

(No Model.)

J. A. DE VILBISS.
RAILWAY SWITCH.

No. 547,372.

Patented Oct. 1, 1895.

Fig. I.

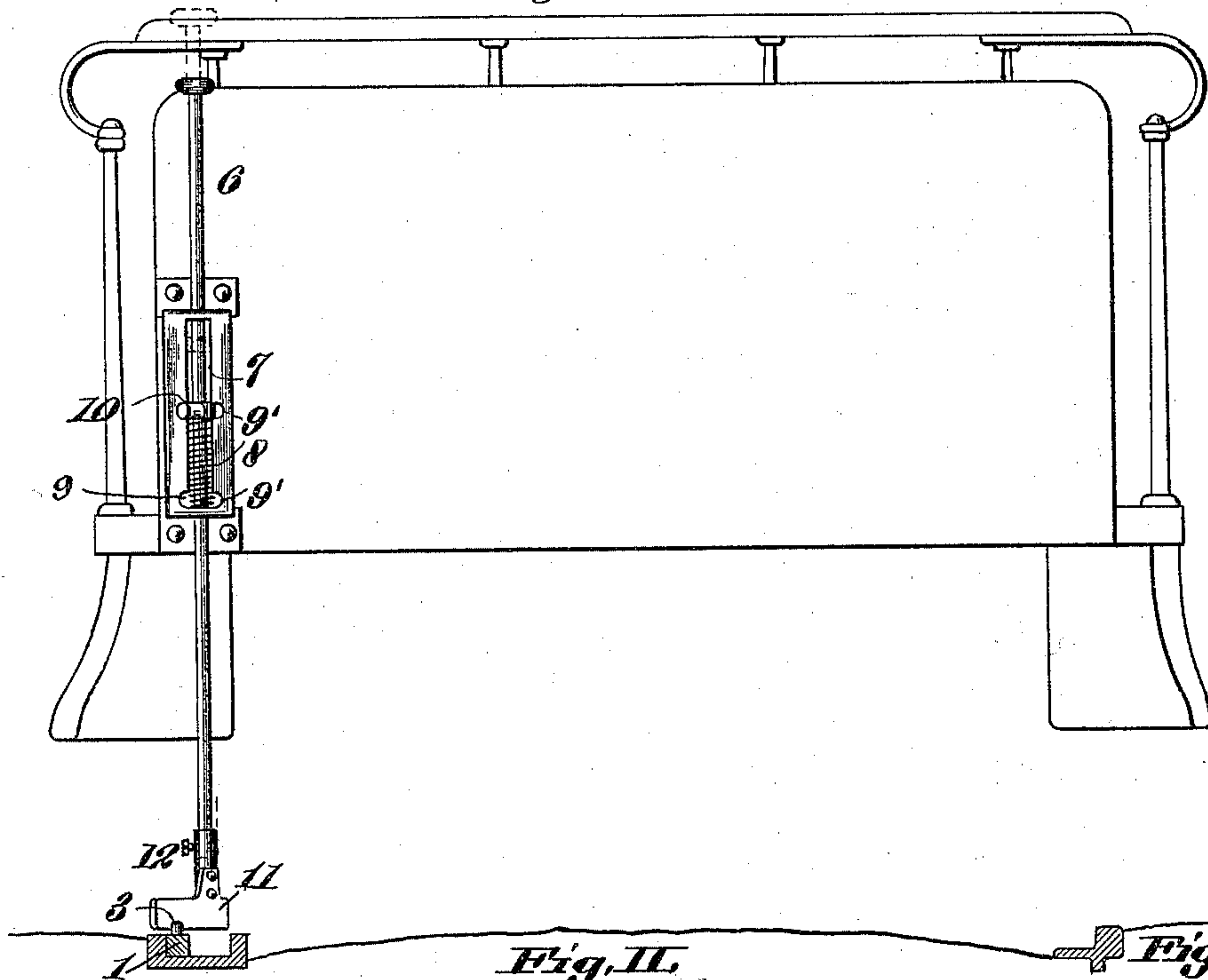


Fig. II.

