

(No Model )

J. A. & W. H. MOUNCE.  
AUTOMATIC SWITCH.

No. 582,538.

Patented May 11, 1897.

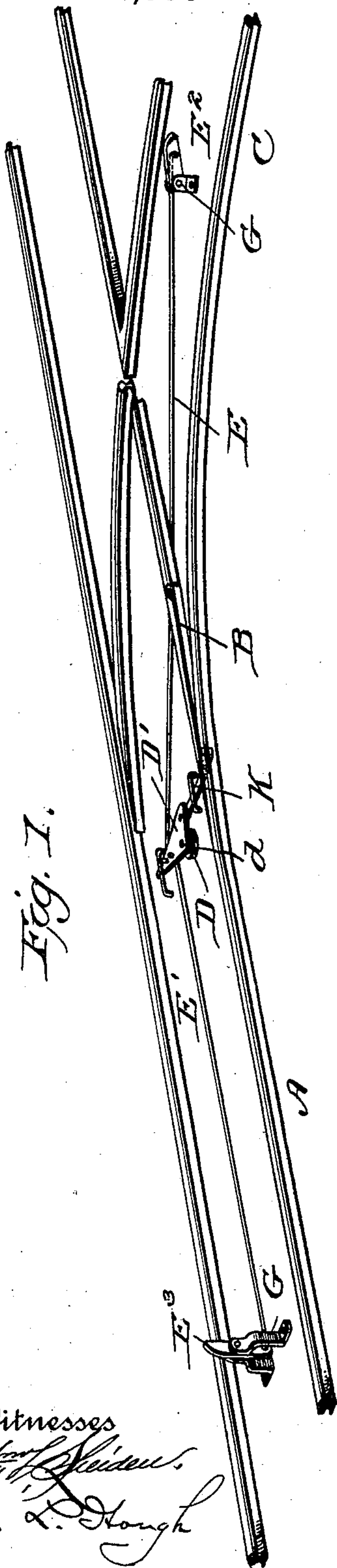
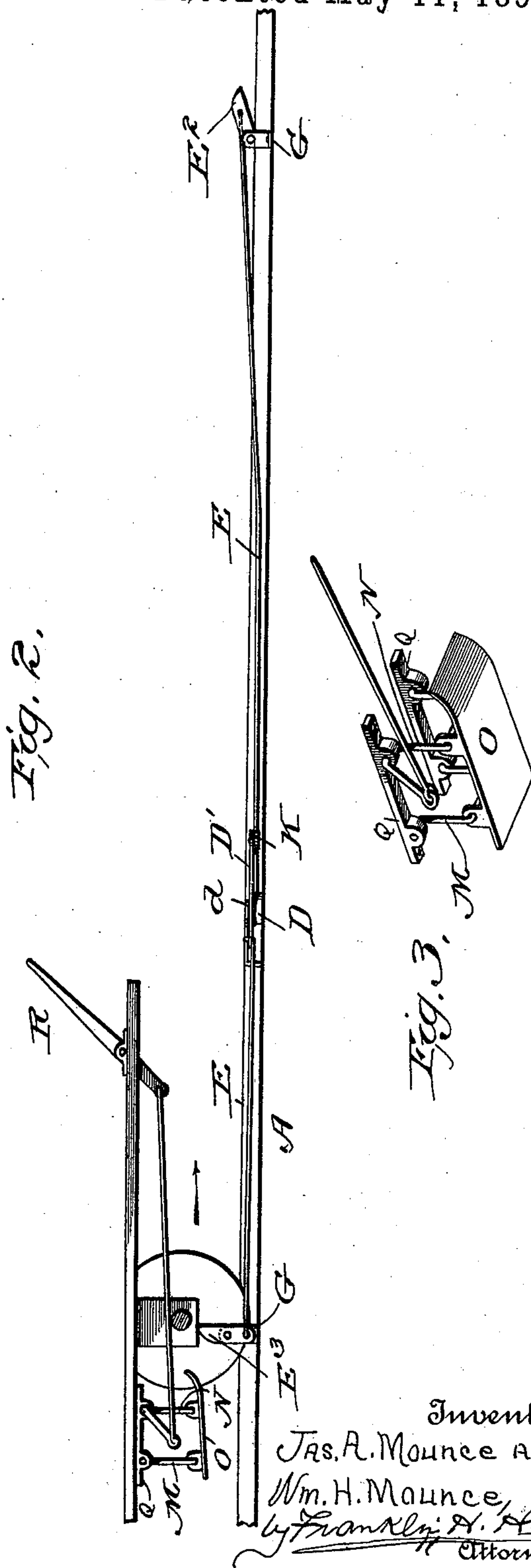


Fig. 1.



