(No Model.)

J. M. DIXON.

AUTOMATIC RAILWAY SWITCH.

No. 528,533. Patented Nov. 6, 1894.

Fig. 1.

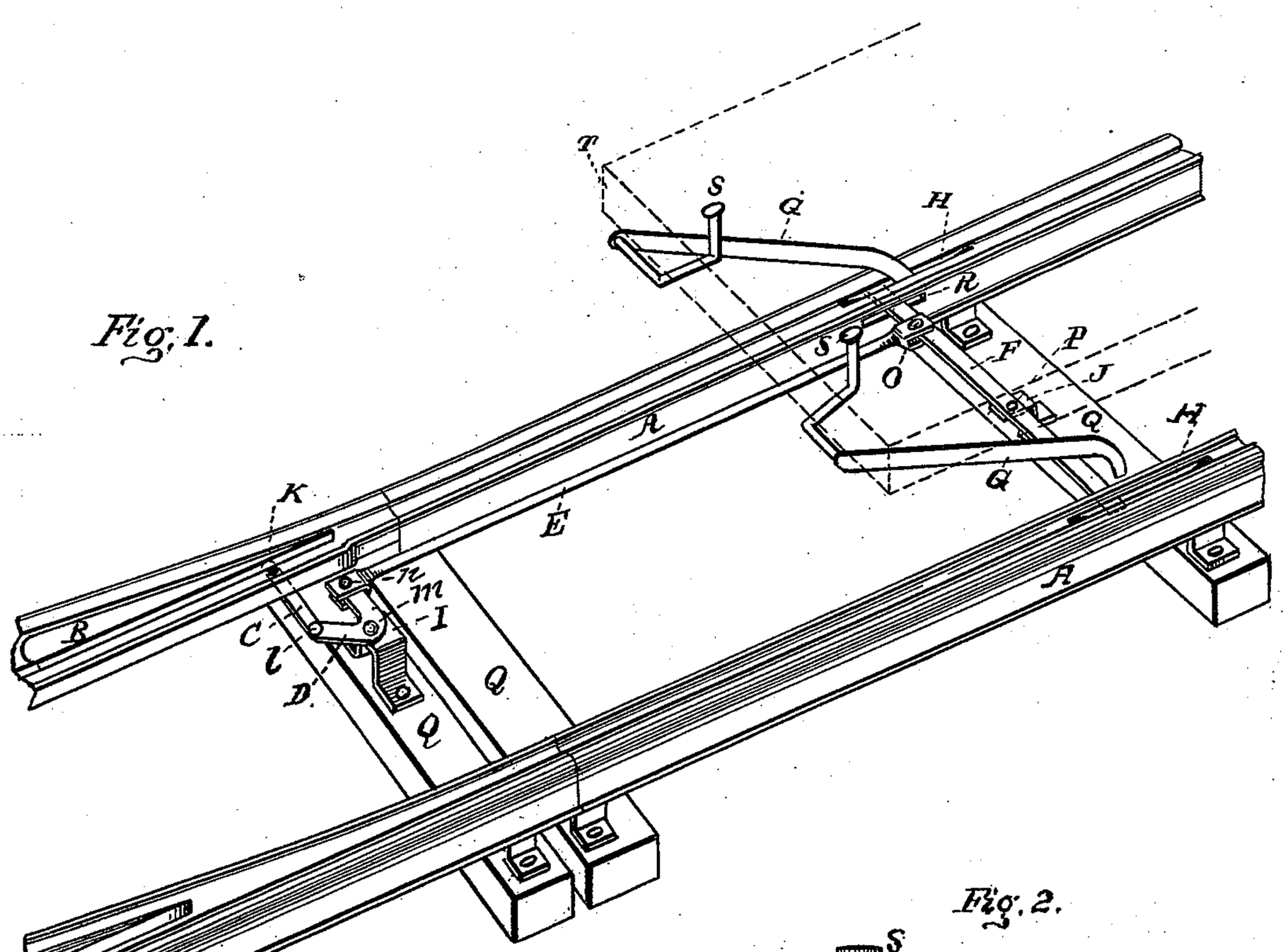


Fig. 2.