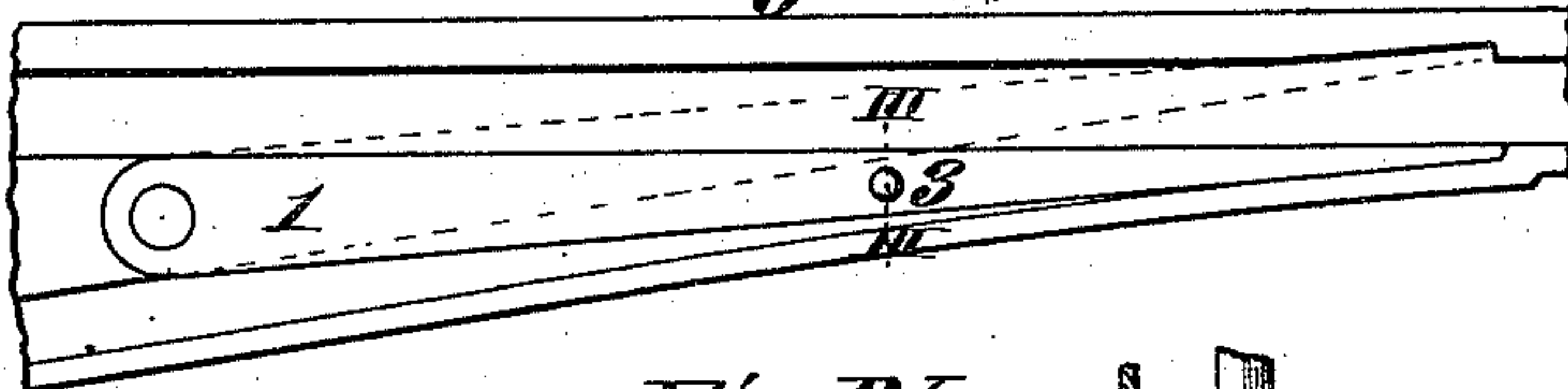


Fig. III.

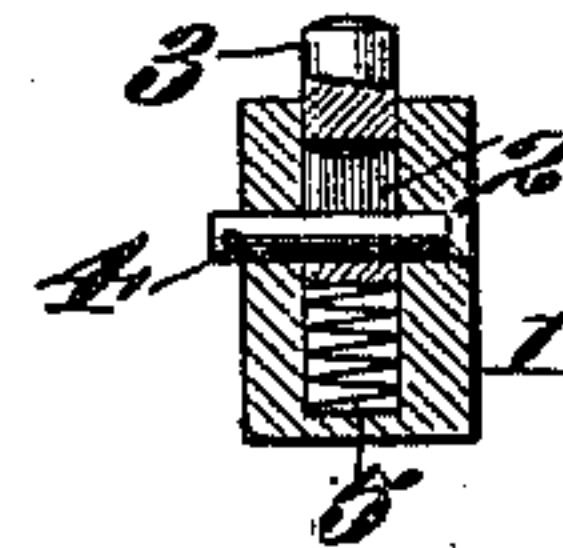


Fig. IV.

Fig. V.



Fig. VI.



Fig. VII.



Fig. VIII.

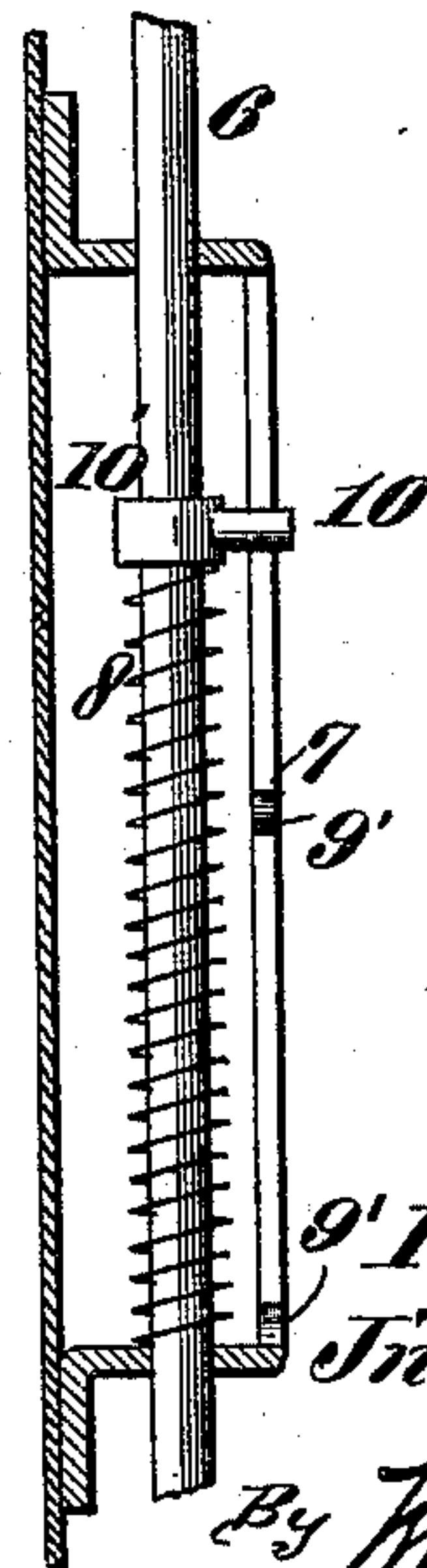


Fig. IX.



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UNITED STATES PATENT OFFICE.

