

No. 834,466.

PATENTED OCT. 30, 1906.

N. T. GOULD.
SWITCH OPERATOR.
APPLICATION FILED APR. 27, 1906.

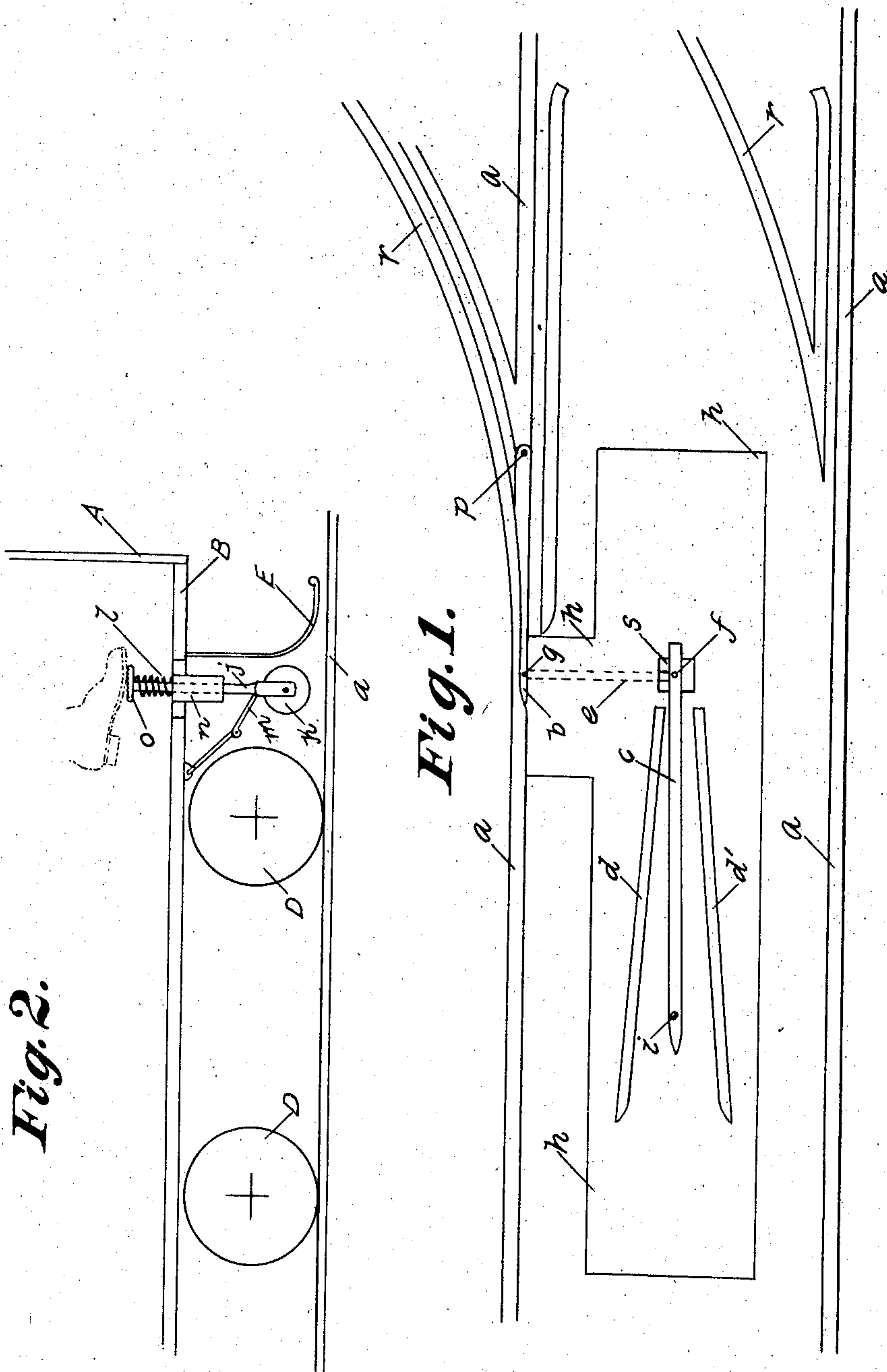


Fig. 2.

Fig. 1.

WITNESSES:
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SWITCH-OPERATOR.

No. 834,466.

Specification of Letters Patent.

Patented Oct. 30, 1906.

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To all whom it may concern:

Be it known that I, NEWTON THOMAS GOULD, a citizen of the United States, residing at Sacramento, in the county of Sacramento, State of California, have invented a new and useful Switch-Operator, of which the following is a specification.

This invention relates to devices for operating the switch-points of railway-tracks, more particularly of street-railway tracks; and it has for its objects to provide a simply-constructed and efficient device for the purpose under the control of the motorman or other attendant on the moving car.

