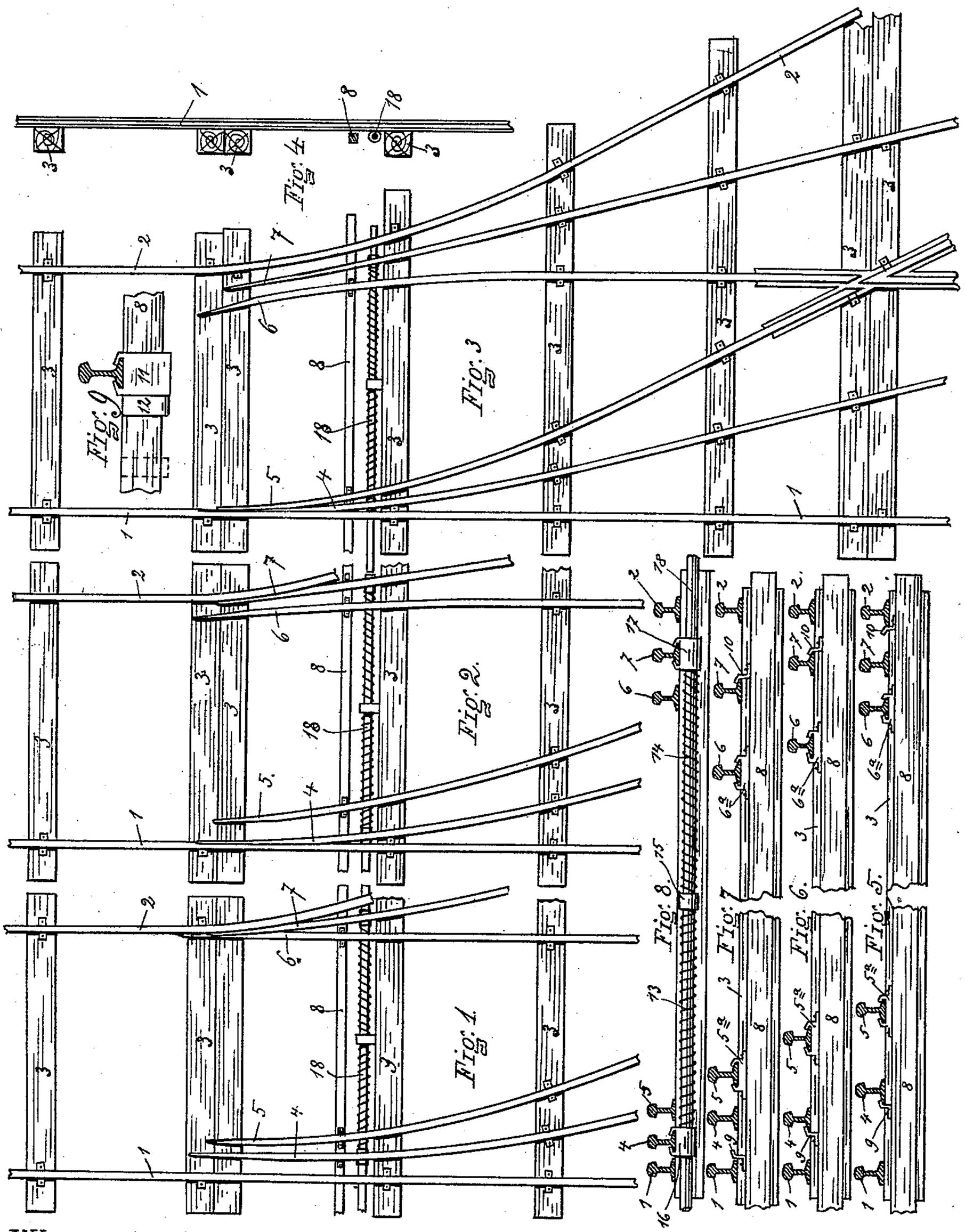
(No Model.)

J. D. BAILEY.

THREE WAY RAILWAY SWITCH.

No. 536,715. Patented Apr. 2, 1895.



