

(No Model.)

J. JONES.

TROLLEY SWITCH FOR ELECTRIC RAILWAYS.

No. 443,081.

Patented Dec. 16, 1890.

Fig. 1.

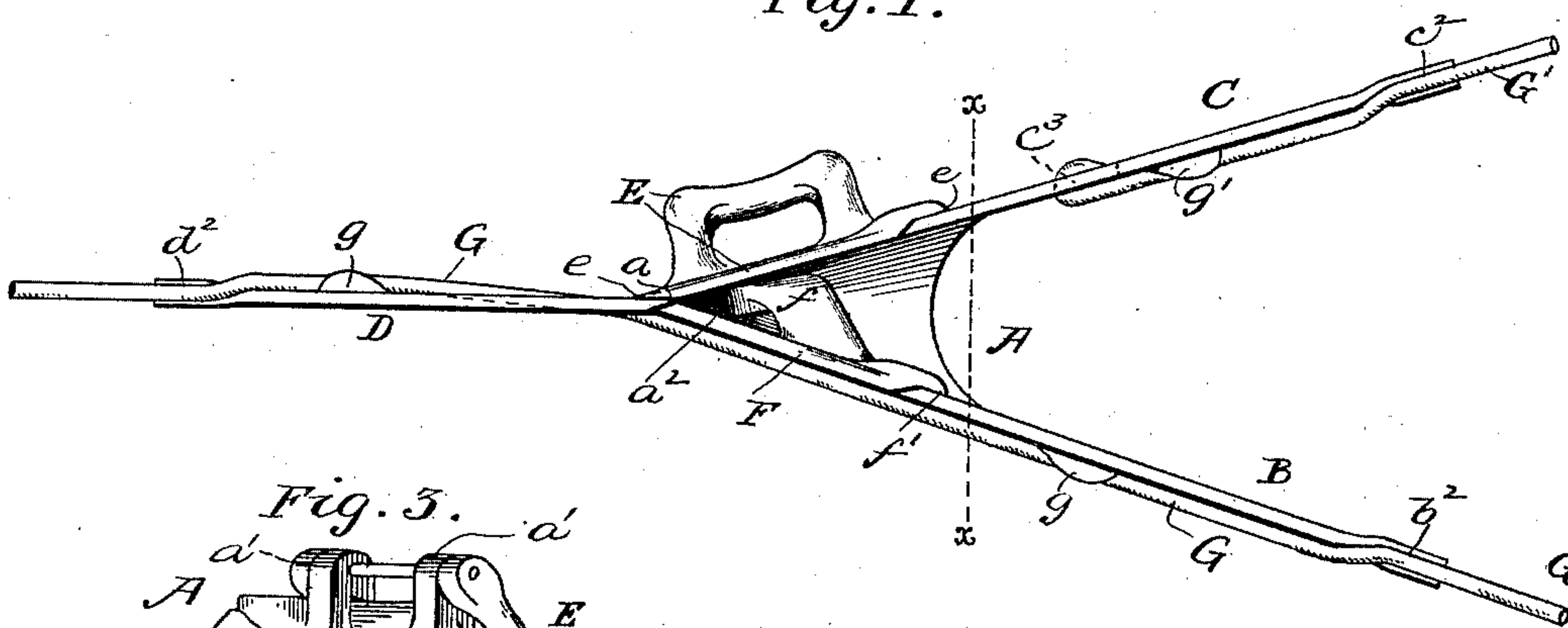


Fig. 3.

