

J. M. PERKINS.
RAILWAY SWITCH.

Patented July 14, 1896.

WITNESSES:

WITNESSES:

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BY

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JOHN M. PERKINS, OF BROOKLYN, NEW YORK.

RAILWAY-SWITCH.

SPECIFICATION forming part of Letters Patent No. 564,159, dated July 14, 1896.

Application filed March 7, 1896. Serial No. 582,168. (No model.)

To all whom it may concern:

Be it known that I, JOHN M. PERKINS, of Brooklyn, in the county of Kings and State of New York, have invented a new and useful Improvement in Railway-Switches, of which the following is a full, clear, and exact description.

My invention relates to an improvement in railway-switches, being especially adapted for use in connection with surface cars; and the object of the invention is to simplify the construction of such switches, and to provide for the switch being shifted, while the car is in motion, through the medium of a projection manipulated from the front platform of the car.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a plan view of the improved switch. Fig. 2 is a longitudinal vertical section taken substantially on the line 2 2 of Fig. 1, and Fig. 3 is a transverse vertical section taken substantially on the line 3 3 of Fig. 1.

In carrying out the invention the main rails A and the switch-rails B are placed in the usual relation to each other, one of the points, 10, being stationary and the other point, 11, being pivoted, and the pivoted or movable point is held to slide in a shoe 12, which is preferably an integral portion of the main rail A, and also the guard at the inner side of the movable switch-point. Between the junction of the two main and side rails a face-plate D is embedded in the surface of the road-bed, and this plate is preferably somewhat T-shaped, comprising a long member 13, which is parallel with the main rails, and a transverse member 14, which is preferably integral with or attached to the shoe 12, receiving the movable switch-point.

At that end of the longitudinal member of the face-plate which is approached by the car a raised surface is formed at each side of this member, extending from a point near its forward end to a point approximately opposite

the longitudinal center of the member 14. These raised surfaces are designated in the drawings as 16 and 17, and they are preferably inclined upon their inner faces substantially to their rear ends; and in the rear end of each of the elevations or raised surfaces 16 and 17 of the face-plate a recess 18 is formed, preferably of a semicircular shape, and in each of the recesses the forward end of a shifting-arm is pivoted, the shifting-arms being designated, respectively, as 19 and 20.

The edge of each shifting-arm which faces the main rail is provided with a beveled surface 21, adapted as the arms are moved to carry any obstructions that may be on the face-plate from the path of the arms. Each shifting-arm 19 and 20 is pivotally connected with the shifting-bar 15, preferably half-round and chisel-shaped at the ends, the said shifting-bar being pivotally attached to the movable switch-point 11, and it has movement transversely of the face-plate in a suitable groove 15^a, or in or upon a surface especially prepared for it and adapted to guide it.

In making the attachment of the two shifting-arms to the shifting-bar, one of them is placed at a right angle to the shifting-bar and the other at more or less of an acute angle, as shown in Fig. 1. Between the raised surfaces 16 and 17 of the shifting-plate, and likewise between the shifting-arms 19 and 20, a guide-block 22 is formed upon the central portion of the longitudinal member of the face-plate, and this block is longitudinally of substantially wedge shape and is widest at the point *a*, which is between the shifting-arms 19 and 20, so as to protect these arms from being battered or interfered with by a vehicle crossing the track. The block 22 serves in a measure also to guide the device which shall be pendent from the car and adapted to move the shifting-arm. If the car is to pass up the main track, for example, the right-hand shifting-arm 19 being at a right angle to the shifting-bar, even if the shifting device on the moving car is lowered to travel between the said arm 19 and the guide-block 22, the shifting device of the car will pass on uninterruptedly and the car will continue on the main track. In the event, however, that the car is to be passed to the siding or switch, the shifting device of the car will be lowered so

as to be in the path of the left-hand shifting-arm 20, and will move that arm to the left, thereby bringing the switch-point 11 in position to conduct the car as desired, the oppos-
 5 ing shifting-arm 19 then assuming an acute angular position with reference to the shifting-bar and the left-hand shifting-arm being at a right angle to the same bar.

Preferably a flange 23 is formed upon the
 10 forward end of the horizontal member of the face-plate at both sides, the left-hand flange extending the entire length of the said member of the plate and the right-hand flange extending only to the raised surface 16. In the
 15 event that the shifting device employed on the car should become misplaced by any means, it will strike the inclined inner surface of each of the projections 16 and 17, according to the side of the face-plate at which
 20 it is lowered, and will be directed by the inclined surfaces to the space between one or the other of the shifting-arms and the interposed guide-block 22.

Having thus described my invention, I
 25 claim as new and desire to secure by Letters Patent—

1. The combination with a movable switch-point, of a face-plate having projections on its sides inclined on their inner faces, a shift-

ing-bar pivoted to the switch-point, arms 30 pivoted to said bar and to the face-plate, one of said arms having a position at right angles to the shifting-bar while the other is at a lesser angle, the said arms being beveled downward and outward on their outer edges, and a
 35 wedge-shaped guide-block on the plate and extended with its broad end between the pivoted arms, substantially as described.

2. The combination, with a movable switch-point, a face-plate provided with side projec- 40 tions longitudinally formed and having inclined inner faces, being provided with sockets at one of their ends, and a shifting-bar connected with the switch-point and having movement on the face-plate in front of the
 45 socket ends of the side elevations of the said plate, of a substantially wedge-shaped guide-block located between the elevations of the face-plate, and shifting-arms pivoted one in each socket portion of each of the said pro- 50 jections, the said shifting-arms being pivoted to the shifting-bar, one at a right angle to the bar and the other at the lesser angle, substantially as described.

JOHN M. PERKINS.

Witnesses:

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