

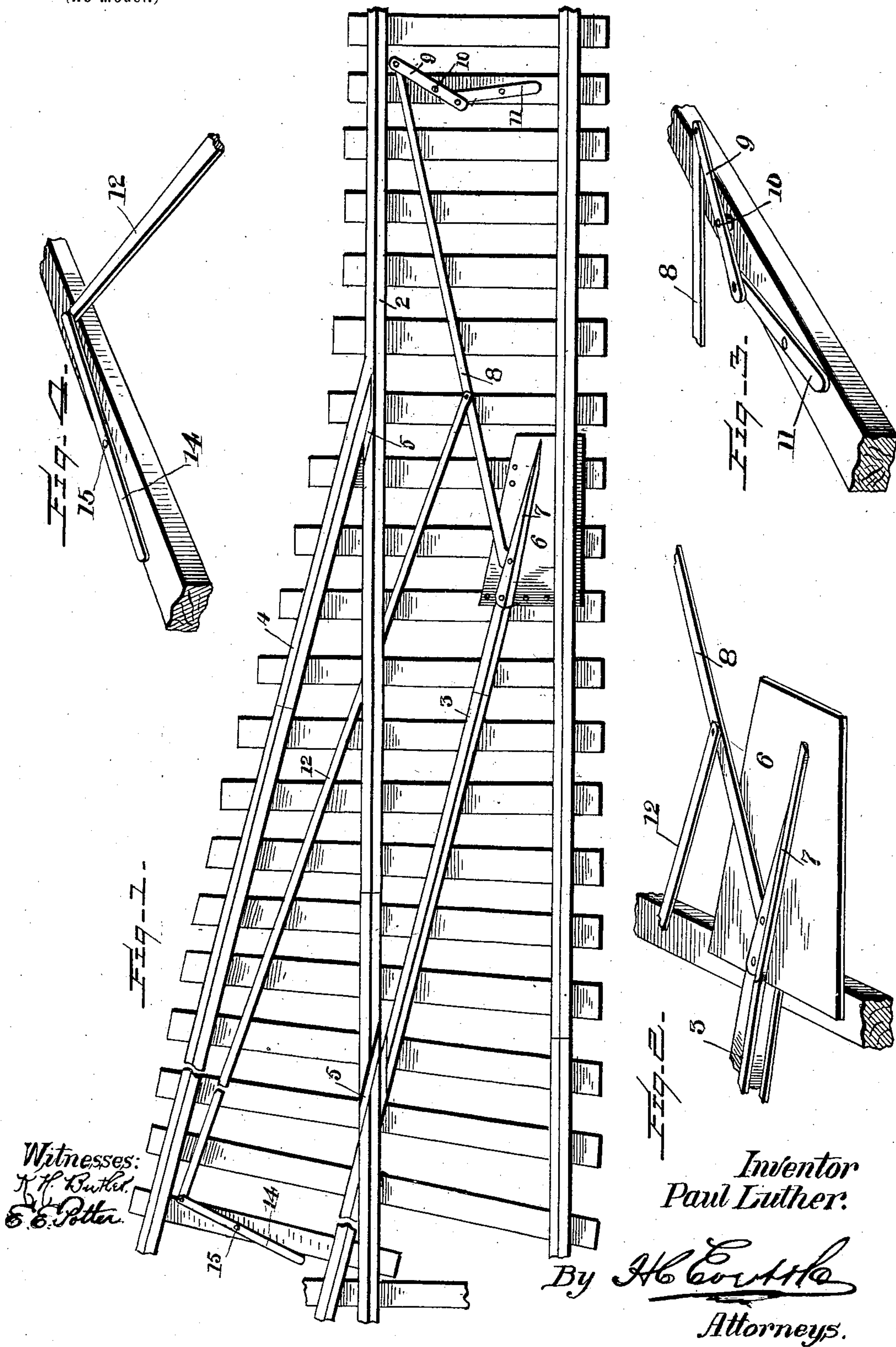
No. 698,982.

Patented Apr. 29, 1902.

P. LUTHER.
SWITCH THROWING DEVICE.

(Application filed Nov. 5, 1901.)

(No Model.)



UNITED STATES PATENT OFFICE.

PAUL LUTHER, OF ALLEGHENY, PENNSYLVANIA.

SWITCH-THROWING DEVICE.

