(No Model.)

# W. DOUGLAS.

## RAILROAD SWITCH.

No. 525,140. Patented Aug. 28, 1894.

Fig. 1.

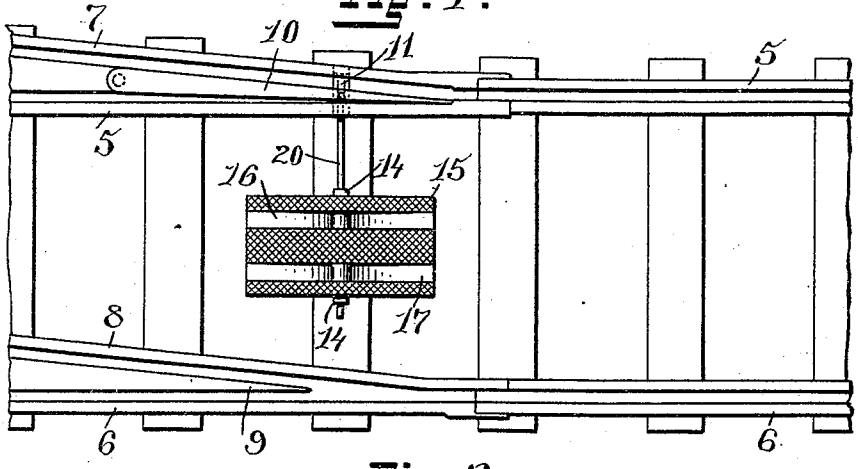



Fig. 2.

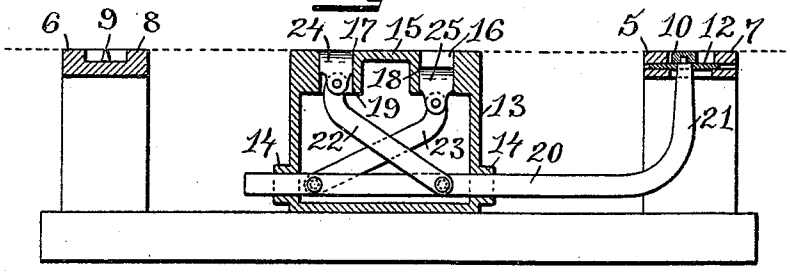
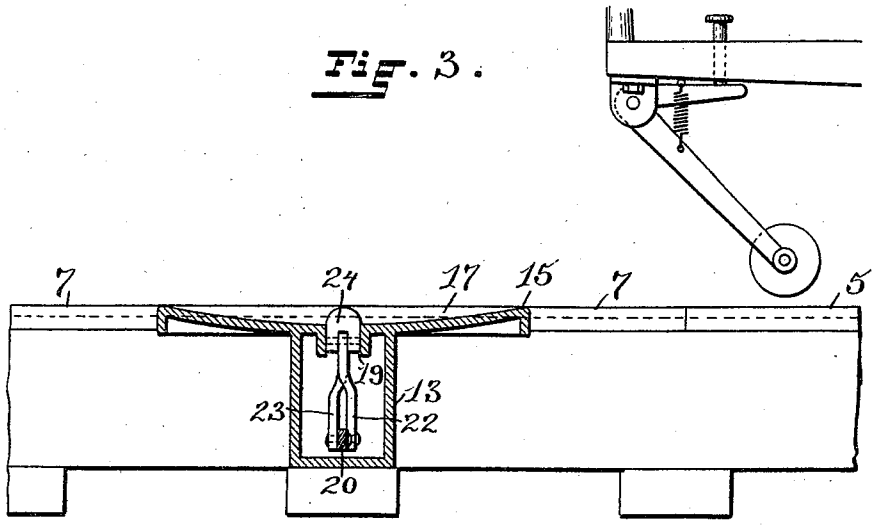



Fig. 3.




WITNESSES:

Henry J. Miller

Chas. H. Luckin Jr

INVENTOR:

William Douglas

by Joseph A. Miller & Co.

Attys.

# UNITED STATES PATENT OFFICE.

WILLIAM DOUGLAS, OF PROVIDENCE, RHODE ISLAND.

## RAILROAD-SWITCH.

SPECIFICATION forming part of Letters Patent No. 525,140, dated August 28, 1894.

Application filed March 24, 1894. Serial No. 504,982. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM DOUGLAS, of Providence, in the county of Providence and State of Rhode Island, have invented certain new and useful Improvements in Railroad-Switches; and I hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification.

This invention has reference to improvements in railroad switches and resides particularly in the means for operating the same.

The object of the invention is to provide a simple and efficient switch-operating mechanism which may be actuated by means of a depressing device.

Another object is to reduce the cost of manufacture of the switch as well as the space occupied by the operating mechanism.

The invention consists in such peculiar features of construction and combination of parts as may hereinafter be more fully described and pointed out in the claim.

Figure 1 represents a plan view of portions of a main track and a siding with the improved switch connecting the same. Fig. 2 represents a cross-sectional view of the same. Fig. 3 represents a longitudinal sectional view of the lever casing showing the front portion of an approaching car furnished with means for depressing the plungers.

Similar numbers of reference designate corresponding parts throughout.

In the drawings 5 and 6 indicate the rails of the main-line track, 7 and 8 being portions of the rails leading to the siding which are connected by the frog 9 and a switch, provided with a pivoted tongue 10, with the rails of the main line, in the lower surface of the switch is the cross slot 11 and above this slot is reciprocally mounted the plate 12 on which rests the switch-tongue 10.

Located below the rail level between the tracks and opposite the switch is a casing 13 having the lateral guides 14—14 in the side walls and provided with the extended top-plate 15 which rests on the surface of the ground or on the sleepers of the track, in this top are formed the grooves, or guideways, 16 and 17 deeper at the center of the plate than at the ends, the center of the plate being furnished with the vertical guides 18 and 19 connecting respectively with the grooves 16 and 17.

In the guides 14 is reciprocally mounted the lever 20 having the upwardly-curving end 21 which is pivotally connected with the plate 12 and with the free end of the switch tongue 10. To that portion of the lever 20 within the casing are pivoted the diagonally-extending arms 22 and 23 which cross each other, their upper ends being curved and pivoted to the plunger-blocks 24 and 25, movable in the vertical guides 16 and 17, so that the depression of the plunger-block 25 will actuate the arm 23 to reciprocate the lever 20 and the switch tongue toward the left, while the depression of the plunger-block 24 actuates the arm 22 to reciprocate the lever and switch in the opposite direction, the depression of either plunger elevating the other plunger to a position where it can be operated upon. The upper surfaces of these plungers are rounded to facilitate the action thereon of a wheel or other device carried by the car.

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

In a switch, the combination with the case 13 having the lateral guides 14—14 and furnished with the top 15 having the grooves 16 and 17 and the vertical guides 18 and 19, of a lever reciprocally mounted in the guides 14, the oppositely-inclined arms 22 and 23 pivoted to such lever, and the plungers 24 and 25 movable in said vertical guides to which the upper ends of these arms are pivoted, as described.

In witness whereof I have hereunto set my hand.

WILLIAM DOUGLAS.

Witnesses:
JAMES S. MCLARER, Jr.,
JOSEPH A. MILLER, Jr.