JOHN A. DE VILBISS, OF QUINCY, ILLINOIS, ASSIGNOR OF ONE-THIRD TO
JAMES P. CUSACK, OF SAME PLACE.

RAILWAY-SWITCH.

SPECIFICATION forming part of Letters Patent No. 547,372, dated October 1, 1895.

Application filed April 24, 1895. Serial No. 546,993. (No model.)

To all whom it may concern:

Be it known that I, JOHN A. DE VILBISS, residing at the city of Quincy, State of Illinois, have invented a new and useful Improvement in Railway-Switches, of which the following is a full and exact description, reference being had to the accompanying drawings, forming a part of this specification.

My invention relates to a device for operating railway-switches particularly adapted to be attached to street-cars. The said device is secured to the dashboard of the car, and carries a shoe which engages a spring-pin projecting from the tongue of the switch. It possesses features of novelty hereinafter specifically pointed out and claimed.

Referring to the drawings, Figure I illustrates a front view of the dashboard of the car with my improvement attached thereto. Fig. II illustrates a top or plan view of the switch, which is of the ordinary split type. Fig. III is a vertical section through the tongue of said switch, showing a pin placed therein, to be hereinafter described. This view is taken through the line III III of Fig. II. Fig. IV is a detail side view of the part attached to the dashboard. Figs. V, VI, and VII are views to show how the shoe carried on a rod attached to the car engages the pin in the tongue of the switch. Figs. VIII and IX are views to show how the rod carrying the shoe may be turned in its housing.

1 is the tongue of any ordinary split switch. 2 shows a hole cut vertically nearly through said tongue to provide a socket.

3 is a pin placed in hole 2, adapted to work therein, and which is kept above the level of the rail by means of the spring 5, said spring resting on the bottom of the hole 2. The pin 3 has a vertical slot, through which is passed a bolt or screw 4, and which serves to keep the pin 3 in place.

6 is a rod passing through a suitable housing 7, attached to the dashboard of the car. This rod extends up to the top of the dash and down nearly to the rail. It is kept in the desired position by means of the coil-spring 8, said spring resting in the bottom of the housing and bearing on a ferrule 10', carried on the rod 6. The housing 7 is provided with an upright slot having recesses 9 9' on

opposite sides thereof. 10 is a pin carried on the rod 6, adapted to engage in the said recesses 9 9'. The spring 8 keeps the rod 6 elevated; but when pressed down and turned to one side or the other the pin 10 slips into recess 9 or 9' and remains there until removed, as hereinafter described.

11 is a shoe carried on the lower end of the rod 6 by means of a telescope-joint.

12 is a set-screw to hold the same in place and to adjust it to any desired height.

The operation of my device is as follows: The pin 3 in the switch-tongue is ordinarily elevated and a passing car-wheel will depress it without any resulting jarring to the car. If, however, it is desired to turn the switch, the motorman, by means of the handle on the top of the rod 6, presses the shoe 11 down, so that it is below the line of the top of the pin 3, said shoe being set at an angle, as shown in Figs. I, V, VI, and VIII. The toe of this shoe will now strike the pin 3, Fig. V. As the car advances, the shoe will carry this pin over to the opposite side, Fig. VI, and with it the switch-tongue, thus turning the switch. The heel of the shoe 11 extends back of the line of the rod 6, so that when the car has advanced far enough to bring the pin 3 in contact with said heel the shoe will be turned in a line parallel with the tracks and the pin 10, which till now has been in the position shown in Fig. VIII, will be turned into the position shown in Fig. IX. This disengages said pin from the recess 9, and the spring 8 will cause the rod 6 and shoe 11 to be raised above the level of the pin 3. It is obvious that the shoe 11 may be turned either to the right or to the left, as desired, in order to throw the switch in either direction. The distance from the pin 3 and the point of the switch-tongue must necessarily be less than the distance between the shoe 11 and the first car-wheel. The switch is thus turned to the full extent before the car-wheel strikes the movable section.

My device enables the motorman to turn the switch without stopping the car, as is necessary in the usual method of inserting a wedge-bar. By setting the shoe 11 before reaching the switch, so as to turn the tongue to the right or left, as required, the forward movement of the car itself automatically

causes the displacement. The shoe, as described, will spring back into place after the switch is passed ready for readjustment when the next switch is reached.

5 I claim as my invention—

The combination of a switch, having a pin on its upper face, a vertically movable spring actuated rod secured to the dash board, and a shoe carried on the lower end of said rod

and adapted to engage said pin to move the rod switch, and having a heel extending back of the line of the said rod, whereby the said rod is turned by the said switch pin and thrown back into place, substantially as described.

JNO. A. DE VILBISS.

In presence of—

WILLIAM H. GOVERT,
NEVEDA S. PROCTOR.