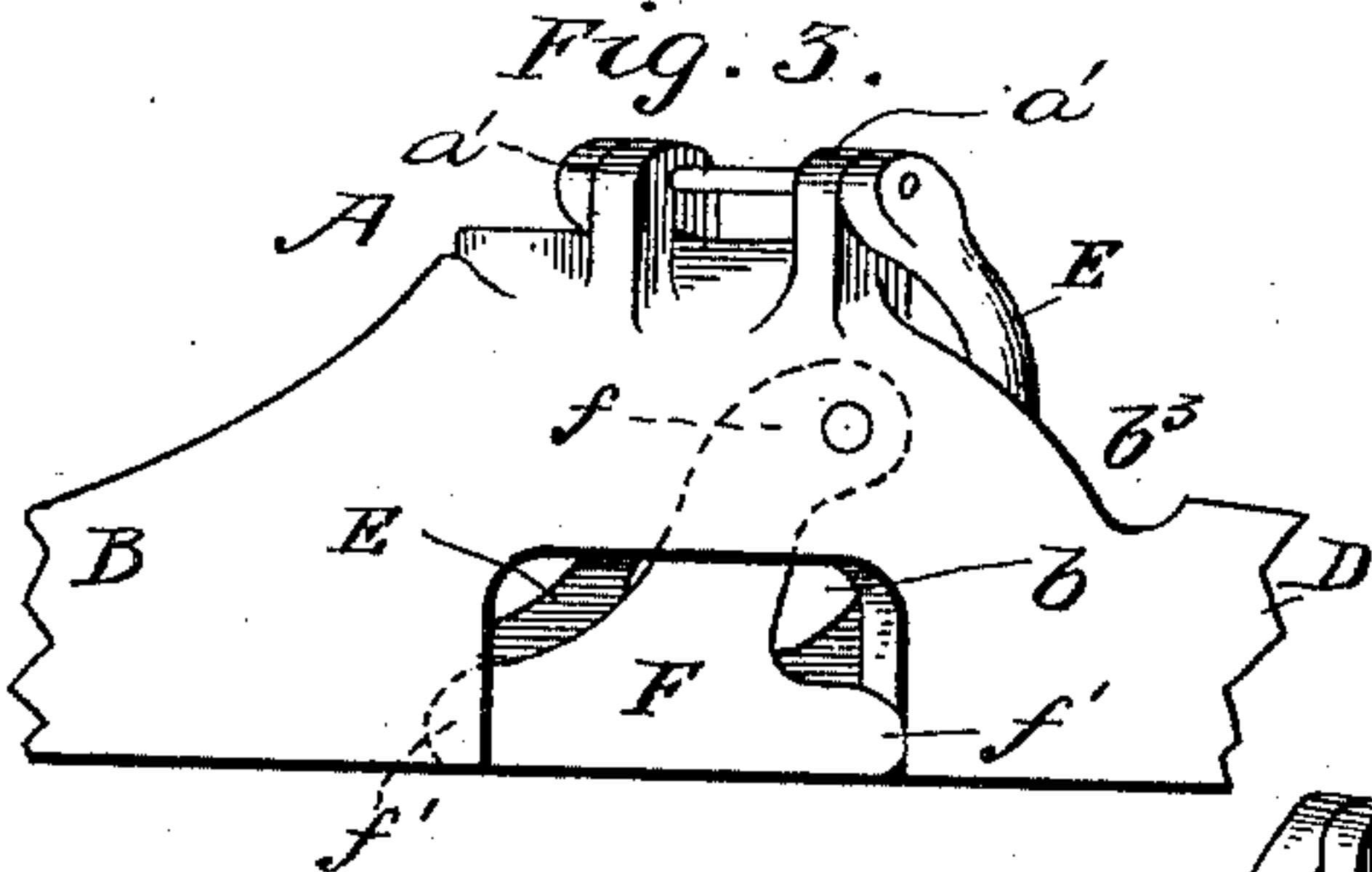


Fig. 2.

