

No. 637,539.

Patented Nov. 21, 1899.

F. WALTER.
AUTOMATIC STREET RAILWAY SWITCH.

(Application filed June 3, 1899.)

(No Model.)

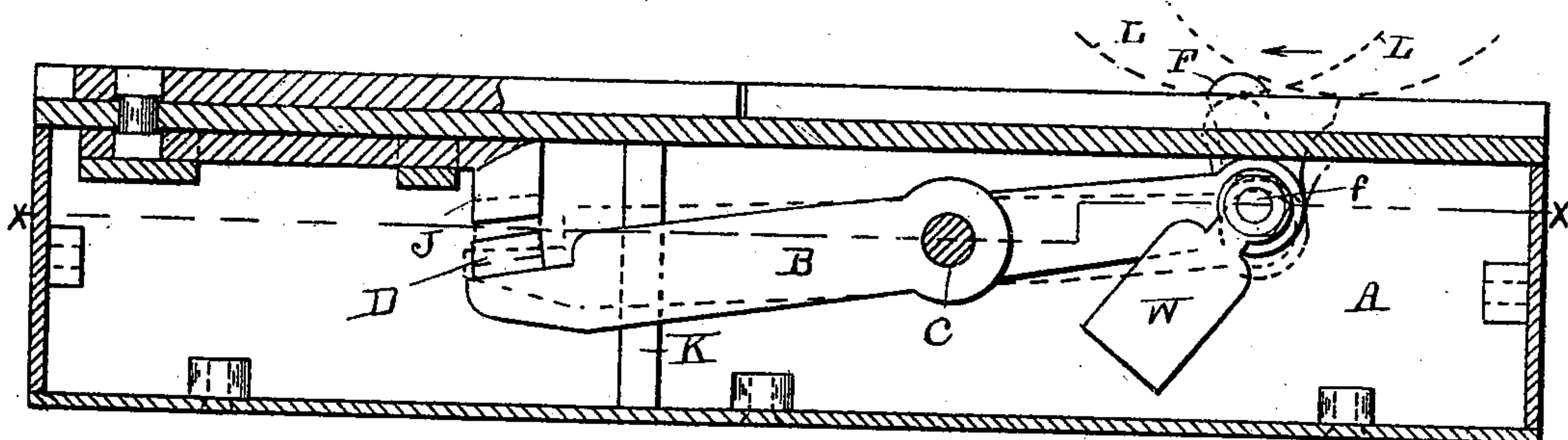


Fig. 1.

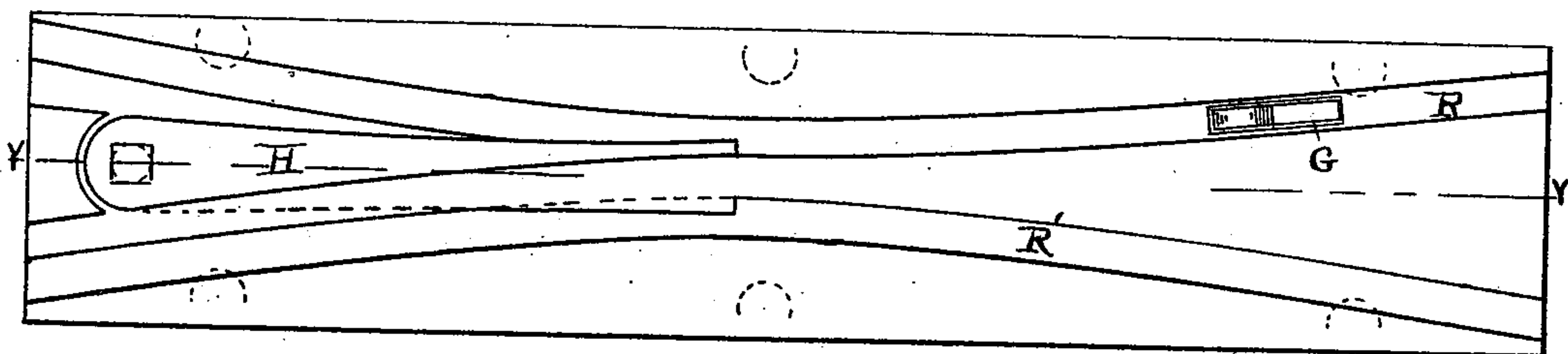


Fig. 2.

