

No. 749,009.

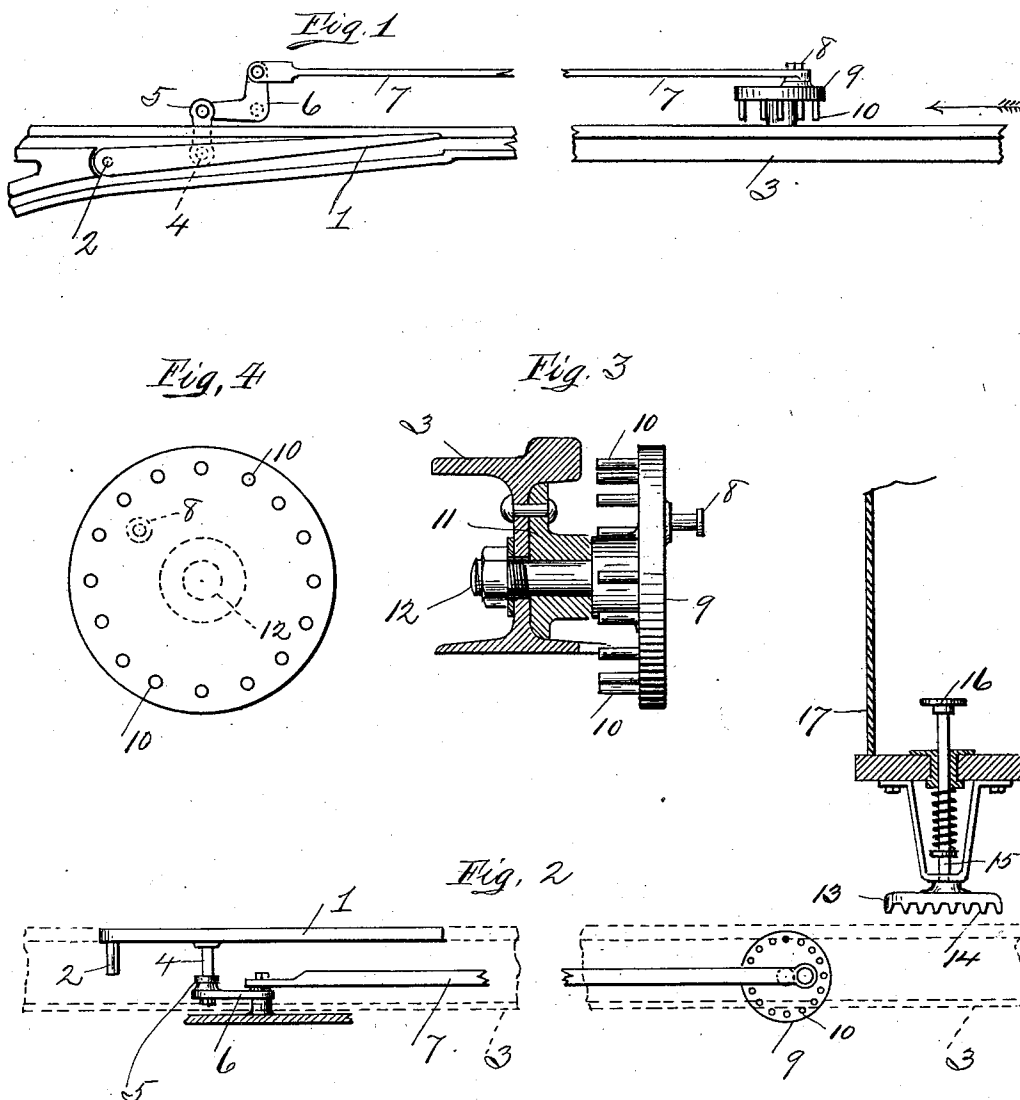
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H. T. YOUNG.

DEVICE FOR OPERATING STREET RAILWAY SWITCHES.

APPLICATION FILED APR. 18, 1903.

