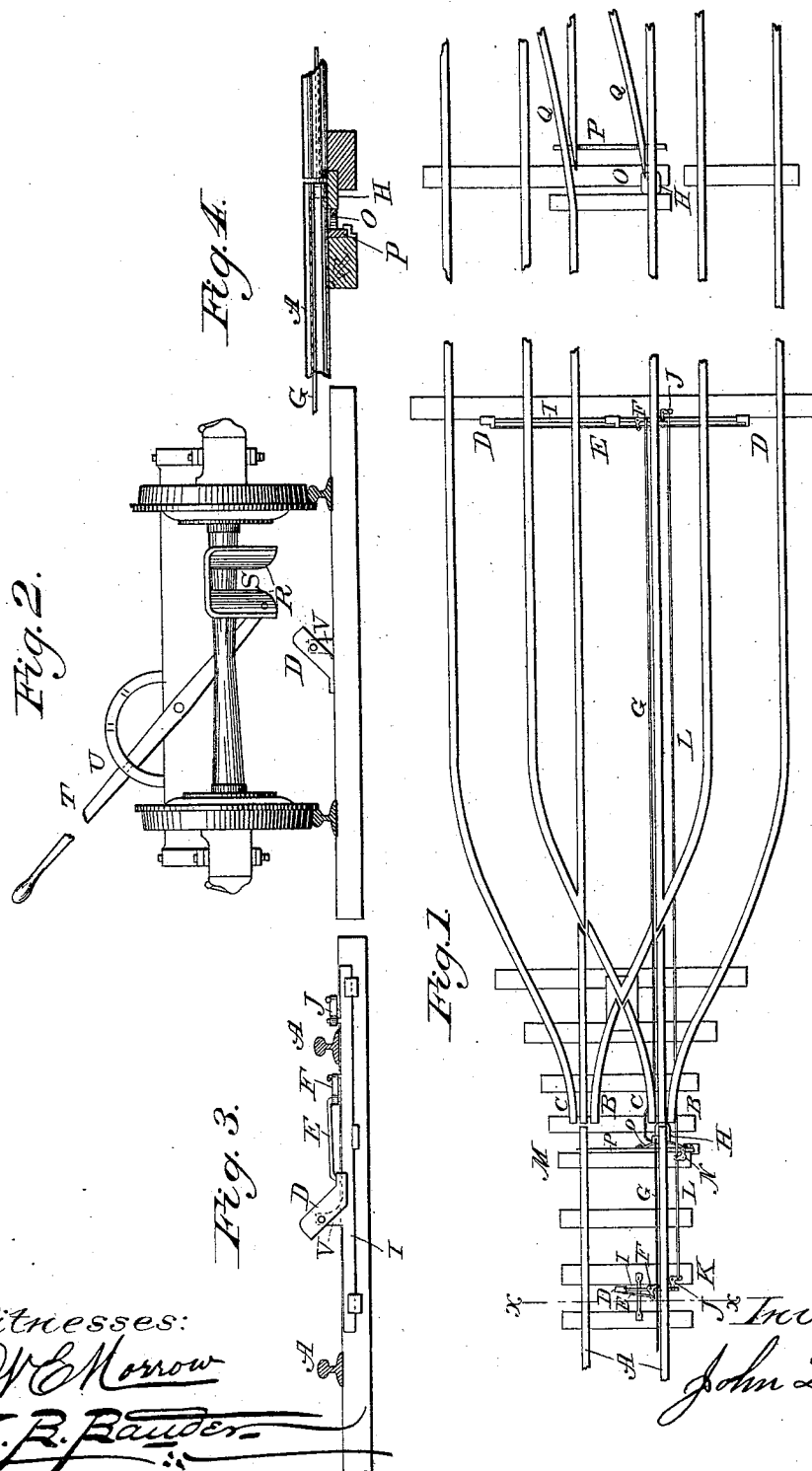


(No Model.)

J. L. HOYER.
RAILROAD SWITCH.

No. 361,699.

Patented Apr. 26, 1887.



Witnesses:
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UNITED STATES PATENT OFFICE.

