

(No Model.)

J. BRAUTIGAM.  
SWITCHING DEVICE FOR STREET RAILWAY CARS.  
No. 526,481. Patented Sept. 25, 1894.

Fig: 1.

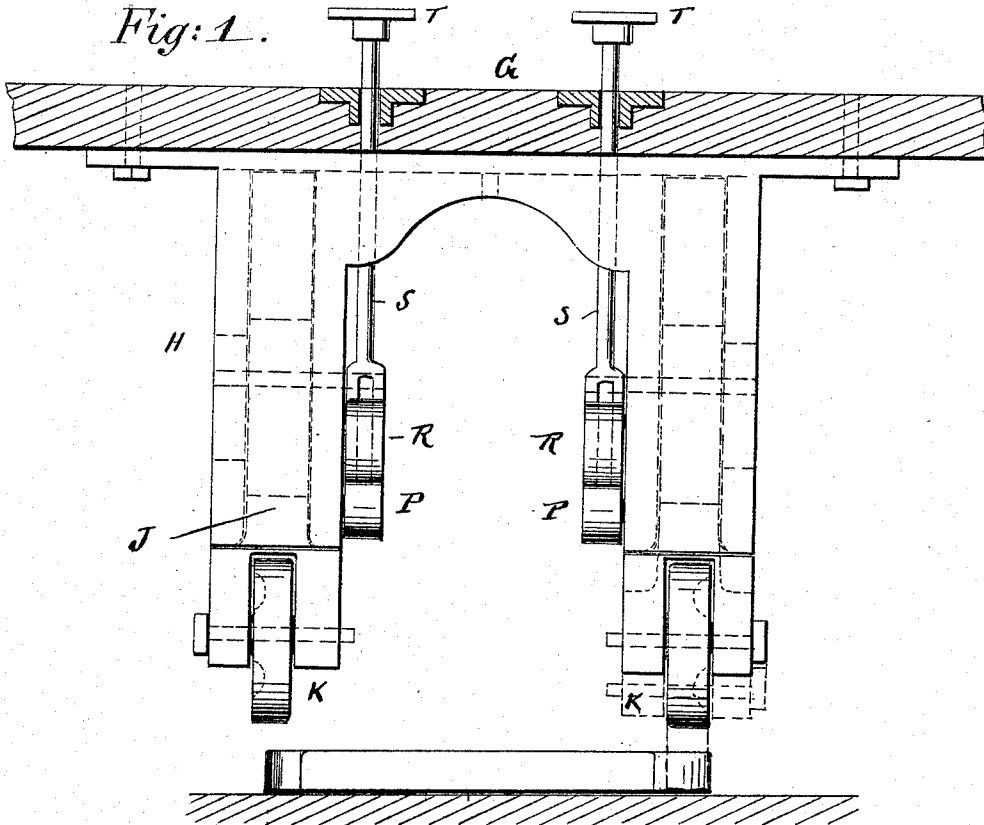


Fig: 2.

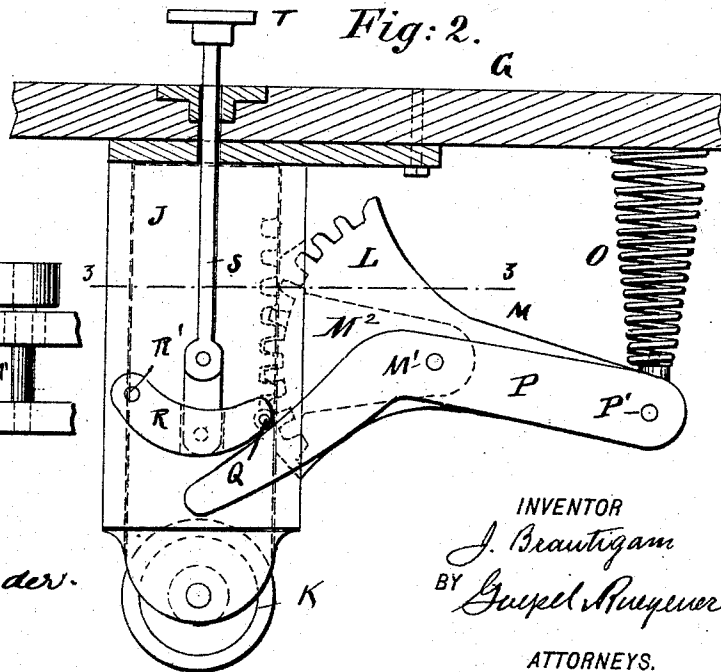
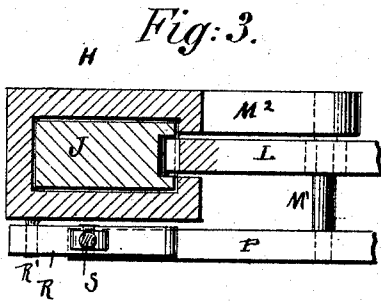


Fig: 3.