NO MODEL.



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UNITED STATES PATENT OFFICE.

HARRY T. YOUNG, OF HOMESTEAD, PENNSYLVANIA.

DEVICE FOR OPERATING STREET-RAILWAY SWITCHES.

SPECIFICATION forming part of Letters Patent No. 749,009, dated January 5, 1904.

Application filed April 18, 1903. Serial No. 153,213. (No model.)

To all whom it may concern:

Be it known that I, HARRY T. YOUNG, a citizen of the United States, residing at Homestead, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Devices for Operating Street-Railway Switches, of which improvement the following is a specification.

This invention relates to an improved switch-throwing device for street-railways; and it consists in the certain details of construction and combination of parts, as will be fully described hereinafter.

In the accompanying drawings Figure 1 is a plan view of a street-railway switch-bar and rail having my improved throwing device attached or connected therewith, the same being constructed and arranged in accordance with my invention. Fig. 2 is a side sectional elevation of the same, together with a section of the front platform of the street-car and a treadle mounted thereon. Fig. 3 is an enlarged detailed end elevation of the railway-rail, showing the manner in which the rotatable disk is connected thereto. Fig. 4 is a face view of the above-mentioned disk.

To put my invention into practice, and thereby provide a means of turning the switch-bars of street-railways, I connect to the said switch-bar 1 by means of a pivot 4 a link 5, the said bar 1 being pivoted at 2 in the ordinary manner. This link 5 is connected to a bell-crank 6 and the said crank connected by a rod or bar 7 to a disk 9, the same being journaled to the web of the rail 3 in the manner shown at Fig. 3 of the drawings. This disk is properly supported on a shaft 12, a bearing 11 riveted to the said web and secured or held in position by a nut. Arranged about the inner periphery of the disk 9 are a series of pins 10, placed at regular intervals, which are adapted to engage with a rack 13, operated by a treadle 16, the said treadle being operated and under the control of the motorman. The connection between the bell-crank 6 and the disk 9 is made by a wrist-pin 8 and the above-mentioned rod 7.

In operation the number of teeth in the rack-bar 14 corresponds to the number of pins 10 of the disk 9, the said rack-bar having one-half the number of teeth of that arranged about the disk 9. The treadle 16 when

pushed down will lower the rack-bar 13 to engage with the pins 10 of the disk and give the same a rotatable motion equal to one-half turn of the said disk. This motion of the disk is transferred by the rod 7 to the bell-crank 6 and to the switch-bar 1 to throw the same in either direction.

It is obvious that various slight modifications and changes may be made in the details of construction without departing from the spirit of the invention.

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

1. A switch-operating mechanism comprising in combination with a switch-rail, a rotary disk with projections thereon, pivotal link-and-lever connections between said rail and disk, and a spring-pressed rack-bar adapted to be carried by a car and to be depressed to engage said projections, whereby the disk may be rotated and the switch thrown, as set forth.

2. A switch-operating-mechanism comprising a pivoted rail, a disk, a shaft on which the same is journaled, a series of pins projecting from one face of the disk, pivotal link-and-lever connections between said link and rail, a spring-pressed rack-bar adapted to be carried by a car and designed to be depressed to engage said pins to cause the disk to rotate, as set forth.

3. In a device for the purpose described, the combination consisting of the switch-bar, the bell-crank and connecting-link, the disk journaled to the rail, a connecting-rod from the bell-crank to said disk, the projecting pins or teeth, arranged in peripheral form about the face of the disk, and a rack carried by the vehicle, a means of elevating and lowering the same, whereby the said rack may be brought in contact with the pins or teeth of the disk, to give the same a partial rotation, thereby moving the switch-bar, substantially as and for the purpose described.

In testimony whereof I have hereunto signed my name in the presence of two subscribing witnesses.

HARRY T. YOUNG.

In presence of—

H. J. LEVIS,
M. W. KURNIKER.