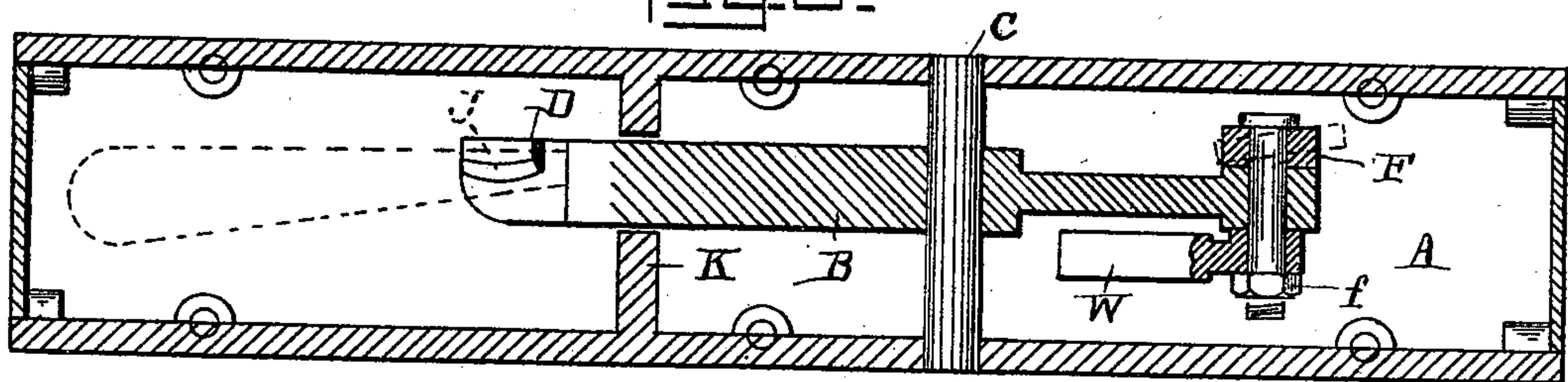


Fig. 3.