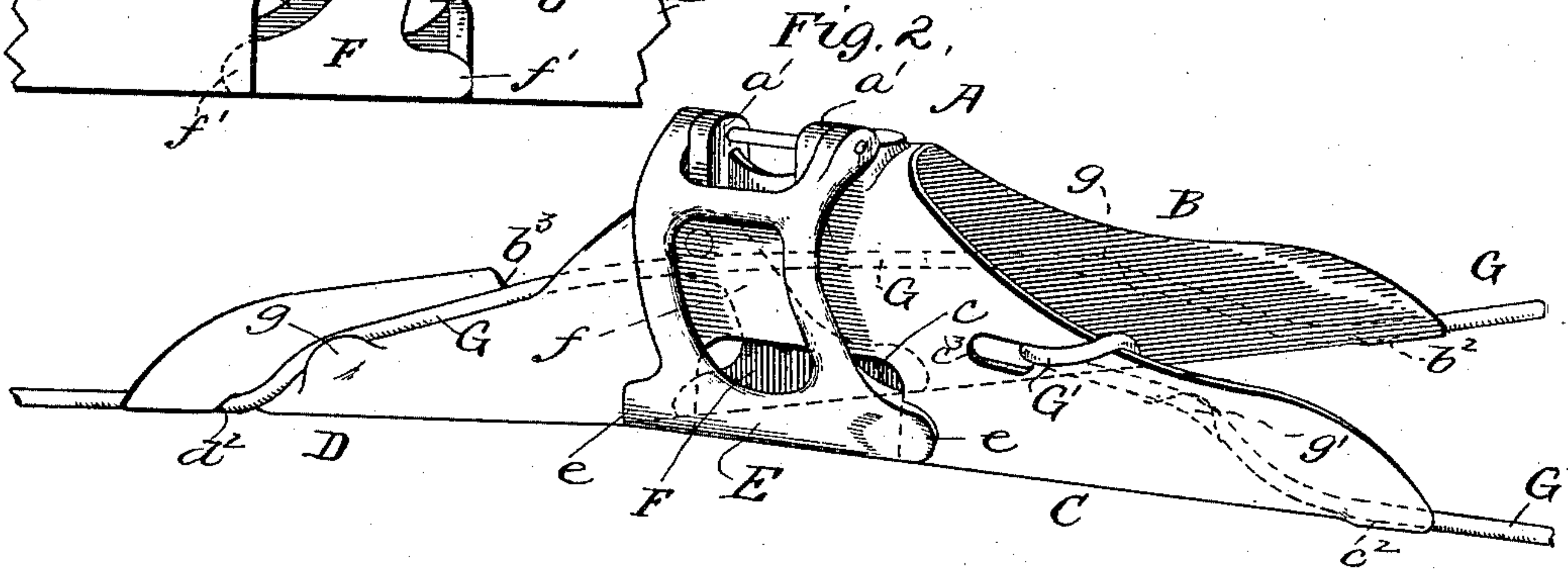
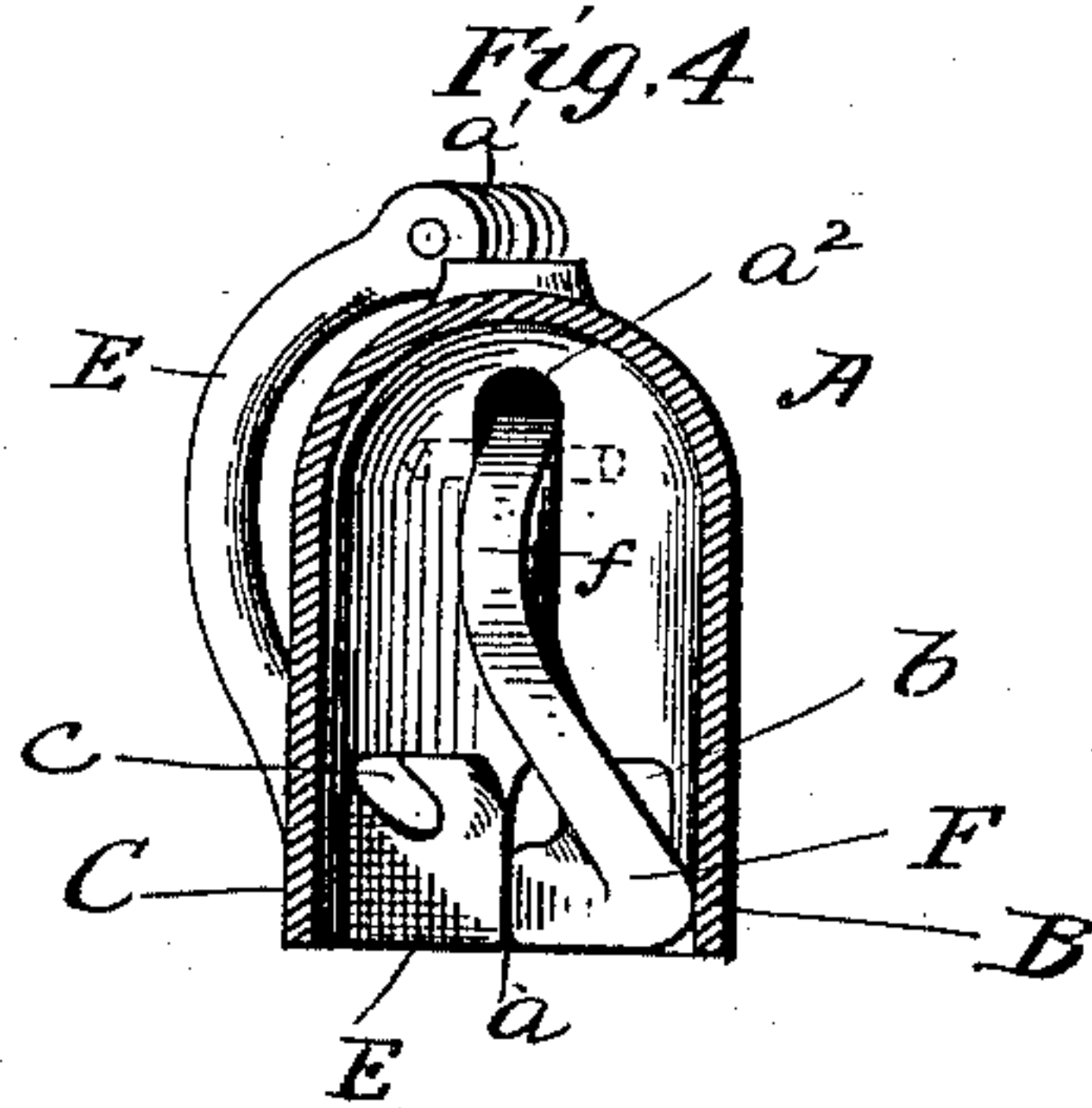


Fig. 4.