JOHN L. HOYER, OF CLEVELAND, OHIO.

RAILROAD-SWITCH.

SPECIFICATION forming part of Letters Patent No. 361,699, dated April 26, 1887.

Application filed January 15, 1886. Serial No. 188,644. (No model.)

To all whom it may concern:

Be it known that I, JOHN L. HOYER, a citizen of the United States, residing in the city of Cleveland, county of Cuyahoga, and State of Ohio, have invented a new and useful Improvement in the Manipulation of Railroad-Switches, of which the following is a specification, reference being had to the accompanying drawings, forming part thereof.

Figure 1 is a plan view of a switch-plant and my device applied thereto. Fig. 2 is an end view of a truck and the switch-actuating device carried thereon. Fig. 3 is a sectional view taken on line *x x*, Fig. 1, and upon an enlarged scale. Fig. 4 is a detail view of the switch-lock.

Heretofore railroad-switching has been done from the side of the track with a lever. In this device it is governed by mechanism placed in the center of the track as well.

The leading feature of my invention consists of a lug and trip located between the track-rails, which are moved at will by a double-flanged shoe suspended from beneath the truck and adjusted by a suitable lever, which is held in position by a catch engaging suitable notches corresponding to the track aimed at.

A A represent the main-track rails; B B and C C, the rails of the side tracks. D is the trip; E, a rod extending from the trip to the angle-lever F, which is pivotally mounted upon the sliding bar I.

G is a rod leading from the lever F to the switch-locking device H.

I is a sliding bar, at one end of which, upon a lug, V, is mounted the trip D, and connected at its other end to the angle-lever J, which is connected by rod L and lever N to the switch-bar P.

H is a sliding lock, which is adapted to embrace the flanges and webs of two adjoining rails, and thus hold them securely in position.

O is a spiral or elliptic spring, forcing the plate H forward.

R R represent the front edges of the operating-shoe beveled or flaring outwardly. S is the central opening therethrough; T, a lever for adjusting the shoe upon the beam of the truck, provided with any suitable catch to engage with notches in the indicator U.

The trip D consists of a plate standing in an oblique position, pivoted to the lug V by a bolt, so that it may be thrown erect. To the trip D is fastened rod E, which in turn is fastened to angle-lever F, angle F being fastened

to rod G and rod G connected to locking-plate H, which is bifurcated, and when in place forms a continuous rail.

The double flanged shoe consists of an iron fastened to the cross-beam of the truck, having two flanges or sides, R R, extending downward, being in distance apart in the center sufficient to allow the lug V and trip D to pass through in an erect position, and from thence slanting outward from each other, which can be lowered and shifted at will by means of lever T, which is attached to the shoe, and leads into the cab or engineer's room, and governed by the indicator, which is a notched bar of iron so arranged that each notch represents the number of the track (right or left) which is intended. By raising the lever the shoe drops down, and the beveled flange, coming in contact with the trip D, raises it into an erect position, causing rod E to follow, thereby causing angle F to swing around and pull back rod G, which proportionately draws back lock H a sufficient distance to allow lock H to pass the end of the fixed rail. Then passing through the center of shoe S, coming in contact with the lug V, which causes lug V to move either way the required distance, thereby causing angle J to swing around, which moves rod L, which causes angle N to swing around, which accordingly moves bar P the required distance according to the notches on the indicator, after which the spring O throws the lock forward and makes a continuous rail.

What I desire to secure by Letters Patent is—

1. The combination of the flanged shoe R, provided with central opening, S, lever T, and indicator U, with bar I, trip D, rod E, angle-lever F, rod G, movable lock-plate H, spring O, angle-lever J, angle-lever N, rod L, bar P, and the switch-rails, all substantially as set forth.

2. The combination of the trip D, rod E, angle-lever F, and rod G with the movable lock-plate H and spring O, substantially as shown, and for the purpose specified.

3. The combination of the switch-rails, the bar I, provided with lug V and means for shifting the same laterally, with angle-levers J and N, rod L, and bar P, substantially as set forth, for the purpose specified.

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Witnesses:

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