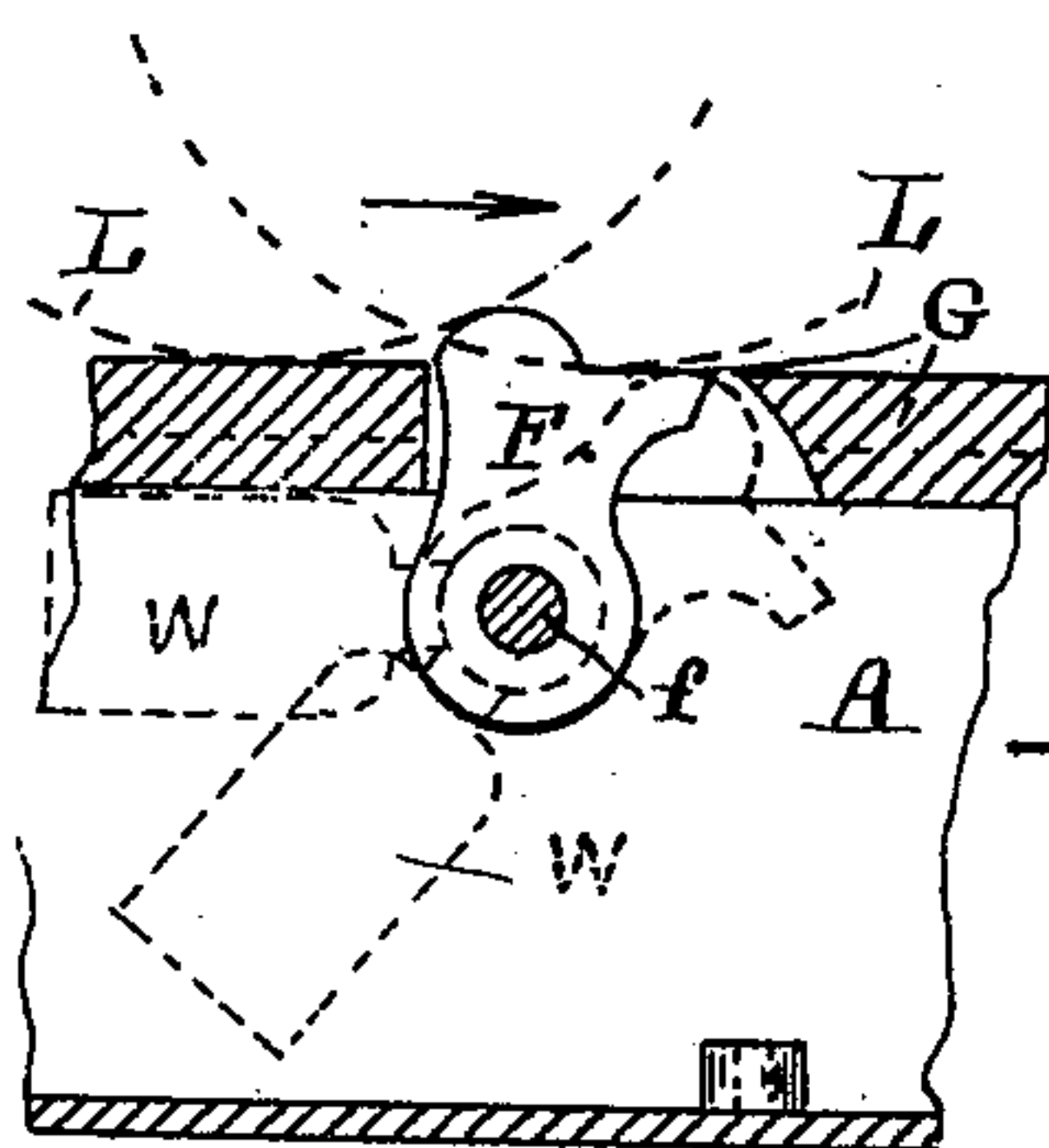


Fig. 4.

Witnesses-

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UNITED STATES PATENT OFFICE.

FRANKLIN WALTER, OF ALBANY, NEW YORK, ASSIGNOR OF NINE-TWENTYETHS TO HENRY C. LANGE, GEORGE STECHER, AND CHARLES ZAUTNER, OF SAME PLACE.

AUTOMATIC STREET-RAILWAY SWITCH.

SPECIFICATION forming part of Letters Patent No. 637,539, dated November 21, 1899.

Application filed June 3, 1899. Serial No. 719,318. (No model.)

To all whom it may concern:

Be it known that I, FRANKLIN WALTER, a citizen of the United States of America, and a resident of the city of Albany, county of Albany, State of New York, have invented certain new and useful Improvements in Automatic Street-Railway Switches, of which the following is a specification.

My invention relates to devices for automatically operating a street-railway switch; and the object of my invention is to provide a means for turning the frog in a street-railway switch by the car. I accomplish this object by means of the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a vertical section along the line Y Y on Fig. 2. Fig. 2 is a plan. Fig. 3 is a horizontal section along the lines X X on Fig. 1. Fig. 4 is a section, with part broken away, similar to Fig. 1, showing the action of the switch-arm by a car going in a direction opposite to that shown in Fig. 1.

Similar letters refer to similar parts throughout the several views.

Within a suitable casing A, placed beneath the tracks of a street-railway, I mount a lever B, pivoted in the casing, as at C, and provided at one end with a projecting knife-blade-shaped block D, at its other end and on the opposite side of the fulcrum C provided with an operating-arm F, which is mounted on a spindle *f*, passing through the end of the lever B. The operating-arm F is adapted to pass through a slot G in the rail R of a railway-track. On the spindle *f* I also arrange a weight W, so adjusted that it will tend to cause the arm F to remain in the position shown in Fig. 1, in which position it extends slightly above the rail R. The slot G in the rail R is somewhat longer than the width of the arm F and of sufficient length to allow the arm F to be depressed level with the track, as shown in Fig. 4, the weight W tending to raise the arm F after such depression and when the weight of the car passing over the same in a direction indicated by the arrow in Fig. 4 has been removed therefrom.

To the frog H of a switch, which has been placed between the rails R and R', I arrange a projecting knife-blade-shaped block J, so

adjusted in reference to the block D that when the lever B is operated upon by the arm F the knife-blade-shaped edge of the block D will engage with the edge of the block J and move the block J, and therefore the frog H, to one side, causing it to assume the position shown in dotted lines in Fig. 2, thus changing the frog from contact with the rail R to contact with the rail R', and thereby switching the car in the direction desired.

I preferably arrange within the casing A a suitable guide K for the purpose of directing and supporting in position the end of the lever B.

The operation of my invention is apparent. The car comes in contact with the arm F, going in the direction indicated by the arrow in Fig. 1, the car-wheels being indicated by dotted lines L. The arm F will be depressed. The block D will come in contact with the block J and move the switch-frog H. In case the car should be going in an opposite direction the switch-frog will be moved by the car-wheels coming in contact with the frog, moving it back to its normal position without the operation of any apparatus, and when it comes in contact, after passing the switch, with the arm F it will cause the arm F to become depressed in the slot G, as shown in Fig. 4. After passing the slot the weight W will bring the arm F again in its normal position.

What I claim as my invention, and desire to secure by Letters Patent, is—

In a device for operating a street-railway switch, a lever; a lever-arm pivoted thereto and adapted to project above the track; a weight connected with said lever-arm; a slotted opening in said track for the projection of said arm, so arranged that a car passing in one direction will operate the lever, but one passing in an opposite direction will depress the lever-arm and raise the weight, substantially as described and for the purposes set forth.

Signed by me at Albany, New York, this 29th day of May, 1899.

FRANKLIN WALTER.

Witnesses:

FREDERICK W. CAMERON,
MARY E. PARLATE.