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TROLLEY-SWITCH FOR ELECTRIC RAILWAYS.

SPECIFICATION forming part of Letters Patent No. 443,081, dated December 16, 1890.

Application filed September 25, 1890. Serial No. 366,105. (No model.)

To all whom it may concern:

Be it known that I, JOHN JONES, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Electric Railways, of which the following is a specification.

My invention relates to trolley-switches for electric railways, particularly adapted to single-track roads, where the cars are switched onto a side track at a point where one car meets another coming from an opposite direction.

The object of my invention is to provide a switch light and durable in construction, simple and effective in operation, and which may be attached at any point on the line without severing the electric conductor.

To this end my invention consists of a single Y-shaped casting of suitable material, the converging sides of which are provided near the apex at the lower edges with recesses which contain swinging gates or flaps, to be more fully described hereinafter.

Referring to the accompanying drawings, Figure 1 is a bottom plan view of my improved switch. Fig. 2 is a perspective view, looking at one side thereof. Fig. 3 is an elevation of the other side, and Fig. 4 is a section on line $x x$ of Fig. 1.

A represents a single casting of metal, consisting of a pair of converging wings or blades B and C, which from the apex a are continued to form the single flat blade D. These wings B and C are each provided with recesses b and c , respectively, the apex of said converging sides being the common boundary of the recesses.

At the top of casting A, I provide a pair of lugs $a' a'$, to which is hinged in any suitable manner a gate or flap E, the lower edges of which are designed to fill up recess b and be held by gravity in a line flush with the lower edges of wings B and D. This gate E has an outward swing, but by being pivoted in the manner shown its normal tendency is to bear closely against the sides of the casting A. In the upper part of said casting, between the wings B and C at their point of convergence, is a bearing a^2 , which receives the stem f of gate F. This gate is designed to fill up re-

cess c and perform a function similar to that of gate E. Gate F, however, is capable of an inward and upward swing, but is normally in the position shown, gravity alone being sufficient to hold both gates in such position that their lower edges will establish straight paths across the recesses. Small lugs $e f'$ prevent the gates from swinging beyond their proper positions.

At the extreme end of each wing or blade of my switch and on the under edges thereof are short grooves b^2 , c^2 , and d^2 for the accommodation of the electrical conductors or line-wires G G'. The main line (represented by G) passes through groove b^2 , thence along the outer side of wing B to notch b^3 , where it crosses to the opposite side of switch and passes out through groove d^2 . Guide-lugs g may be placed at suitable intervals to prevent disarrangement of the conductor. The branch line is brought through groove c^2 along the side of wing C over guide-lug g' , and is then looped through an opening c^3 , as shown. Electric connection between the branch line and the switch, however, may be made in any other suitable manner.

The operation is as follows: A trolley passing along main line G travels under wing B and gate F till it reaches point a . The trolley-wheel, striking gate E, swings it outwardly and passes on along wing D. On the return the trolley-wheel reaches point a , and the flanges thereof strike both gates simultaneously and tend to press them inwardly. The gate F yields and rides over the trolley-wheel as it passes on. The gate E, however, is prevented from such movement by the lugs e , and thus remains stationary and affords a free path for the trolley to the branch line C.

It will be observed that according to my invention a switch may be placed at any point on the road without the least injury to the main line. It may be supported in any suitable manner to a pole.

The advantages of my switch are obvious. It is simple in construction and of few parts and automatic in its operation, the gates or flaps being operated in one direction by the trolley-wheel and the other by gravity.

Having described my invention, I claim—
1. A switch for overhead electric wires, em-

bodying two movable sections of the conductor, one in the main line and the other in the branch, the sections being held in their normal position by gravity, as set forth.

5 2. The combination, with two conductors branching from each other, of two movable sections, one of each conductor located at the junction of the conductors, the sections being suspended from pivots located above the conductors, and stops to prevent the movable sections from swinging in one direction.

3. A switch consisting of a movable section suspended from a pivot, in combination with a stop to prevent the swinging of the section in one direction.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

JOHN JONES.

Witnesses:

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