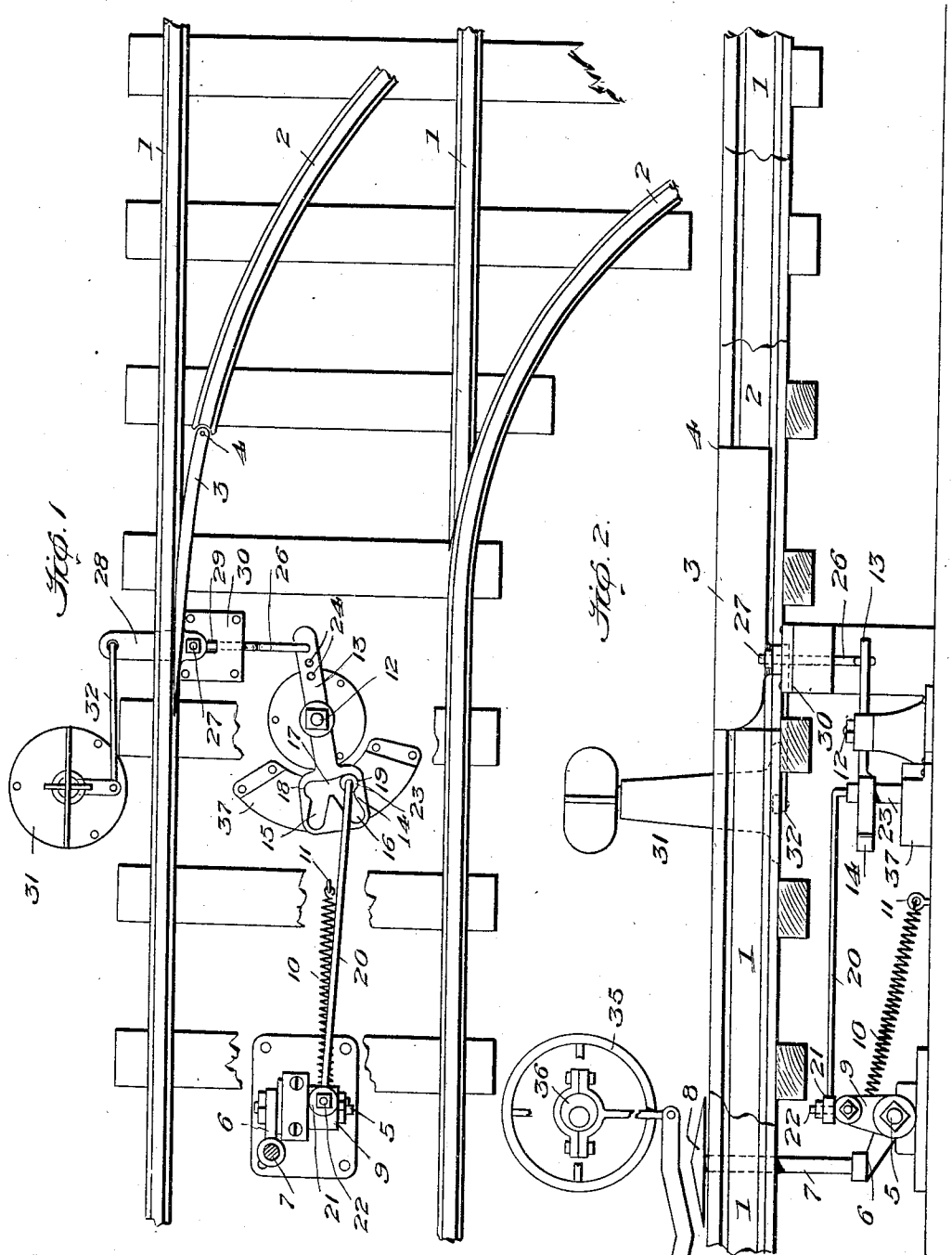
H. WILKINS.

RAILWAY SWITCH.

APPLICATION FILED MAR. 12, 1912.

**1,067,703.**

Patented July 15, 1913.




WITNESSES

P. V. Lockwood

INVENTOR

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# UNITED STATES PATENT OFFICE.

HARRY WILKINS, OF EVANSVILLE, INDIANA, ASSIGNOR OF ONE-HALF TO JAMES P. WILSON, OF EVANSVILLE, INDIANA.

## RAILWAY-SWITCH.

1,067,703. Specification of Letters Patent. Patented July 15, 1913.

