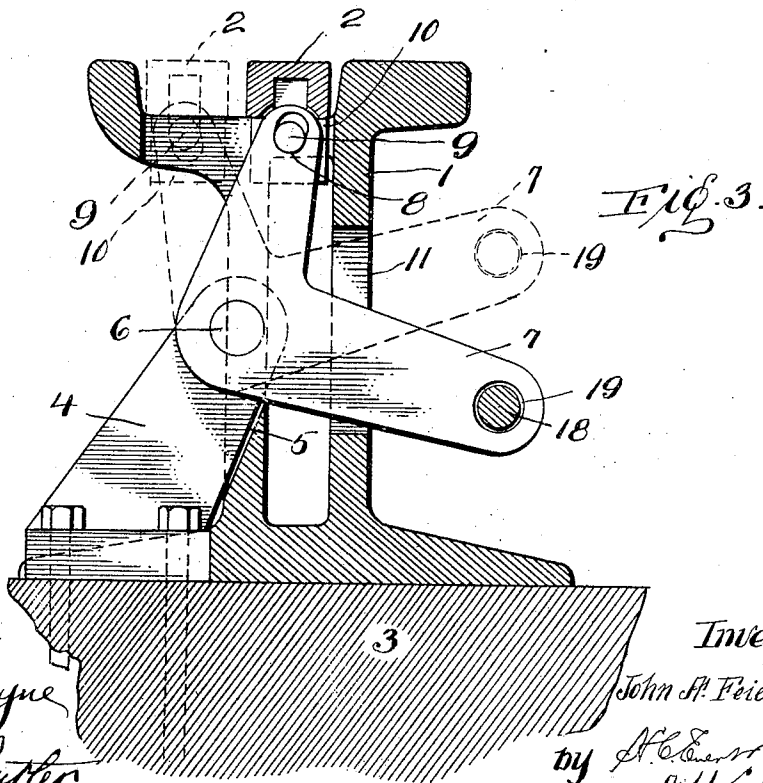
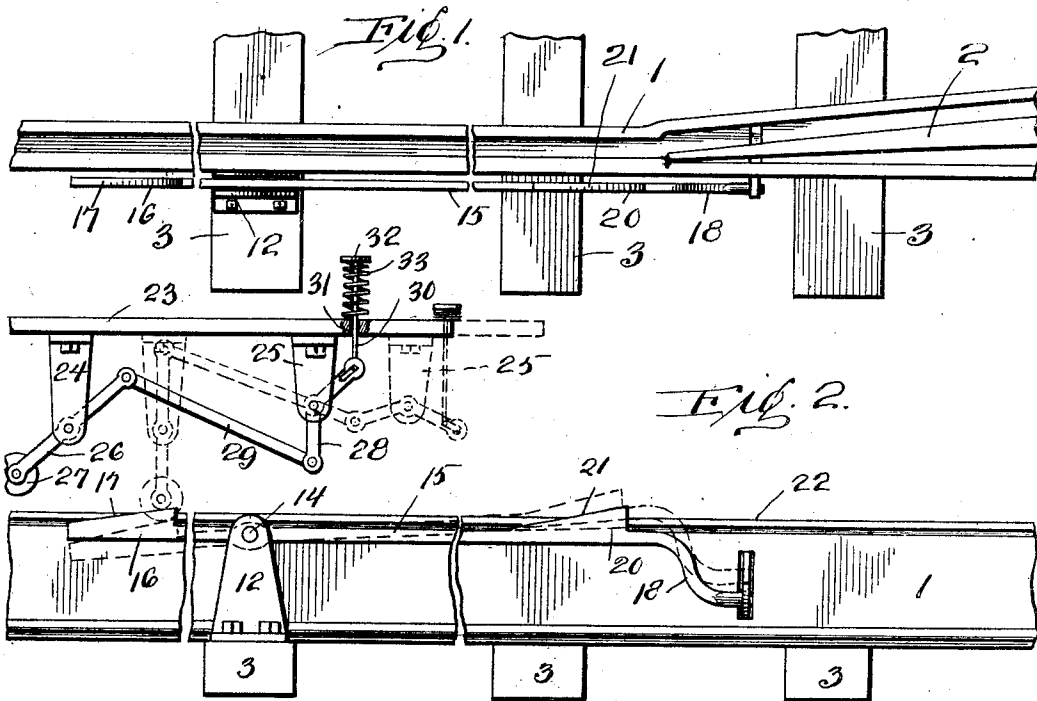


No. 836,493.

PATENTED NOV. 20, 1906.

J. A. FEIERABEND.  
SWITCH THROWING DEVICE.

APPLICATION FILED AUG. 27, 1906.



Witnesses.

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# UNITED STATES PATENT OFFICE.

JOHN A. FEIERABEND, OF BRADDOCK, PENNSYLVANIA.

## SWITCH-THROWING DEVICE.

No. 836,493.

Specification of Letters Patent.

Patented Nov. 20, 1906.

Application filed August 27, 1906. Serial No. 332,173.

