

M. W. DAVISON.
 SWITCH OPERATING DEVICE.
 APPLICATION FILED OCT. 22, 1910.

1,011,039.

Patented Dec. 5, 1911.

2 SHEETS—SHEET 1.

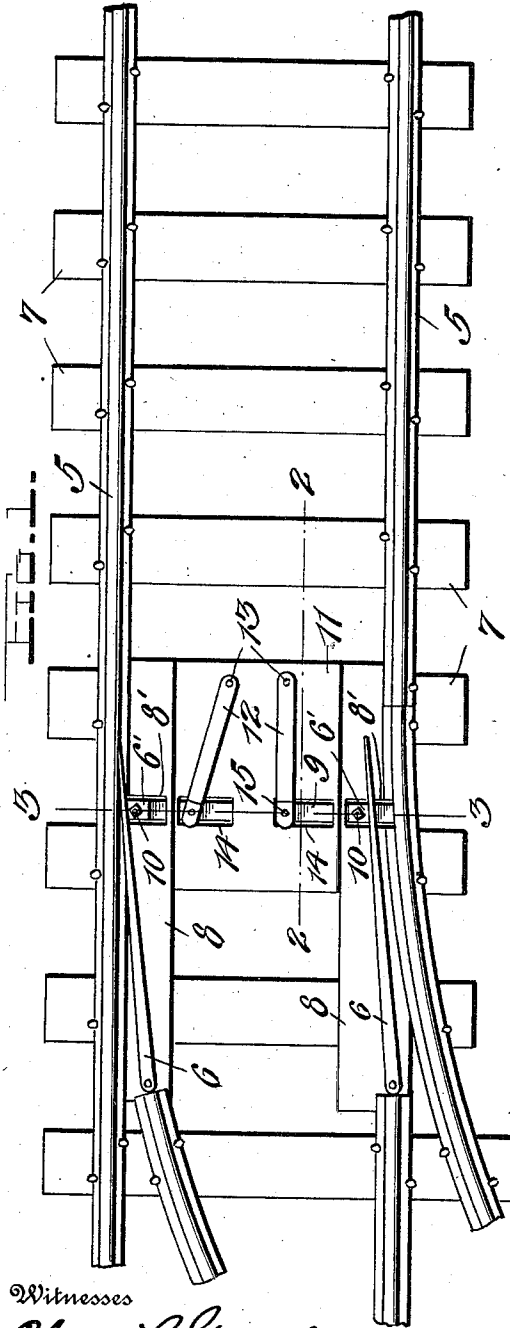
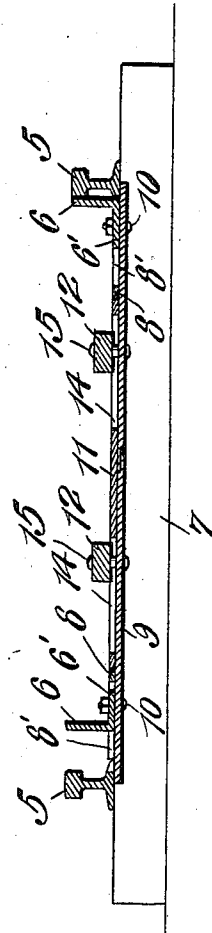


FIG. 1.



Witnesses

Chas. L. Griebauer.
 H. L. McQuay.

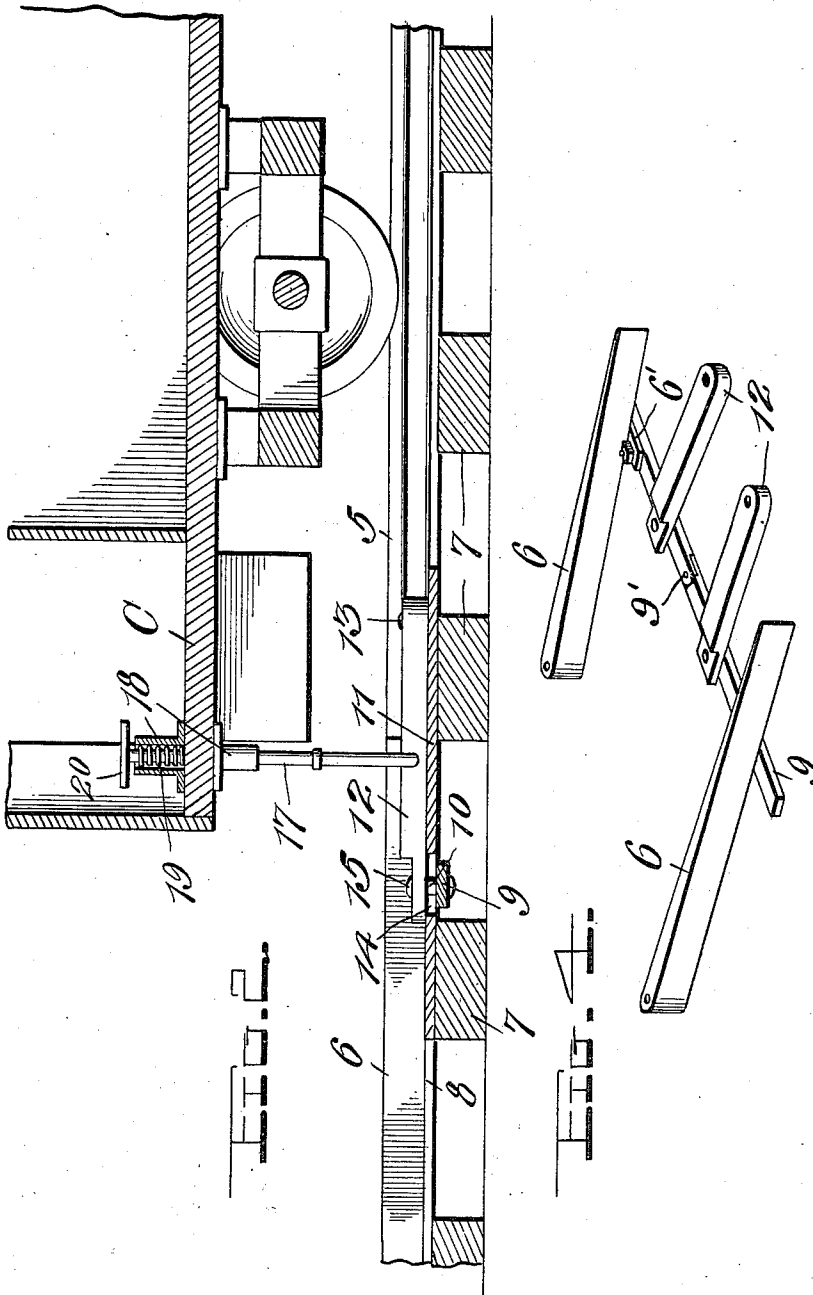
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UNITED STATES PATENT OFFICE.