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JAMES D. BAILEY, OF UTICA, NEW YORK, ASSIGNOR OF ONE-HALF TO SETH C. ADAMS, OF SAME PLACE.

THREE-WAY RAILWAY-SWITCH.

SPECIFICATION forming part of Letters Patent No. 536,715, dated April 2, 1895.

Application filed February 18, 1895. Serial No. 538,762. (No model.)

To all whom it may concern:

Be it known that I, JAMES D. BAILEY, of Utica, in the county of Oneida and State of New York, have invented certain new and useful Improvements in Three-Way Railway-Switches; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the numerals of reference marked thereon, which form part of this specification.

My present invention relates to improvements in threeway split switches.

In the drawings which accompany and form a part of this specification and in which similar numerals of reference refer to corresponding parts in the several views, Figure 1 shows a plan view of the switch "closed." Fig. 2 shows the switch in the first "shift." Fig. 3 shows the switch in the position of the second "shift." Fig. 4 is a side view. Fig. 5 shows a cross section taken at the side of the shifting-bar with the rails corresponding in position to Fig. 1. Fig. 6 shows a similar section corresponding to Fig. 2. Fig. 7 shows a similar section corresponding to Fig. 3. Fig. 8 shows a cross section including the springs. Fig. 9 shows a modified form of construction.

Referring to the reference figures in a more particular description, 1 and 2 indicate stationary rails secured to ties as 3 in the usual manner, and which rails diverge at the switch substantially as shown. Between the stationary rails at the point of divergence are located the four movable pointed split rails 4, 5, 6 and 7. The points of the rails 5 and 7 lie back of the points of rails 4 and 6. The rails 5 and 6 are secured to the shifting-bar 8 by clamps 5^a and 6^a respectively, so as not to be movable in either direction along the bar. The rails 4 and 7 are independent of the shifting-bar to move in one direction, but are moved with the shifting-bar in the other direction. This movement, so far as rail 4 is concerned, is caused by the hooked shoulder projection 9, and as to rail 7, by a similar projection 10 from the shifting-bar.

Instead of the projections 9 and 10, a sleeve-block 11 having fingers for engaging the rail, may be provided, which block will slide freely in one direction on the shifting-bar and be operated on the other by a fixed collar or shoulder piece 12.

For operating the switch rails 4 and 7 in the opposite direction from that to which the shifting-bar is adapted to operate them, there are provided springs 13 and 14. These springs operate from a fixed support 15 against the sliding chairs 16 and 17, respectively, which are secured to the rails 4 and 7. The springs are mounted on a rod 18 which holds them in operative position, and which passes loosely through the bottom of the chairs 16 and 17.

The spring base or support 15 may be dispensed with and a single spring extending from rail 4 to rail 7 employed, if desired.

To either end of the shifting-bar 8 is attached any form of switch target devices, which are so arranged as to provide for three shifts.

The operation of the switch is too obvious to require particular description. It may be noted, however, that when the switch is adjusted to the position shown in Fig. 1, which is the normally closed position, all the rails are held positively and the switch cannot be maliciously displaced without breaking the mechanism. In this position none of the rails are held only by springs, so that by the use of a bar they could be sprung and blocked in dangerous position.

What I claim as new, and desire to secure by Letters Patent, is—

1. The combination in a three way switch, of two diverging fixed rails, four intermediate pointed rails, a shifting bar to which the two middle movable rails are immovably secured, and having shoulders engaging from the outer sides only, the two outer movable rails and

springs acting against the outer movable rails from the inner sides, substantially as set forth.

2. The combination in a switch of two diverging rails, intermediate movable split rails 4, 5, 6 and 7, a shifting-bar to which rails 5 and 6 are fastened, and having means for engaging and moving rails 4 and 7 from the outer sides only, and a spring operating against the inner sides of rails 4 and 7, substantially as set forth.

In witness whereof I have affixed my signature in presence of two witnesses.

JAMES D. BAILEY.

Witnesses:
GEORGE C. CARTER,
W. B. WILLIAMS.