SPECIFICATION forming part of Letters Patent No. 698,982, dated April 29, 1902.

Application filed November 5, 1901. Serial No. 81,245. (No model.)

To all whom it may concern:

Be it known that I, PAUL LUTHER, a citizen of the United States of America, residing at Allegheny, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Switch-Throwing Devices, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention relates to certain new and useful improvements in switches, and has for its object to provide a switch which may be conveniently and easily operated from a moving car or train.

15 Briefly described, the invention comprises, in connection with a pivoted switch-tongue, a throwing-rod which is pivoted thereto and to a pair of throwing-levers arranged in the road-bed, which are adapted to be operated by means of a suitable shoe suspended from the car or train. An auxiliary throwing-rod is pivoted to the first-mentioned throwing-rod and is extended on the side track, where it is pivoted to a lever suitably arranged in the road-bed, this latter mechanism being adapted to return the switch to its normal position after the car or train has passed onto the side track, so that the main track is normally open.

30 In describing the invention in detail reference is had to the accompanying drawings, forming a part of this specification, and wherein like numerals of reference indicate corresponding parts throughout the several views, in which—

35 Figure 1 is a top plan view of a portion of the railroad-track with my improved switch in position. Fig. 2 is a detail perspective view of the switch-tongue and a pair of throwing-levers, showing the plate on which the tongue operates. Fig. 3 is a detail perspective view of the throwing-levers arranged in the road-bed of the main track. Fig. 4 is a like view of the throwing-levers in the switch or side track.

45 In the accompanying drawings, 1 and 2 indicate the rails of the main track, and 3 4 the rails of the side or switch track. The rails 2 of the main track are recessed, as at 5 5, where they intersect with the rails of the side track, so that the flanges of the wheels may pass

onto the rails 3 4 of the side track. A saddle-plate 6 is placed on the ties and suitably secured thereto, and this saddle-plate has a switch-tongue 7 pivoted thereon in alinement with the rails 3 of the side track. This switch-tongue is pivoted to a throwing-rod 8, which extends forwardly from the switch and has its outer end pivoted to a link or lever 9, which is pivoted, as at 10, to one of the cross-ties, and has its other end pivotally connected to a link or lever 11, the latter being also pivoted upon the cross-ties. The switch-tongue is normally in an open position, as shown in Fig. 1 of the drawings, for traffic on the main track. When it is desired to pass to the side track, a suitable shoe (not shown) is dropped, so as to engage with the free end of the lever 11, thus forcing the free end of the lever toward the switch-tongue, moving the opposite end of the lever away from the switch-tongue, moving the outer end of the lever or link 9, together with the rod 8, toward the switch-tongue, thus throwing the switch-tongue over into engagement with the rail 1 and causing the car or train to pass to the side track. After the car has passed to the side track it is desirable to again open the switch, and to accomplish this I provide a throwing-rod 12, pivotally connected at its one end to the rod 8 at a point some distance from the switch-tongue 7. The outer end of this rod 12 connects to the lever 14, pivoted at 15 to one of the cross-ties. The shoe or other device carried by the car or train is dropped into engagement with the free end of the lever 14, thus operating the rod 12 in the opposite direction, so as to return the switch-tongue to the open position, (shown in Fig. 1 of the drawings,) leaving the switch open for traffic on the main track.

It will be noted that various changes may be made in the details of construction without departing from the general spirit of my invention.

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In combination with a pivoted switch-tongue, a throwing-rod pivoted thereto, a pivoted lever to which the outer end of said throwing-rod is connected, a like lever piv-

oted to the first-mentioned lever whereby when the latter is actuated the switch-tongue is moved away from the main track, a throwing-rod pivoted to the first-mentioned throwing-rod, and a lever to which the outer end of said second-named throwing-rod is attached for returning the switch-tongue to its normal position, substantially as described.

2. In a switch, the combination with the
10 main rails and the side rails, of a switch-tongue pivoted to a saddle-plate, a throwing-rod pivoted to said switch-tongue, a pivoted

lever to which the outer end of said throwing-rod is connected, a throwing-rod connected to the first-mentioned throwing-rod, and a pivoted lever to which the said second-named throwing-rod is connected, substantially as described. '5

In testimony whereof I affix my signature in the presence of two witnesses.

PAUL LUTHER.

Witnesses:

JOHN NOLAND,
E. E. POTTER.