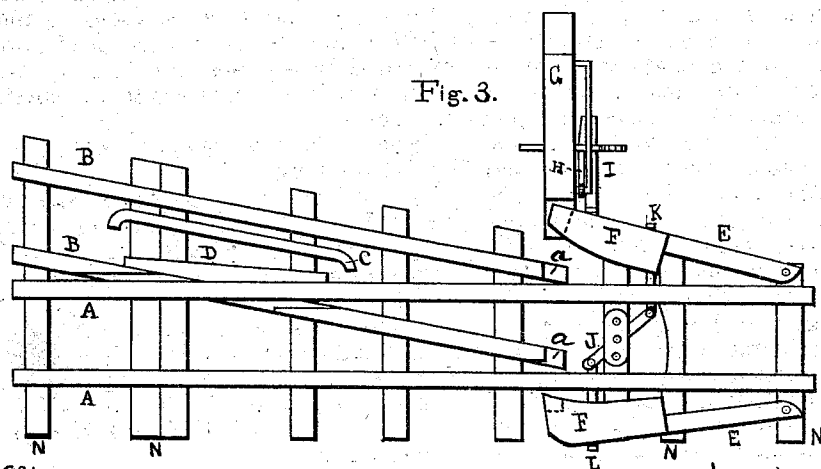
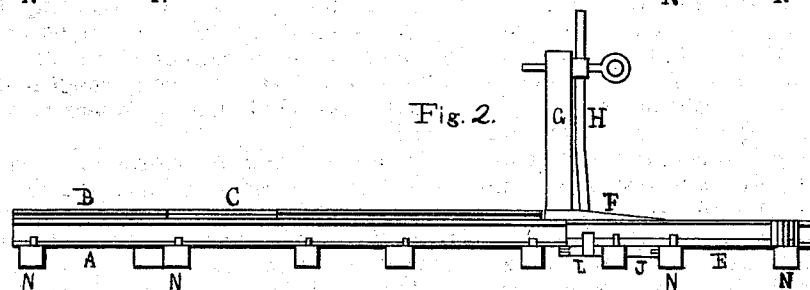
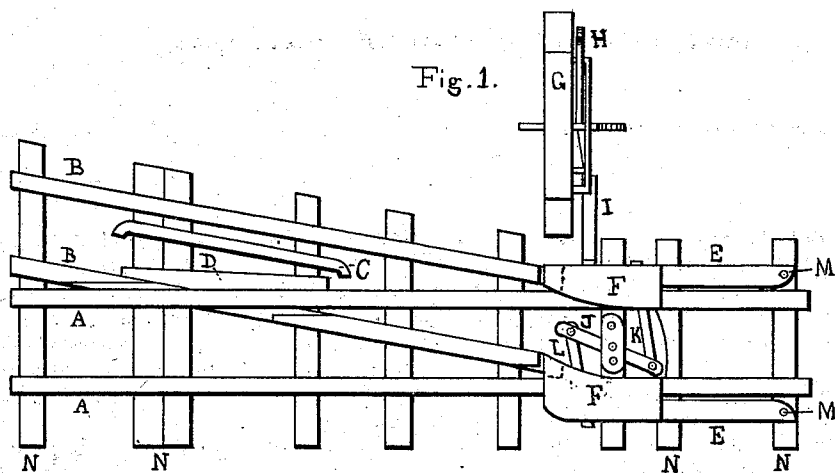


B. BACON.
Railway-Switches.

No.154,439.

Patented Aug. 25, 1874.



Witnesses:

Wm. Bond.

Henry D. Brown

Inventor:

Benjamin Bacon.
By Wm. Bond
His Atty.

UNITED STATES PATENT OFFICE.

BENJAMIN BACON, OF MORRISON, ILLINOIS.

IMPROVEMENT IN RAILWAY-SWITCHES.

Specification forming part of Letters Patent No. **154,439**, dated August 25, 1874; application filed April 10, 1873.

To all whom it may concern:

Be it known that I, BENJAMIN BACON, of Morrison, in the county of Whitesides and State of Illinois, have invented an Improved Railway-Switch, of which the following is a specification:

The object of my invention is to form a railway-switch by raising the switch-rails the width of the wheel-flanges higher than the main rails, so as to dispense with frogs and nearly all of the guide-rails of ordinary switches; and its nature consists in the elevation of the side rails and the wedge-shaped projections on the swing rails or bars.

In the drawings, Figure 1 is a plan view with the switch closed so as to throw the train onto the side rails; Fig. 2, a side view; and Fig. 3, a plan view, showing the switch open so as to pass the train on the main rails.

A represents the main rails; B, the side rails; C, a guard-rail; D, a supporting-block; E, swinging bars or rails; F, wedge-shaped plates or projections on the ends of the bars E; G, switch-stand; H, lever; I, connecting-rod; J, swing-bar; K and L, connecting-rods connecting the bar J with the rails or bars E; M, pivot; N, ties; and *a*, shoulder, upon which the plates F rest when in the position shown at Fig. 1. The side rails B are elevated about one and one-fourth inch above the main rails, or just enough to allow the flanges of the wheels to pass over the main rails. The plates F are made wide enough to cover both rails when closed, and are wedge-shaped or inclined, so as to give an easy grade from the main to the side rail, and to prevent abrasion of the thinner end, I propose to make that end of steel; or the plates may be made entirely of steel, if desired. They are curved or inclined, as shown in the plans, at the sides, so as to give the necessary turn to the wheels. The bars E can be made of inverted rails, and the

plates be bolted to them, or they may be made with the plates a part of them. I make the inclines F from six to eight feet in length, and the bars E sixteen feet or more in length. I propose to use any suitable switch-stand, and connect it with the bars, so as to move them in opposite directions, or give them an open-and-shut movement.

In the device shown I have a pivoted bar, J, connected by rods L K. By using a rotary switch in place of lever H, the bar J can be transferred to the switch-stand, and a direct connection made by simply lengthening the connecting-rods K L and dispensing with the rod I.

Where the rail B crosses, I place an inverted rail or block, D, so that the wheels, while crossing the rail A, run on their flanges, and I thereby avoid jarring and the abrasion of the ends of the rails.

By the arrangement of the plates F and the block D I dispense with all of the guard-rails except one, and I am enabled to place the whole upon ordinary ties, and to dispense with frogs and base-plates, and thereby make the whole simple and efficient in its construction and operation.

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

1. The bars E E, provided with inclined plates F F, the under parts of the plates being recessed, in combination with the rails B B, with shoulders *a a*, as and for the purpose specified.

2. The main rails A, side rails C, and guard D, in combination with bars E, inclined plates F, stand H, lever I, rod J, and bars K and L, substantially as and for the purpose specified.

BENJAMIN BACON.

Witnesses:

E. A. WEST,
O. W. BOND.