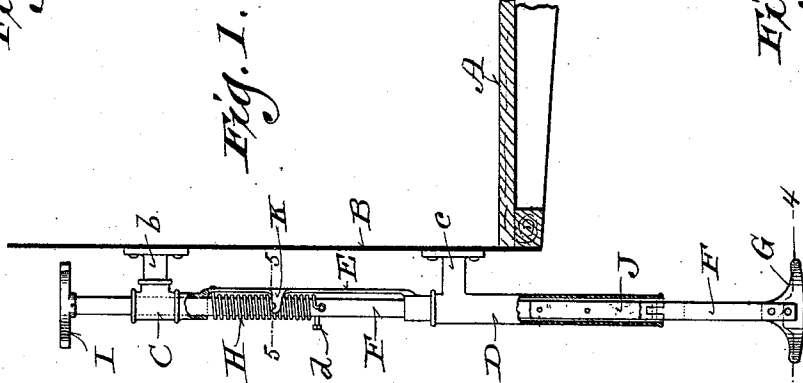
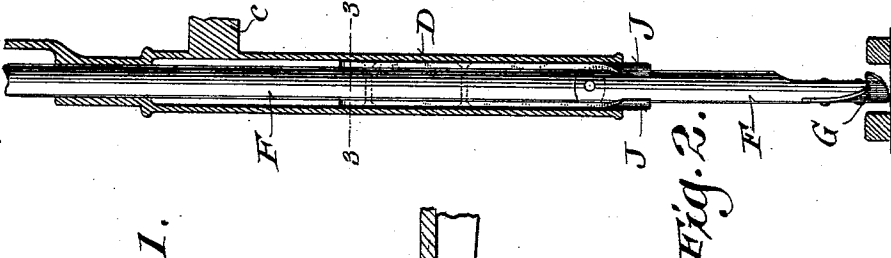
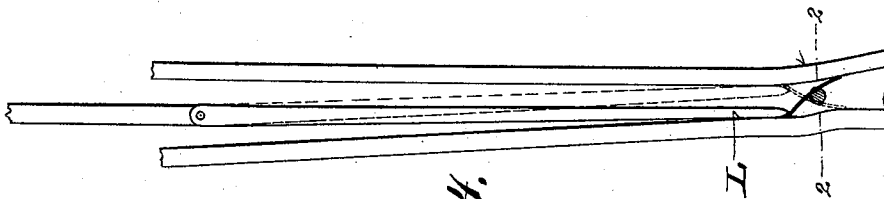
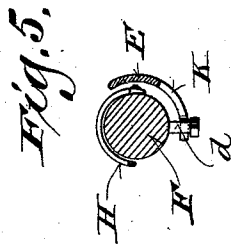


(No Model.)

S. HOENINGER.
SWITCH THROWER.

No. 537,039.

Patented Apr. 9, 1895.



Witnesses
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H. C. Oliphant

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UNITED STATES PATENT OFFICE.

SEBASTIAN HOENINGER, OF MILWAUKEE, WISCONSIN.

SWITCH-THROWER.

SPECIFICATION forming part of Letters Patent No. 537,039, dated April 9, 1895.

Application filed December 20, 1893. Serial No. 494,145. (No model.)

To all whom it may concern:

Be it known that I, SEBASTIAN HOENINGER, a citizen of the United States, and a resident of Milwaukee, in the county of Milwaukee, and in the State of Wisconsin, have invented certain new and useful Improvements in Switch-Throwers; and I do hereby declare that the following is a full, clear, and exact description thereof.

My invention has for its object to provide a simple, economical device for attachment to a street-car, whereby the driver or motorman of the same may throw switches without leaving the platform on which he rides; and said invention consists in certain peculiarities of construction and combination of parts hereinafter specified with reference to the accompanying drawings and subsequently claimed.

