

No. 772,715.

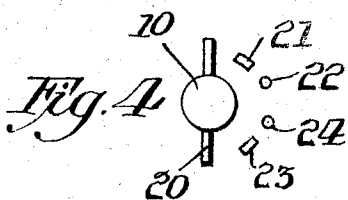
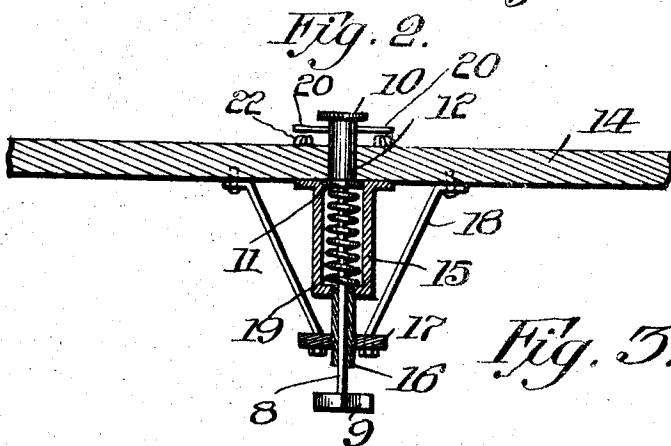
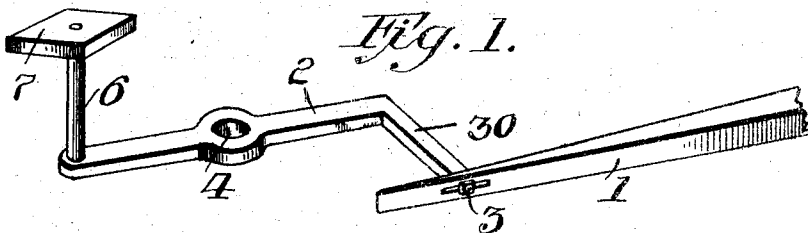
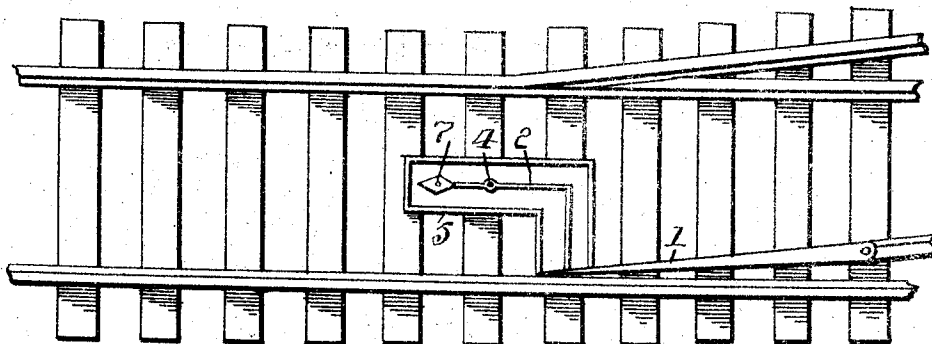
PATENTED OCT. 18, 1904.

S. KENNEDY.

SWITCH OPERATING MECHANISM.

APPLICATION FILED AUG. 21, 1903. RENEWED SEPT. 16, 1904.

NO MODEL.



Witnesses:
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UNITED STATES PATENT OFFICE.

SHESHBAZZAR KENNEDY, OF RIVERVIEW, PENNSYLVANIA.

SWITCH-OPERATING MECHANISM.

SPECIFICATION forming part of Letters Patent No. 772,715, dated October 18, 1904.

Application filed August 21, 1903. Renewed September 16, 1904. Serial No. 224,656. (No model.)

To all whom it may concern:

Be it known that I, SHESHBAZZAR KENNEDY, a citizen of the United States of America, residing at Riverview, in the county of Washington and State of Pennsylvania, have invented certain new and useful Improvements in Switch-Operating Mechanism, 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-operating mechanism; and the primary object of the invention is to provide novel and effective means which will permit of the operation of the switch by the motorman on the car without necessitating the stopping of said car and throwing the switch.

As is well known, in street-railways where the car is to be switched from the main track to the side line it is customary that the car be stopped just before it reaches the switch and the motorman or conductor dismounts to throw the switch by means of a rod or other instrument. This is oftentimes very unsatisfactory, as it involves not only an unnecessary amount of labor, but also entails delays in running the car, and sometimes it happens that the car passes beyond the switch-rails, rendering it necessary to back the same before the switch-rails can be operated.