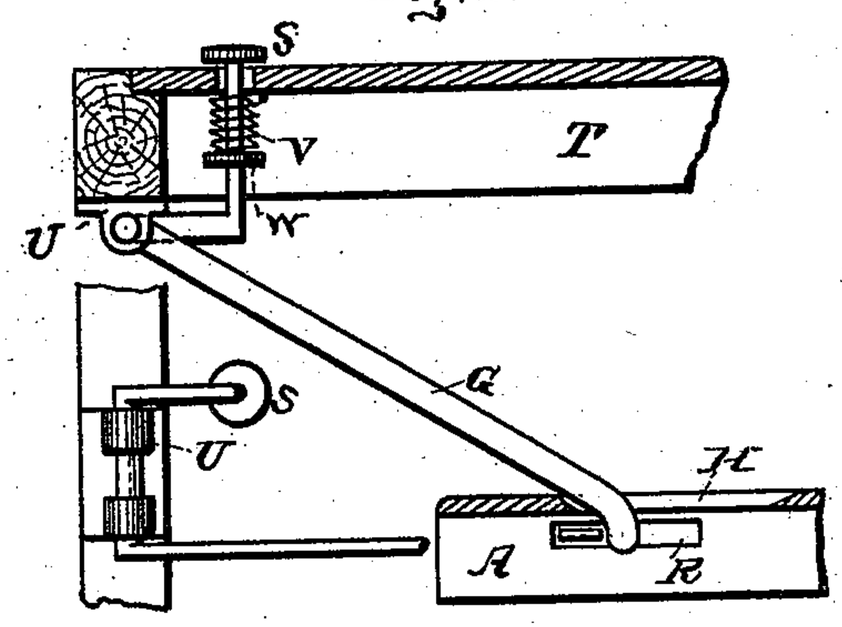


Fig. 4.

Fig. 5

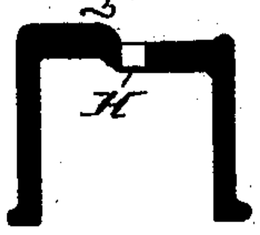


Fig. 6.

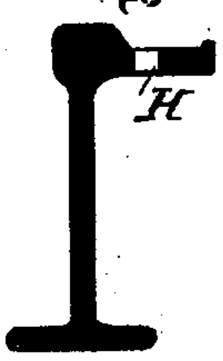
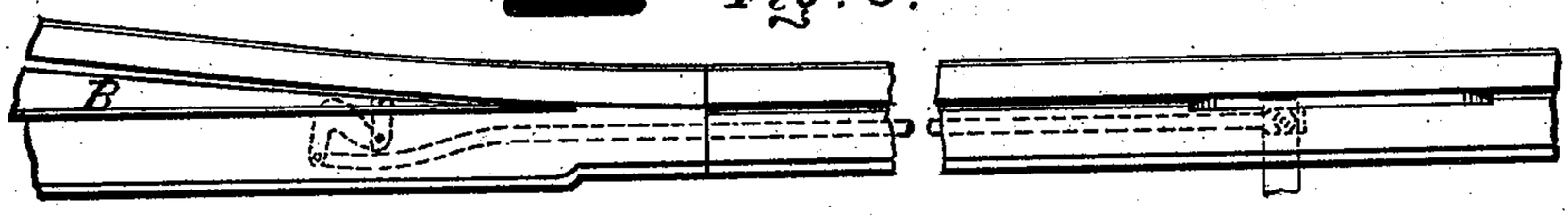


Fig. 3.



Witnesses:
J. Watt Wagner.
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Joseph M. Dixon Inventor:
By his Attorney Augustus M. Ner.

UNITED STATES PATENT OFFICE.

JOSEPH M. DIXON, OF BROOKLYN, NEW YORK, ASSIGNOR OF ONE-HALF TO ARTHUR S. FRENCH, OF SAME PLACE.

AUTOMATIC RAILWAY-SWITCH.

