(No Model.)

H. H. OLDS.

STREET RAILWAY SWITCH.

No. 457,404. Patented Aug. 11, 1891.

FIG. 1.

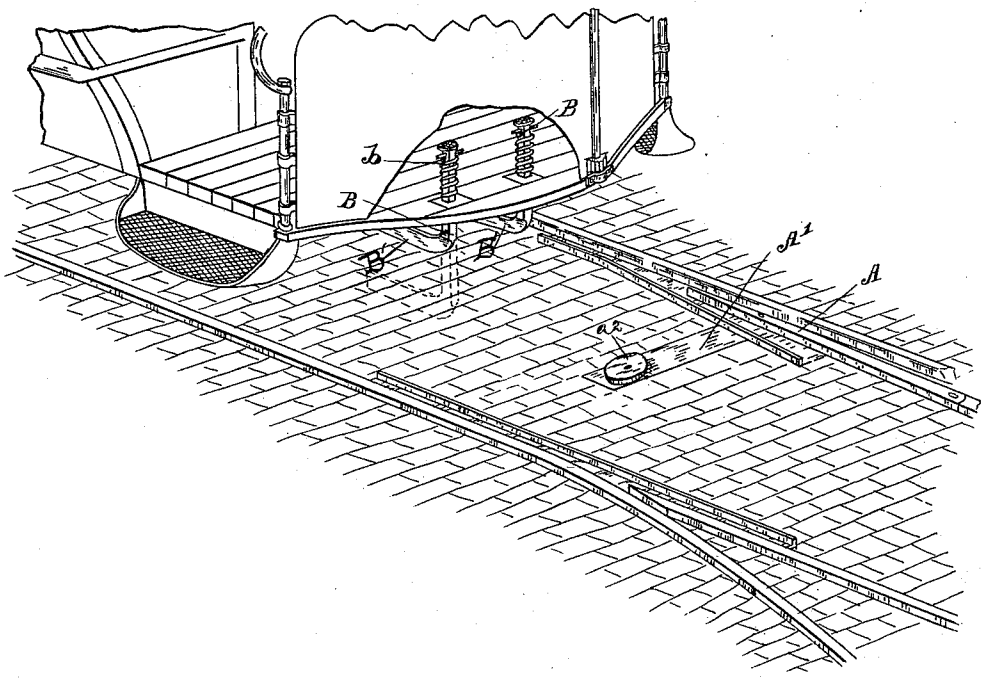
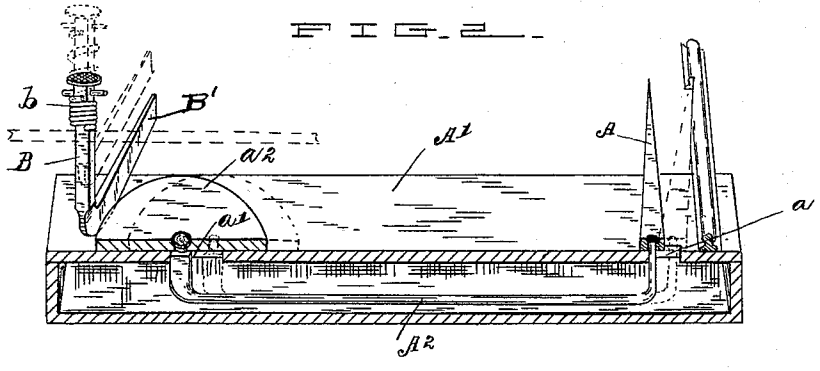


FIG. 2.



WITNESSES.

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HENRY H. OLDS, OF INDIANAPOLIS, ASSIGNOR OF ONE-HALF TO SETH MATTHEWS, OF MOORESVILLE, INDIANA.

STREET-RAILWAY SWITCH.

SPECIFICATION forming part of Letters Patent No. 457,404, dated August 11, 1891.

Application filed March 24, 1891. Serial No. 386,195. (No model.)