Application filed March 12, 1912. Serial No. 683,322.

*To all whom it may concern:*

Be it known that I, HARRY WILKINS, a citizen of the United States, residing at Evansville, county of Vanderburg, and State of Indiana, have invented certain new and useful Improvements in Railway-Switches, of which the following is a specification.

This invention relates to railway switches.

My object is to provide a railway switch having improved self-restoring operating means adapted to be actuated from the car or locomotive under the control of the engineer or motorman so that the switch may be thrown or allowed to remain in its normal position, as may be desired, according to which track is to be taken; and with this end in view the invention consists in an improved switch operating mechanism, also adapted to set a signal, if desired, embodying a trip, means on the car for actuating said trip, a rocker, a switch throwing mechanism embodying a shifting bar, and a rocker having cam devices coöperating with the shifting bar, together with a spring device for restoring the operating mechanism to a normal or set position, as will appear more fully hereinafter.

The invention consists, further, in a trip and improved controlling means therefor carried by the car or locomotive.

In the accompanying drawings: Figure 1 is a plan; and Fig. 2, an elevation, partly in section.

The main and branch rails are shown at 1 and 2, respectively, and the switch at 3, the latter being pivoted at 4.

Located below the rail in any suitable position is a rock shaft 5 having an arm 6 from which rises a trip 7 having a head 8. Shaft 5 has another arm 9 to which is connected a spring 10 anchored at 11, the action of which keeps the switch 3 in closed position.

At 12 is a standard on which is pivoted a rocker 13 arranged to swing in a general horizontal plane and carrying at one end a head 14 which has intersecting cam slots 15 and 16 which merge into an opening 17 having rounded corners 18 and 19. A shifting member 20 which has an eye 21 pivoted on the vertical shank of an eye bolt 22 in turn pivotally mounted on arm 9, has a depending end provided with an anti-friction roller 23 which is adapted to play in the slots 15 and 16 and the open part 17 and to be projected into the corners 18 and 19.

The opposite end of the rocker 13 is provided with a plurality of holes 24 in any one of which may be inserted the end of a switch operating rod 26 which is connected at 27 to a bar 28 that is secured to the switch 3, the connection 27 sliding in a slot 29 in a plate 30.

If desired, a standard semaphore 31 may be disposed alongside the track and operated from the bar 28 by a rod 32 so that the semaphore will be turned to indicate the condition of the switch.

The car or locomotive carries a striker or trip 33 pivoted to the car at 34 and arranged to be brought into engagement with the head 8 when said striker is depressed. A wheel 35 having an eccentric connection 36 to the free end of the striker 33 and operated by hand or by air or other suitable means is used to depress the striker 33 when the switch is to be operated. The use of an eccentric 36 in this connection affords a connection of great strength and one which is self-locking so that when the striker 33 is depressed, it remains so until the wheel 35 is turned and the shock of the impact between the striker 33 and the head 8 is not appreciably imparted to the means that operates the wheel 35.

When the striker 33 hits the head 8, the rock shaft 5 is turned against the action of spring 10 whereupon the end of the shifting bar 20 is drawn into the slot 16 and the rocking of the rocker 13 turns the semaphore 31 and opens the switch 3. After the car or train has passed the switch, the spring 10 restores the rock shaft 5 and the head 8 to normal position, meanwhile moving the shifting bar 20 back to its first position during which the roll 23 is guided into the corner 18 and consequently the switch remains in its set position and the signal indicates the position of the switch so that the engineer or motorman of a following train or car may know whether he should operate the switch or leave it as it stands. If the striker 33 is again depressed, the shifting bar will have its roller 23 pulled into the slot 15, thereby restoring the switch to closed position and the signal will then indicate the position of the switch. To support

the end shifting bar 20 and the roll 23, I preferably provide below them and below the head 14, a plate 37.

It will be observed that the connection 21, 22, permits the shifting bar to play laterally.

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

In a switch operating mechanism, a rocker adapted for controlling the switch and provided with intersecting cam grooves, in combination with a shiftable member having a part adapted to alternately play in the respective cam grooves, a rock shaft having arms, a trip adapted to coöperate with one of the arms, a member pivoted to the other arm of the rock shaft the shiftable member having a pivotal connection with the said last-named arm whereby said shiftable member may swing while moving to and fro, and a spring for maintaining the trip and the shiftable member in a given position.

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

HARRY WILKINS.

Witnesses:
JAMES WILSON,
ALBERT ANGEL.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."