MATTHEW W. DAVISON, OF DUBOIS, PENNSYLVANIA.

SWITCH-OPERATING DEVICE.

1,011,039.

Specification of Letters Patent.

Patented Dec. 5, 1911.

Application filed October 22, 1910. Serial No. 588,547.

To all whom it may concern:

Be it known that I, MATTHEW W. DAVISON, a citizen of the United States, residing at Dubois, in the county of Clearfield and State of Pennsylvania, have invented certain new and useful Improvements in Switch-Operating Devices, of which the following is a specification, reference being had to the accompanying drawings.

10 This invention relates to switch operating devices and has for its object to provide a very simple device which is especially devised for use on street railways whereby the switches may be opened or closed from the platform of the car by the motorman.

15 Another object of the invention resides in the provision of movable means arranged between the track rails and connected to the switch points, said means being adapted for actuation by means arranged on the car and operated by the motorman whereby the switch may be opened or closed.

20 With the above and other objects in view, the invention consists of the novel features of construction, combination and arrangement of parts hereinafter fully described and claimed, and illustrated in the accompanying drawings, in which—

25 Figure 1 is a plan view of a switch provided with my improved throwing mechanism; Fig. 2 is a section taken on the line 2—2 of Fig. 1 showing actuating means carried by the car about to throw the switch points; Fig. 3 is a section taken on the line 35 3—3 of Fig. 1; and Fig. 4 is a detail perspective view of the switch points, the connecting bar, and the pivoted throwing bars.

Referring more particularly to the drawings 5 designates the track rails and 6 the switch points which are arranged in the track in the usual manner. These rails and switch points are mounted upon ties 7 or may be supported in any other desired manner.

45 As shown in the drawing the switch is open so that the car will move over the side track rails. A bed plate 8 is arranged upon the rail ties inside of each of the rails and over these bed plates the switch points are adapted to move. Each of the switch points is formed with an ear 6' to which the ends of the connecting bar 9 are pivotally connected as indicated at 10, said connecting bar extending beneath openings 55 8' formed in the bed plates 8. A base plate

11 is secured upon the rail supporting ties between the switch points and upon this base plate the throwing bars 12 are pivoted, at one of their ends as shown at 13. The other ends of these bars are movable over 60 the openings 14 in the base plate and bolts 15 extend through these openings and pivotally connect the bars 12 with the connecting bar 9 which connects the switch points 6. The bar 9 which connects the switch 65 points is formed in two sections which are pivotally connected at their inner ends as indicated at 9'. Thus in the pivotal movement of the bars 12 the sections of the connecting bar 9 will have a slight relative 70 movement.

Upon each end of the platform of the car C, the vertically movable actuating rods 17 are mounted. These rods move in the sleeves 18 secured above and below the platform and have coiled springs 19, arranged 75 thereon which normally act to force the rods upwardly. Upon the upper ends of the rods the foot plates 20 are secured which are adapted to be engaged by the foot of 80 the motorman to depress the rods.

In the operation of the device, when the switch is open as shown in Fig. 1, the motorman depresses the proper rod so that it will engage one edge of one of the throwing bars 85 12 and force said bar transversely between the rails, thus also throwing the switch points through the medium of the bar 9 which connects the same. In this manner the switch may be closed without requiring 90 the motorman to dismount from the car so that the car will pass over the switch rails. In order to open the switch the other of the rods 17 is depressed and the switch points moved in the opposite direction. 95

From the above it will be seen that the device may be easily and quickly operated and considerable time saved in the throwing of the switches. The device is comparatively simple and very efficient in practical operation. It may be readily installed 100 in the present system of railway construction at small cost.

While I have above described the preferred construction and arrangement of the various parts, it will be understood that the device is susceptible of considerable modification without departing from the essential feature or sacrificing any of the advantages thereof. 105 110

Having thus described the invention what is claimed is:—

In combination with the fixed rollers and movable pivoted switch points of a railway switch, said switch points being provided at their bases with laterally extending horizontal ears, bed plates on which the switch points operate and provided with openings to receive the ears of the switch points and in which said ears move, a base plate between the bed plates and also having openings in line with those of the base plates, a bar pivotally connected to the under side of the ears of the switch points,

and formed in two sections pivotally connected together, and throw bars each pivotally connected at one end of the bed plate and having its opposite end pivotally connected to one of the sections of said bar at a point from one of the openings of the bed plate. 15 20

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

MATTHEW W. DAVISON.

Witnesses:

JOHN J. BUGGY,
PATRICK WALTERS.

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