It is the object of my invention to construct a device whereby these objections in the present method may be overcome, and in describing the invention in detail reference will be had to the accompanying drawings, forming a part of this specification, and wherein like numerals of reference indicate like parts throughout the several views, in which—

Figure 1 is a top plan view of a portion of a track, showing a switch connected to the operating-rod. Fig. 2 is a detached detail perspective view of a part of the switch-tongue and the operating-rod. Fig. 3 is a transverse vertical sectional view of the operating device and a part of the car-platform. Fig. 4 is a diagrammatic top plan view of the same.

To put my invention into practice I connect a throwing-rod to the switch-tongue, and this throwing-rod is so mounted as to be engaged

by the shoe carried by the car, whereby to move the rod in a manner to actuate the switch-tongue to place the latter in the desired position. To this end I connect to the switch-tongue 1 a substantially L-shaped throwing-rod 2, the shorter arm of which is connected to the switch-tongue, a convenient method being to thread the shank on the end of said shorter arm, extending this shank through the switch-tongue, and secure the same by the nut 3. The longer arm of the rod 2 is provided with a hub 4 intermediate its end, and this hub is pivotally secured to the base-plate of the substantially L-shaped casing 5, arranged in the road-bed adjacent the switch-points, and in practice this casing may be provided with a suitable cover, whereby to protect the throwing-rod 2. At its outer or free end the throwing-rod carries a post 6, on which is mounted a substantially diamond-shaped shoe 7, which will lie above the cover-plate of the casing 5. To engage this shoe 7 and actuate the switch-point 1 through the medium of the rod 2, I provide mechanism on the car consisting of a plunger-rod 8, carrying a shoe 9 at its lower end, said shoe being of a substantially diamond-shaped form. This plunger-rod is spring-pressed to normally hold the same in the elevated position and is provided on its upper end with a head 10 and near the upper end with a collar 11. The portion 12 of said rod between the head or button 10 and collar 11 is made of a greater diameter than the lower portion of the rod and works freely in the platform 14. The rod extends through the casing 15, attached to the underneath side of the car-platform, and through the tube 16, carried by the lower end of said casing, this tube extending through the hanger-plate 17, to which is connected hanger-rods 18, attached at their upper ends to the underneath side of the car-platform. A spring 19 is arranged on the plunger-rod 8 between collar 11 and the lower end of the casing 15. The portion 12 of the plunger-rod carries between the button or head 10 and the platform 14 the transverse pin 20, and arranged on the upper face of the car-platform adjacent to the plunger-rod is a holding means for assisting in the reten-

tion of the shoe in the desired position while the same is under tension. This consists of a lug 21, having the inclined face, and a pin 22, situated adjacent to said lug, also a similar
 5 lug 23 and a pin 24 situated adjacent thereto. When one of the pins 20 is engaged between lug 21 and pin 22 and the plunger held down under pressure, it will be prevented from rotating, and thus the shoe will be held in the
 10 desired position to properly engage shoe 7, and likewise when the opposite pin 20 is engaged between lug 23 and pin 24 the shoe 9 will be held in the proper position to engage shoe 7 in the desired manner.

15 The lugs 21 23 are inclined on their outer face, whereby when the plunger is rotated while under pressure of the foot pins 20 will be carried up over lugs 21 23 in order to allow the said pins to engage between said lugs and
 20 pins 22 24, respectively. On approaching the switch the motorman depresses plunger-rod 8, turning the same while under pressure of the foot so as to properly position shoe 9 to engage shoe 7 in order to move the switch-
 25 tongue in the desired position.

It will of course be evident that the location of the switch may require alteration in the location of the throwing-lever and that
 30 this lever may be made shorter or longer, according to existing conditions, and that such changes as these and others may be made

without departing from the general spirit of my invention.

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

In combination with the pivoted switch-tongue, the L-shaped throwing-rod connected thereto and pivotally secured in the road-bed, the post carried by the outer end of said rod, 40 and the shoe on the upper end of said post, of a spring-pressed plunger-rod mounted in the car-platform, a casing through which said rod extends and within which the spring is
 45 arranged for holding the rod normally elevated, a tube connected to the casing and through which the rod extends, a shoe on the lower end of said rod, a hanger-plate connected to the tube, hanger-rods connected to
 50 said plate and the car-platform, a head on the upper end of said rod, transversely-extending pins at opposite sides of the rod below said head, and means on the car-platform to be engaged by said pins for holding the plunger-rod in the desired position, substantially as
 55 described.

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

SHESHAZZAR KENNEDY.

Witnesses:

H. C. EVERT,
 E. E. POTTER.