WITNESSES:

Otto Reiss.  
Charles Schroeder.

INVENTOR  
J. Brautigam  
BY Guepel Rueger  
ATTORNEYS.

# UNITED STATES PATENT OFFICE.

JOSEPH BRAUTIGAM, OF BROOKLYN, NEW YORK.

## SWITCHING DEVICE FOR STREET-RAILWAY CARS.

SPECIFICATION forming part of Letters Patent No. 526,481, dated September 25, 1894.

Application filed October 19, 1893. Serial No. 488,578. (No model.)

*To all whom it may concern:*

Be it known that I, JOSEPH BRAUTIGAM, a citizen of the United States, and a resident of Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Switching Devices for Street-Railway Cars, of which the following is a specification.

The object of my invention is to provide a new and improved switching device for street railway cars, such as horse-cars, cable cars, trolley cars, motor cars, &c., by means of which device the switch can readily be set from the moving car.

In the accompanying drawings, Figure 1 is a front-view of my improved switching device on the car, part of the car platform being shown in section. Fig. 2 is a side-view, in a plane at right-angles to the plane of Fig. 1, part of the car floor being in section. Fig. 3 is a sectional plan-view, on the line 3 3, of Fig. 2.

Similar letters of reference indicate corresponding parts.

To the bottom of the car floor G two guide-boxes H are bolted to project down vertically and each contains a sliding-bar J having its lower end forked and carrying a roller K in said forked lower end. The rear edge of each bar J is toothed, to form a rack, and said rack engages a toothed segment L passing through a slot in the rear side of the box H, which toothed segment is formed on the front end of a lever M pivoted at M' to an arm M<sup>2</sup> of a box H on the outer end of which arm M the lower end of a helical spring O bears, the upper end of which spring is fastened to the car floor. An angle-lever P is mounted on the same pivot with the lever M and has one end connected by a pin P' with the outer end of the lever M, and the front shank of said angle-lever P bears against an anti-friction roller Q on the end of a cam-lever R pivoted at R' to the side of the box, which lever R is pivotally connected with a rod S extending up through the car floor and having a foot-plate T on its upper end.

Whenever the switch is to be operated from the car the corresponding foot-plate T

is pressed downward, whereby the lever R is caused to act on and depress the front end of the angle-lever P, and thereby the rear end of said angle-lever is raised and the spring O compressed. At the same time the rear end of the lever M is raised and the toothed segment L is swung downward, so as to move the bar J downward. Thereby the corresponding roller is moved down to the pavement and can act on the switch tongue or mechanism for shifting the switch tongue to the right. When the switch-tongue is not in contact with a rail A' and is to be moved to the same, that is, to the left-hand, and the car moves in the direction of the arrow *x*, the right-hand foot-plate T is depressed and the right-hand roller K lowered, so that when said roller strikes the right-hand curved end of the plate E said plate E is moved to the left. In a similar manner the foot-plates are depressed when the car moves in the inverse direction of the arrow *x'*. In all cases the right-hand foot-plate is depressed when the car is to run to the right and the left-hand foot-plate is depressed when the car is to be run to the left. The spring raises the bars J as soon as the foot is removed from the foot-plate T.

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

1. The combination with a car, of a guide extending downward from the same, a bar guided therein, a roller on the lower end of the bar, a pivoted lever having a toothed segment engaging a rack on the guided bar, a spring acting on said lever and an additional pivoted lever connected with the lever having the toothed segment, and means extending above the car floor, for operating said additional lever, substantially as set forth.

2. The combination with a car floor, of a guide projecting downward from the same, a bar guided in said guide and provided with a rack, a roller on the lower end of said rack-bar, a lever pivoted on an arm of said guide and provided at one end with a toothed segment engaging said rack, a spring acting on

the opposite end of said lever, an additional lever connected with the lever having the toothed segment, a cam-lever pivoted to the guide, and a rod pivoted to the cam-lever and  
5 extending up to the car floor, substantially as set forth.

In testimony that I claim the foregoing as

my invention I have signed my name in presence of two subscribing witnesses.

JOSEPH BRAUTIGAM.

Witnesses:

OSCAR F. GUNZ,  
CHARLES SCHROEDER.