To all whom it may concern:

Be it known that I, HENRY H. OLDS, a citizen of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented certain new and useful Improvements in Street-Railway Switches, of which the following is a specification.

The object of my said invention is to provide a simple and inexpensive arrangement of devices for operating the switches of street-railways by the force and motion of the car itself, as will be hereinafter more particularly described and claimed.

Referring to the accompanying drawings, which are made a part hereof, and on which similar letters of reference indicate similar parts, Figure 1 is a perspective view of a portion of track, showing the switch, and also a portion of the front end of a car provided with the devices for throwing said switch; and Fig. 2 is a section through the box or casing which incloses the mechanism beneath the surface of the street, showing the parts beyond in perspective, with the operating device on the car in the position it occupies just as it begins to move the switch, the other position of the several parts being indicated by dotted lines.

In said drawings, the portions marked A represent the switch, and B the operating device on the car. The switch A and the track arrangement of which it forms a part is of the usual or any suitable construction. Near the point of said switch a casing A′ is set into the pavement or street so that its top will be substantially flush therewith, and extends at right angles with the line of track to a position a little more than half-way to the opposite rail. In its top surface is formed a slot *a*, extending longitudinally thereof at a point directly under the switch, and a similar slot *a′* is formed in its top at that point, which will be substantially midway between the rails of the track. A rod A^2 extends longitudinally within said casing, being formed with its ends bent up, one extending through the slot *a* and connected with the switch and the other through the slot *a′*, and having an anti-friction wheel or bearing-plate a^2, which is mounted on its top, preferably to revolve thereon, to more effectually lessen the friction between the parts; but it may be rigid, as will be readily understood.

The operating device B consists of a bar mounted in a vertical way or socket set into the car-platform a short distance each side of its center, its lower end being bent back by a curved quarter-turn and formed into a flat plate or arm B′, which extends back in a horizontal plane and at an angle. One of these devices is mounted on each side of the center of the platform and the arms B′ converge rearwardly toward each other at an angle sufficient to throw the switch the desired distance back and forth. Said arms B′ are also formed so as to be capable of slight lateral spring to avoid the liability of breaking the parts. A coiled spring *b* is mounted around the vertical portion of each bar above the floor of the platform, which normally holds the arms to a position close to the under surface of the platform.

The operation of my invention is as follows: It being desired to throw the switch from the position it occupies to its other position, the approaching car being equipped with the devices B, the driver forces the device on that side necessary to throw the switch in the desired direction down until the horizontal arm is in position to strike the edge of the wheel or bearing-plate a^2, which arm, by reason of its angle, in passing along operates to force said wheel to one side, this being permitted by the slots, and thus through the connecting-rod A^2 operates to throw the switch.

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

1. The combination of the switch A, forming part of a street-railway system, the connecting-rod A^2, joined to said switch at one end and extending to a point between the rails at its other end, which is provided with a bearing-plate, said connecting-rod being mounted to move in a direction transversely of the track, and a pair of operating devices B, having the spring-arms B′, mounted on the forward end of the car and extending back at an angle toward each other, one of said arms being so located as to strike said bearing-plate upon one side and move it in one direction as the car passes over, and the other of

said arms being arranged to strike said plate upon the other side and move it in the other direction when desired, substantially as set forth.

2. The combination of the switch A, forming part of a street-railway, the casing A′, extending from beneath said switch to a point between the rails of the track and formed with slots in its top, the connecting-rod A^2, extending within said casing with its ends bent up and extending through said slots, one end to engage with the switch and the other end provided with an anti-friction wheel, and a device on the front of a car arranged with its forward end in position to strike said wheel and extending back at an angle sufficient to force said wheel to one side and throw the switch, substantially as set forth.

In witness whereof I have hereunto set my hand and seal, at Indianapolis, Indiana, this 19th day of March, A. D. 1891.

HENRY H. OLDS. [L. S.]

Witnesses:
E. W. BRADFORD,
FRANK W. WOOD.