2. big. 2.

Fig. 3.

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# UNITED STATES PATENT OFFICE.

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## AUTOMATIC SWITCH.

SPECIFICATION forming part of Letters Patent No. 582,538, dated May 11, 1897.

Application filed January 8, 1897. Serial No. 618,495. (No model.)

*To all whom it may concern:*

Be it known that we, JAMES ANDREW MOUNCE and WILLIAM HENRY MOUNCE, citizens of the United States, residing at Fredericktown, in the county of Madison and State of Missouri, have invented certain new and useful Improvements in Automatic Switches; and we do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to certain new and useful improvements in switches, and especially to an automatically-operated switch designed for use in connection with street-railways, whereby the switch is thrown by a hand-operated mechanism connected with the car without the necessity of the car stopping.

A further and important part of the invention consists in the equipment of the motor-car with a plate which is set preferably at an angle to the tracks and connected with a lever by which the said plate may be thrown so as to engage with tripping-levers connected with the switch-rails to effect an opening or closing of the frog-rails, as may be desired.

To these ends and to such others as the invention may relate the same consists, further, in the novel construction, combination, and adaptation of parts, as will be hereinafter more fully described, and then specifically defined in the appended claims.

We clearly illustrate our invention in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this specification, and in which drawings similar letters of reference indicate like parts throughout the several views, in which—

Figure 1 is a perspective view of a switch-point rail, showing connected therewith the tripping mechanism. Fig. 2 is a plan view of the under side of a car carrying the plate which is adapted to strike the trip-levers as the car moves over the latter. Fig. 3 is a view in detail of parts upon the under surface of the car.

Reference being had to the details of the

drawings by letter, A designates the main-track rails, and B a pivoted frog-rail, and C the side-tracks. Pivoted on a plate D between the main-track rails is an angular plate D', which is pivoted at one of its angles, as seen at *d*. At another of its angles are secured the rods E and E', which are connected to the trip-levers E<sup>2</sup> and E<sup>3</sup>, respectively, which trip-levers are pivoted between the plates G, secured between the rails. Attached to the third angle of the plate is a connecting-link K, which has its other end attached to the frog-rail B.

From the foregoing description, in connection with the accompanying drawings, it will be seen that when a car approaches on the main track traveling in the direction indicated by the arrow, when the trip-lever is in a perpendicular position, by tilting the said trip-lever the frog B is drawn inward, allowing the car to pass upon the siding. After the car has passed onto the side rails the switch-lever carried by the car strikes the trip-lever E<sup>2</sup>, which, through its connection with the angle-plate D and the frog B, causes the latter to be drawn back against the main-track rail, thus closing the switch.

Mounted in the brackets Q on the under side of the car are the pivoted hangers M and N, pivoted to the plate O, which is disposed at an angle to the platform of the car and is adapted to be raised backward and forward and raised in a vertical direction by means of the lever R and its connection with the forward of the two hangers. The inclination of the said plate is produced by mounting the forward end of the same on the hanger N, which is shorter than the hanger M, this being provided to prevent the plate's catching against an obstruction other than the tripping-levers.

When it is desired to switch the car, the operator manipulates the hand-lever on the platform of the car in such a direction as to cause the pivoted plate on the under side of the car to be lowered or raised in order to contact with the tripping-lever or not, as it may be desired.

Having thus described our invention, what we claim to be new, and desire to secure by Letters Patent, is—



1. In an automatic switch, the combination  
with the trip-lever  $E^3$  pivoted between the  
brackets G, the plate D, having pivoted there-  
to the angle-plate  $D'$ , the rod  $E'$ , connected to  
5 said angle-plate, with the lower end of the  
trip-lever  $E^3$ , of the rod K connecting an angle  
of the said plate  $D'$  with the switch-rail B,  
the guide-brackets for the said rod K and  
angle-plate, the lever  $E^2$  pivoted at its lower  
10 end to the brackets G, and the rod E secured  
at one end to an angle of the plate  $D'$ , its  
other end pivoted to the upper end of the  
trip-lever  $E^2$ , substantially as shown and de-  
scribed.

15 2. In combination with the floor of a car,

the hangers M and N, of unequal lengths, piv-  
oted to brackets on the under surface of the  
said floor, one of the said hangers as N, hav-  
ing formed integral therewith an arm, to  
which the operating-lever is connected, the 20  
shoe O, mounted on the said hangers at an  
angle, with its forward end upwardly turned,  
all substantially as shown and described.

In testimony whereof we affix our signa-  
tures in presence of two witnesses.

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WILLIAM HENRY MOUNCE.

Witnesses:

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