With this and other objects in view, which will appear as the nature of the invention is better understood, the same consists in certain novel features of construction, as herein-after fully described and claimed.

In the accompanying drawings, forming a part of this specification, and in which corresponding parts are denoted by like designating characters, is illustrated the preferred embodiment of the invention capable of carrying the same into practical operation, it being understood that the invention is not necessarily limited thereto, as various changes in the shape, proportions, and general assemblage of the parts may be resorted to without departing from the principle of the invention or sacrificing any of its advantages.

In the drawings, Figure 1 is a plan view of a part of my invention combined with street-car tracks and with a switch-point, showing the improved device in position in the center of the track adapted to shunt rolling-stock to either of said tracks. Fig. 2 is a vertical section of the switch-controller or tappet in position on a car and part of a railway-car on which the switch-controller or tappet as part of my invention is mounted.

In the improved device is comprised two general portions, one portion located within the road-bed of the track and coupled to the switch-point and another portion connected to the car and adapted for operation by the motorman or other attendant to actuate the switch-point.

In Fig. 1 the tracks *a a* and *r r* and the switch-point *b*, pivoted at *p*, are of the usual construction, and the point-operating portion of the device consists of a switch-rail *c*, disposed longitudinally of the rails *a a* and

upon a plate at base *h*, to which it is pivoted at *i*. The free end of switch-rail *c* is coupled transversely by a rod *e* to the free end of the switch-point *b* at *g*, the rod *e*, attached to the switch-point at *g* and to the switch-rail at *f*, operating beneath the plate or base *h*. *s* shows an open space in plate *h* to allow free operation of rod *e* and switch-rail *c*. Disposed at acute angles to switch-rail *c* are the guide-rails *d d'*. The guide-rails *d d'*, which are secured to the base *h*, are so disposed at acute angles to switch-rail *c* that when the pulley *k* of the tappet *j* in Fig. 2 is engaged between the guide-rail *d* and the switch-rail *c* the switch-point *b* will be held open and the car will be shunted to the left, and when engaged between the guide-rail *d'* and the switch-rail *c* switch-point *b* will be closed and the car will go straight ahead. By this mechanism and arrangement it is obvious that the switch-point may be operated by engaging the tappet of the switch-controller on one side or the other of switch-rail *c*.

The portion of my invention attached to the car *A*, as shown in Fig. 2, consists of the sleeve or pocket frame *n*, attached to and extending through the floor *B* of a car, tappet *j* set back of fender *E* operating in sleeve *n* and supported by a hinge-jointed rod *m*. On the upper end of the tappet is a pedal-plate *o*, and helical spring *l* surrounds the tappet and is impinged against the under side of the pedal-plate *o* and against the upper side of sleeve *n*. To the lower end of tappet *j* is suspended a pulley *k* of such construction and adjustment as to engage the switch-rail *c* and guide-rails *d d'* and operate the switch-point *b* as desired.

The operation and advantages of my invention are, owing to the extreme simplicity of its construction, readily understood and appreciated by those skilled in the art to which it pertains.

Fig. 2 shows roughly the car *A* upon the track *a a* approaching the switch-point *b*. The motorman or operator places his foot upon the pedal-plate *o* of the tappet and the pulley *k* of the switch-controller is instantly engaged between guard-rail *d* and switch-rail *c* or the guard-rail *d'* and the switch-rail *c*, as is desired, and the switch-point *b* will be set so as to shunt the car to the tracks *r r* or straight ahead on the track *a a* by the time the wheels

D of the car shall have reached the switch-point *b*. The operation of this device and improvement in switch-operators is inevitable, and when the switch-controller or tappet
5 is engaged with the switch-rail *c* the switch-point *b* must be set and that without stopping the car.

It will be noted that on each car must be placed four switch-controllers, two at either
10 end of the car or one controller so adjusted that it may be shifted to the right or to the left sufficiently to place it in position so as to engage the switch-rail on the proper side.

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

In combination, a switch-point, a base having an opening therethrough, a switch-

rail pivoted to the upper surface thereof, a connection between the switch-point and
20 switch-rail, said connection being beneath the plate, a pivotal pin passing through the opening of the base and uniting the connection with the switch-rail converging guide-
25 rails arranged on either side of the switch-rail, and means operating in conjunction with the guide-rails for contacting with the switch-rail for operating the switch-point.

In witness whereof I have hereunto set my hand, in the presence of two subscribing witnesses, this 18th day of April, 1906.
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NEWTON THOMAS GOULD.

Witnesses:

MILTON MORE REMINTON,
WILLIAM SUNDERLAND HOWE.