*To all whom it may concern:*

Be it known that I, JOHN A. FEIERABEND, a citizen of the United States of America, residing at Braddock, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Switch-Throwing Devices, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to certain new and useful improvements in switch-throwing devices, particularly designed for street-railways.

The primary object of this invention is the provision of novel means for throwing a switch-tongue while the car is in motion, this being accomplished by the motorman or operator of the car actuating certain mechanisms carried by the car and one of the rails upon which the car travels.

Another object of this invention is to provide a simple and inexpensive switch-throwing device which can be easily and quickly installed in connection with the present form of switch-tongue and the remainder of a street-railway equipment.

With these and other objects in view the invention consists in the novel construction, combination, and arrangement of parts to be presently described in detail and then specifically pointed out in the appended claims.

Referring to the drawings in this specification, like numerals of reference indicate similar parts throughout the several views, in which—

Figure 1 is a plan of a section of rails constructed in accordance with my invention. Fig. 2 is a side elevation of the same, illustrating a car in connection therewith; and Fig. 3 is a cross-sectional view of a rail adjacent to the switch-tongue.

In the accompanying drawings I have illustrated the section of rail 1 as having a pivoted switch-tongue 2 and as being supported by ties or sleepers 3. Upon the ties or sleepers adjacent to the switch-tongue 2 I mount a bracket 4, which extends inwardly beneath the path of travel of the switch-tongue 2, the rail 1 being cut away, as at 5, to accommodate said bracket. Pivotaly connected to the bracket, as at 6, is a bell-crank lever 7, the upper end of which is slotted, as at 8, to receive a pin 9, carried by the depending lug of the switch-tongue 2. The rail 1 is slotted, as at 11, to receive the end of

the bell-crank lever 7 and permit of its movement therein. The position to which the bell-crank lever 7 and the switch-tongue 2 are moved is shown in dotted line of Fig. 3 of the drawings.

Upon one of the ties or sleepers 3 a short distance from the switch-tongue 2 is mounted a bracket 12, and pivotaly mounted in said bracket, as at 14, is a bar 15. The bar 15 upon its one end is provided with an enlargement 16, having a beveled face 17, while its opposite end is bent, as at 18, to engage in an opening 19, formed in the end of the bell-crank lever 7. Adjacent to the bent end 18 of the bar 15 is another enlargement 20, having a beveled face 21 similar to the enlargement 16, carried at the opposite end of the bar 15. One of the enlargements 16 and 20 is adapted to normally lie above the tread 22 of the rail 1, whereby the bar 15 can be actuated by the mechanism carried by the car which travels upon the rail 1.

The platform of a car 23 is provided with hangers 24 and 25. In the hanger 24 is a pivoted bar 26, having a roller 27 journaled in its lower end. In the hanger 25 is pivotaly mounted a bell-crank lever 28, the lower end of which is connected to the upper end of a bar 26 by rod 29. Loosely connected with the upper end of the bell-crank lever 28 is a rod 30, which extends upwardly through an opening 31 formed in the platform of the car and is provided with a tread-block 32. A spring 33, interposed between the block 32 and the platform of the car, serves to retain the rod 30 in an elevated position.

In dotted lines in Fig. 2 I have illustrated the car mechanism as engaging the bar 15 to throw the switch-tongue 2 to the position illustrated in dotted lines in Fig. 3 of the drawings. The enlargement 16 of the bar 15 is employed for throwing the switch-tongue in one direction, while the enlargement 20 is moved to throw the switch-tongue 2 in the opposite direction, both of these enlargements being moved through the medium of the car mechanism when the operator or motorman of the car depresses the rod 30.

My invention particularly resides in the switch-throwing mechanism used in connection with the rail and the switch-tongue, irrespective of the mechanism carried by the car to actuate the rail mechanism.

It is thought that the operation of my improved switch-throwing device will be clearly understood without further description, and

while I have herein illustrated the preferred arrangement of a switch-throwing mechanism it is obvious that such changes in the details of construction as are permissible by the  
5 appended claims may be resorted to without departing from the scope of the invention.

Having fully described my invention, what I claim is—

1. In a switch-throwing device, the combination with a rail having a switch-tongue,  
10 and a car adapted to travel upon said rail, of a bell-crank lever pivotally mounted beneath the path of travel of said switch-tongue and projecting outwardly to one side of said rail,  
15 a bar pivotally mounted adjacent to said rail and connecting with said bell-crank lever, enlargements carried by said bar and having beveled faces, a bar carried by said car and having a roller journaled in its end, and  
20 means actuated from the platform of said car

to move said roller to engage one of the enlargements of the first-mentioned bar, substantially as described.

2. In a switch-throwing device, the combination with a rail having a switch-tongue,  
25 and a car, of a bell-crank lever pivotally mounted adjacent to said tongue and connecting therewith, a bar pivotally mounted adjacent to said rail and connecting the said bell-crank lever, beveled enlargements carried by said bar, and means carried by said  
30 car to engage said enlargement and move said switch-tongue, substantially as described.

In testimony whereof I affix my signature in the presence of two witnesses.

JOHN A. FEIERABEND.

Witnesses:

MAX H. SROLOVITZ,

A. J. TRIGG.