In the drawings: Figure 1 represents a side elevation of my switch-throwing mechanism partly broken away and attached to a street-car; Fig. 2, a partly sectional view of said mechanism illustrating a pair of spring-jaws embodied therein, and Fig. 3, a horizontal section taken on line 3—3 of the preceding figure; Fig. 4, a plan view of a switch and a horizontal section on line 4—4 of the first figure; Fig. 5, a horizontal section on line 5—5 of the first figure, and Fig. 6, a plan view of the handle portion of the aforesaid mechanism.

Referring by letter to the drawings, A represents the platform of a street-car and B the dash-board of the same. Bolted or otherwise rigidly secured to the front of the dash-board are the flanged horizontal shanks *b*, *c*, of vertical sleeves C, D, that are connected by a plate E, and it is possible to cast the plate, the sleeves and their shanks in one piece. Loosely engaging the sleeves is a preferably jointed rod F having a curved blade G rigidly attached to its lower end, and surrounding the rod intermediate of said sleeves is a spiral spring H one end of the latter being fast to said rod and the other end likewise secured to the upper portion of the aforesaid plate. A handle I is made fast to the upper end of the rod, and it is preferable to have this handle of the same curve and set as the blade G above specified whereby the position of this blade at any time may be accurately de-

termined by the operator from the car-platform. When a jointed rod is employed a pair of spring jaws J rigidly secured to the upper section of said rod embrace the lower section of the same, and by this construction I provide for a yield of a blade G to possible obstructions in its path, or undue resistance of a switch point.

A lateral ear K on the plate E is provided with a notch for the engagement of a lug *d* on the rod F above specified in order to support this rod at its greatest elevation.

In practice the mechanism above specified is arranged on an ear so as to have the rod F in such position that the blade G may be operated to throw a pivoted switch point L, said rod being pushed down against the resistance of the spring H to bring said blade into working position. Ordinarily the rod is pulled up and held at its greatest elevation by an engagement of the lug *d* with the notch in the ear K on the plate E and when said rod is in this position, the spring H will be compressed and the blade G maintained close to the lower end of the lower guide-sleeve D for said rod. Upon the disengagement of the lug from the notch in the plate-ear there will be an automatic descent of the rod and blade until the latter is within a reasonable distance of a line of track-rails, as shown in Fig. 1, the spring H acting as a counter-balance to maintain said rod and blade in this position. When the car approaches a switch, that must be thrown the driver or motorman pushes down on the rod against the resistance of the counter-balancing spring, and by means of the handle I turns said rod so as to have the blade G come in against the switch point L whereby the latter is automatically moved to the desired position as will be readily understood by reference to Fig. 4, wherein full and dotted lines show the operation of said blade.

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

1. A switch-thrower for attachment to street-cars, the same comprising a pair of vertical sleeves, a plate connecting the same, a rod loose in the sleeves, a blade attached to the lower end of the rod, a spiral-spring on the rod connecting the latter and the plate,

a notched ear on the plate, and a lug on said rod for engagement with the notch in the plate-ear, substantially as set forth.

2. A switch-thrower for attachment to
5 street-cars, the same comprising a pair of vertical sleeves joined by a plate having a notched ear, a jointed rod loose in the sleeves and provided with a lug for engagement with the plate-ear, spring-jaws fast on one section
10 of the rod and embracing the other section of the same, a blade fast to the lower end of said rod, and a spiral-spring on the aforesaid rod connecting the latter and said plate, substantially as set forth.

15 3. A switch-thrower for attachment to

street-cars, the same comprising a vertically adjustable jointed rod, spring-jaws fast on one section of the rod and embracing the other section of the same, and a suitable blade fast to the lower end of said rod, substantially 20 as set forth.

In testimony that I claim the foregoing I have hereunto set my hand, at Milwaukee, in the county of Milwaukee and State of Wisconsin, in the presence of two witnesses.

S. HOENINGER.

Witnesses:

N. E. OLIPHANT,
HENRY DANKERT.