SPECIFICATION forming part of Letters Patent No. 528,533, dated November 6, 1894.

Application filed October 11, 1893. Serial No. 487,901. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH M. DIXON, a citizen of the United States, and a resident of Brooklyn, county of Kings, State of New York, have invented a new and useful Improvement in Automatic Railway-Switches, whereby the switch can be operated by the driver or motorman from the platform of the car while the car or cars are in motion, of which the following is a specification, reference being had to the accompanying drawings, the same forming a part of this specification.

Figure 1 represents a view in perspective of a section of railway near the switch showing the application of my invention thereto, the switch being closed. Fig. 2 represents two views of the operating foot levers attached to the front of a street car platform, one a section through frame work and floor of the platform, showing the foot levers in slot and the other view showing the method of attaching the levers to the bottom of the frame. Fig. 3 is a top view of a rail showing modification of my invention as applied to the under side or within inclosure of a rail adapted to same. Figs. 4, 5, and 6 are cross sections of several forms of rails among others to which my invention may be applied.

Similar letters refer to similar parts of the mechanism of my invention in the several figures of the drawings.

The object of my invention is to provide a means of opening and closing street-railway switches by the motorman or driver while the car is in motion without the intervention or assistance of a switchman. This operation is accomplished by the driver or motorman pressing his foot on the boss S, formed on the upper end of the foot lever G, that passes up through the car platform T under which the crank swivel end of the foot lever is hinged in the bearings U. This action on the part of the operator causes the lower end of the foot-lever G to press downward on the surface of the track A and to fall in the longitudinal slot H, when the car has moved forward the required distance to the entrance of said slot. When the foot lever strikes on the swing bar F, at its extreme end and pushes said swing bar forward causing the connecting rod E, to move forward the end of the same and operate the bell-crank, D, to which it is connected by a loose joint *n*, the bell crank then partially revolves on its bearing, *m*, and pulls the connecting-link C, to which it is swiveled at *l*, to pull the switch open, the other end of the connecting link being pivoted to the under side of the said switch at K, at its forward end, the other end of the switch being pivoted to the track in the usual manner.

The operation of closing the switch is performed by the driver or motorman by his pressing the boss end of the foot lever on the opposite side of the platform from the foot lever to open the switch, the ends of the swing bar F, being extended under the surface of the track or through slots R in sides of the same and being so arranged that when one car has passed and opened the switch the car following wishing the switch closed can do so by depressing the foot lever on the opposite side in the slot and move the swing bar so that it will reverse the action of the mechanism for the desired purpose, the swing bar being pivoted to the tie Q in the center on any appropriate bracket J, by a bolt P. When the operator has moved the switch he releases his foot from the boss, and the foot lever is restored to its normal position by means of any suitable spring V, attached to the car platform and the foot lever so as to throw the said lever up from the slot and track. To facilitate this operation I incline the upper surface of the ends of the slot as shown.

The mechanism of that part of my invention that operates and is connected to switch direct, can be placed under the surface in any manner suitable to the kind or form of track used, or pavement used to protect same, having suitable iron hand hole covers to allow access to those parts requiring same.

The modification of my invention as shown in Fig. 3, is particularly adapted to the use of switches required on tracks such as are shown in Figs. 5 and 6. This modification which relates only to the position of that part of the mechanism included in the connecting rod E, the bell crank, D, the arrangement of the swing or connecting-link C, and the end of the switch to be moved.

Having thus described my invention, what

I claim as new and desire to secure by Letters Patent, is—

In a railway switch, the pivoted swing bar reaching under the surfaces of the rails at both ends, the bell crank connected with the switch, the rod uniting the bell crank and swing bar, the rails provided with narrow parallel sided slots, said swing bar being adapted to be actuated by rearwardly inclining foot levers mounted upon the cars and arranged to be pressed down through the slots in the rails, the parts being combined and arranged for operation, substantially as shown and described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of two witnesses, this 6th day of October, 1893.

JOSEPH M. DIXON.

Witnesses:
THOS. H. TROY,
RICHD. A. WHITE.