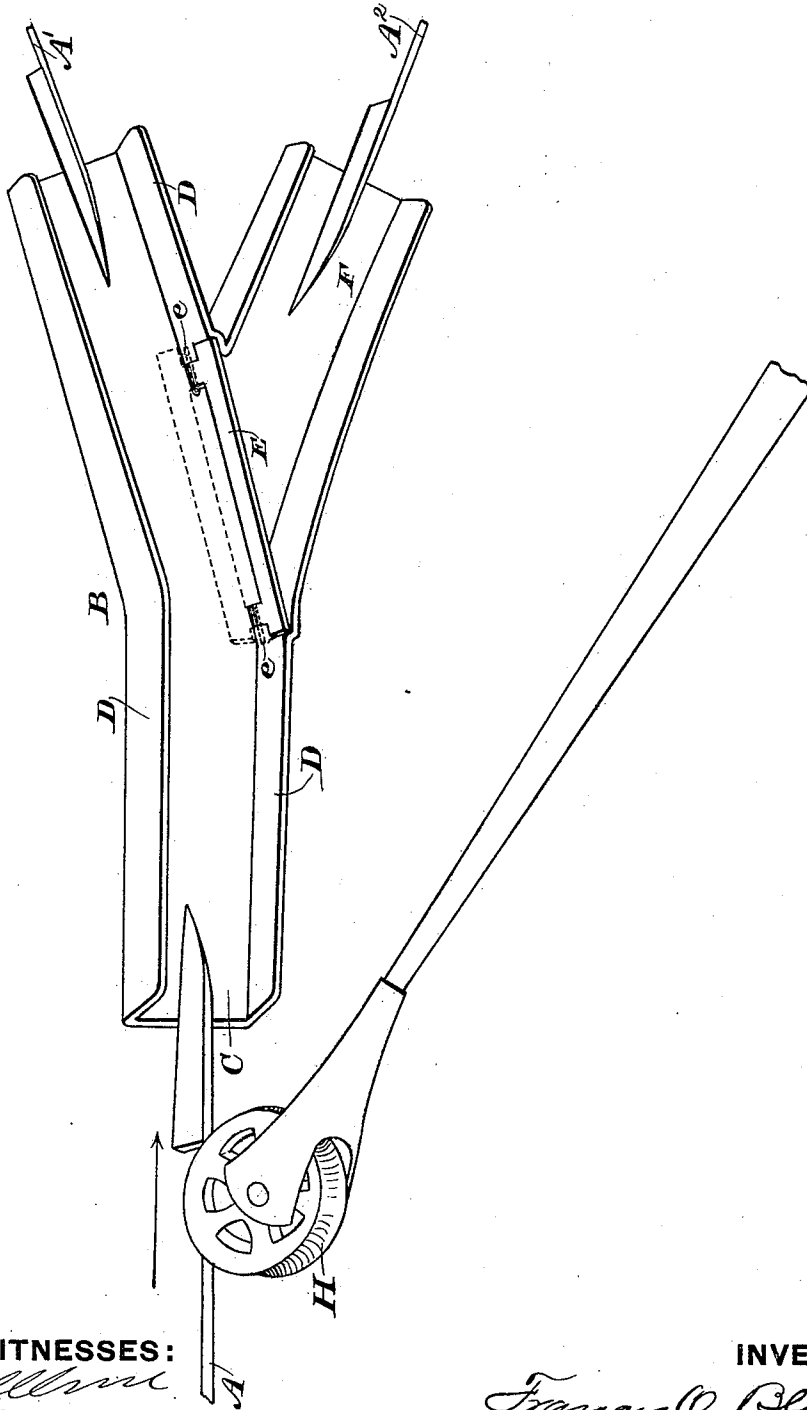


(No Model.)

F. O. BLACKWELL.
SWITCH FOR ELECTRIC RAILWAYS.

No. 463,766.

Patented Nov. 24, 1891.



WITNESSES:

William
Rawson

INVENTOR:

Francis O. Blackwell
by Bentley Knight
ATTYS.

UNITED STATES PATENT OFFICE.

FRANCIS O. BLACKWELL, OF BOSTON, MASSACHUSETTS, ASSIGNOR TO THE THOMSON-HOUSTON ELECTRIC COMPANY, OF CONNECTICUT.

SWITCH FOR ELECTRIC RAILWAYS.

SPECIFICATION forming part of Letters Patent No. 463,766, dated November 24, 1891.

Application filed January 26, 1891. Serial No. 379,093. (No model.)

To all whom it may concern:

Be it known that I, FRANCIS O. BLACKWELL, a citizen of the United States, residing at Boston, in the county of Suffolk and State of Massachusetts, have invented a certain new and useful Improvement in Switches for Electric Railways, of which the following is a specification.

My invention relates to an improved switching device for guiding the contact-trolley in its passage along the main and branch conductors of an electric railway, and it is adapted particularly for use with conductors suspended over the car and engaged by an underrunning trolley.

Briefly stated, it consists in a folding switch section or gate, which normally stands in a position guiding the trolley along the main line, but may be turned down, allowing the trolley to ride over it when coming out of the branch line.

The accompanying drawing is a perspective view showing this invention.

A A^1 A^2 are the main and branch conductors, which come together in the usual manner at a switch, and are attached to what is commonly known as a "switch-box" B, consisting of a horizontal extension-plate C and side ribs D, so arranged as to form branching ways for the guidance of the trolley. A folding switch section or gate E is suspended from the plate by pivots e , extending lengthwise of the gate, so that normally gravity tends to hold the switch in a position closing the way F, assumed herein to be that leading to the branch line. When now the trolley H is traveling in the direction of the arrow, the branchway F is closed and the trolley guided past it continues along the main line. When, on the other hand, the trolley is coming out of the branch line, traveling along conductors A^2 in the opposite direction to that already assumed, it strikes against the gate, folding it over flatwise into the dotted-line position, when it runs over it and passes out along the main. The gate will then automatically swing back to its normal position, and if gravity be in-

sufficient to hold it in place, a weak spring may be inserted in the hinge to assist this action. The gate, however, can swing only to the side indicated, for the ribs constitute stops preventing movement in the other direction.

This form of switch is simple in construction and reduces to a minimum the liability of the trolley-wheel getting caught in the switch-box, as there are no projections either on the switch or at the angle between the branching ways on which the wheel may strike.

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

1. The combination, with main and branch conductors of an electric railway, of a folding switch or gate pivoted so as to fold down flatwise in the path of travel of the trolley, thereby allowing the trolley to pass over it, as set forth.

2. The combination of main and branch conductors of an electric railway connected at the branching point by an extension-plate having a plane surface for the trolley to engage, of a folding switch or gate for directing the trolley pivoted and swinging on an axis substantially parallel with the longitudinal axis of the gate, as set forth.

3. The combination, with main and branch conductors of an electric railway, of an extension-plate provided with ribs forming branching ways for the trolley, and a folding switch or gate normally closing one of said ways and pivoted on an axis substantially parallel with the axis of the gate, as described.

4. A switch for electric railways, comprising a plate or box having ribs forming branching ways, and a gate or switch normally closing one of said ways and pivoted to the plate at its upper end on a pivot substantially parallel with the longitudinal axis of the gate, whereby the gate may be folded down flat against the plate, as set forth.

5. The combination of main and branch conductors of an electric railway and an extension-piece provided with ribs forming

branching ways for the trolley at the switching-point, with a switch or gate suspended from the extension-piece by a longitudinal pivot, whereby gravity tends to maintain the
5 gate in a position closing one of said ways, said gate swinging freely from its normal position in a direction permitting the passage of the trolley from out the closed way, but

held against movement in the opposite direction, as set forth. 10

In testimony whereof I have hereto set my hand this 19th day of January, 1891.

FRANCIS O. BLACKWELL.

Witnesses:

E. L. RAWSON,

GEO. R. BLODGETT.