No. 723,867. PATENTED MAR. 31, 1903.

T. W. HEATLEY.

SWITCH TURNER FOR TRACTION RAILWAY CARS.

APPLICATION FILED NOV. 3, 1902.

NO MODEL.

Fig. 1

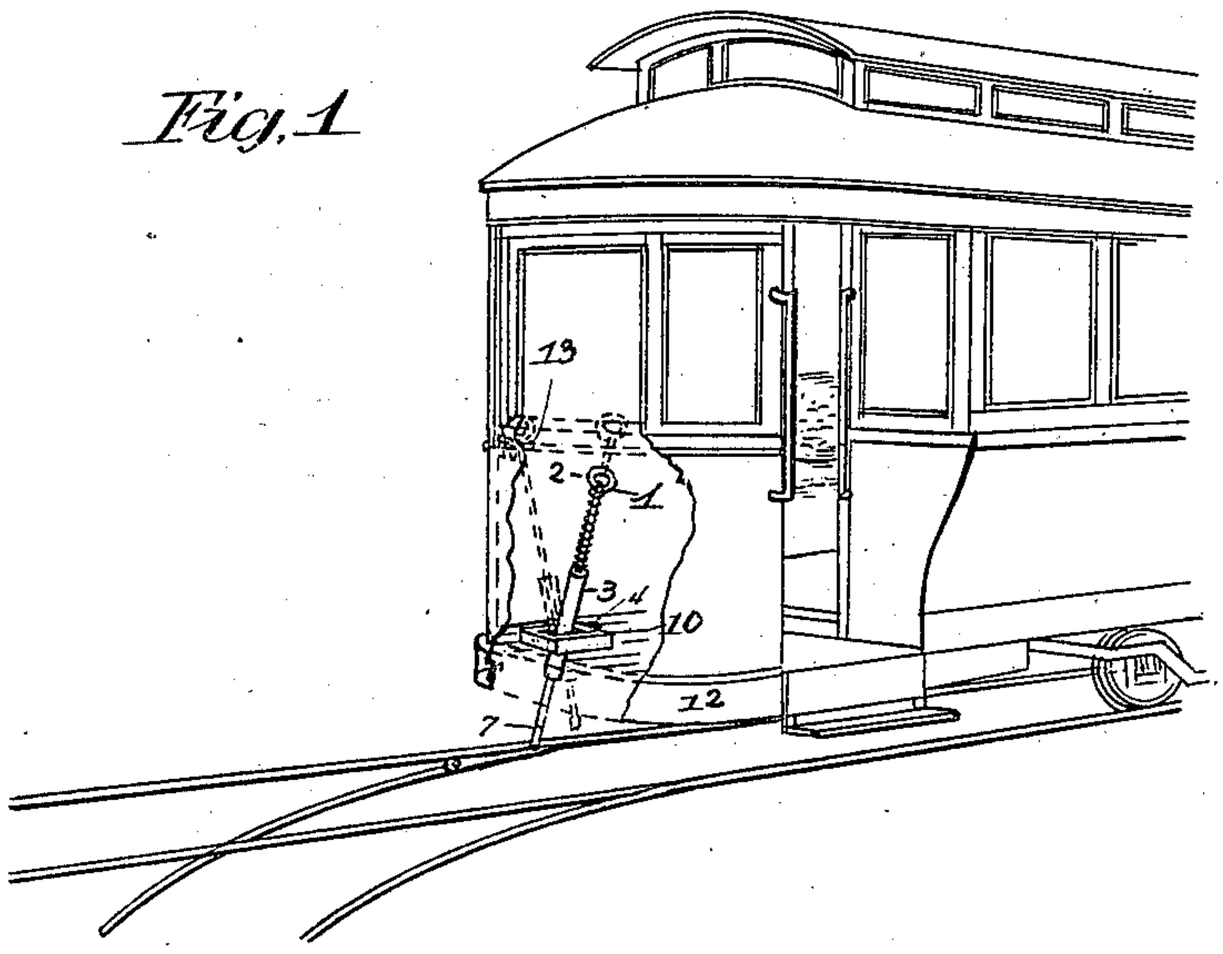


Fig. 2

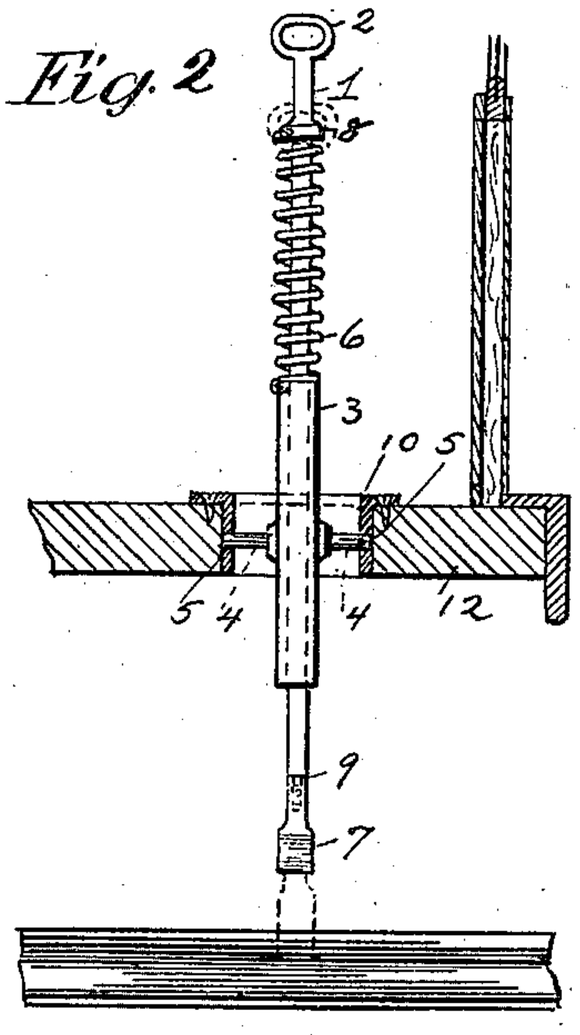


Fig. 3

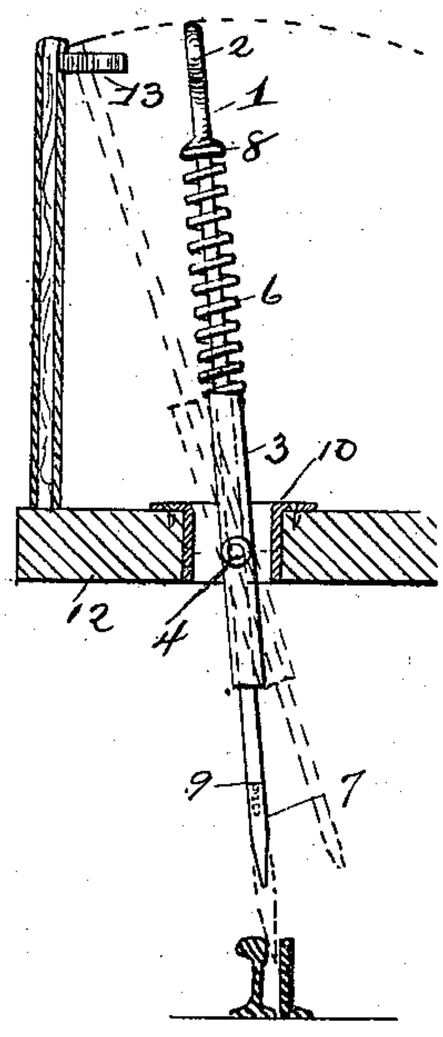
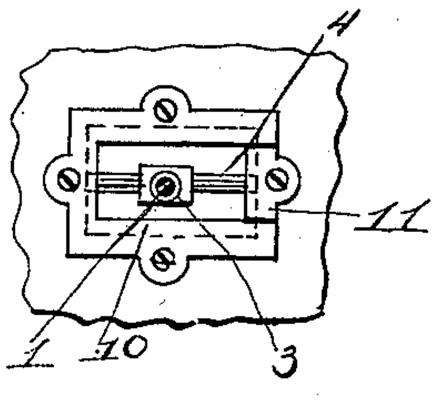


Fig. 4



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THOMAS WM. HEATLEY, OF CLEVELAND, OHIO.

SWITCH-TURNER FOR TRACTION-RAILWAY CARS.

SPECIFICATION forming part of Letters Patent No. 723,867, dated March 31, 1903.

Application filed November 3, 1902. Serial No. 129,819. (No model.)

To all whom it may concern:

Be it known that I, THOMAS WM. HEATLEY, a citizen of the United States, and a resident of Cleveland, county of Cuyahoga, State of Ohio, have invented certain new and useful Improvements in Switch-Turners for Traction-Railway Cars, of which I hereby declare the following to be a full, clear, and exact description, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention consists in a device for operating track-switches in the road-bed of traction-vehicles running upon rails, and is designed to provide means for turning or throwing the switch to connect with one rail or the other which will be accessible to the operator within the vehicle, so that he can throw the tongue without leaving his position as driver or motorman.

My invention consists in the spring-supported rod or bar which is provided with a wedge-shaped point adapted for insertion behind the switch-tongue and in the means for supporting the same upon the vehicle-platform, with the various details of construction, as hereinafter described, shown in the accompanying drawings, and specifically pointed out in the claims.

In the accompanying drawings, Figure 1 is a perspective view of a car-platform, showing the use of the device. Fig. 2 is a longitudinal section of platform, taken on pivotal point of rod. Fig. 3 is a transverse section thereof, and Fig. 4 is a plan view of the box on which the rod is supported.

In the views, 1 is the rod, provided with a curved handle 2, adapted to be readily grasped by the hand of the operator.

3 is a metal tube sleeved over the rod and mounted on the pins 4 in a swiveled bearing 5, so as to have freedom of movement from side to side. A spring 6 directly supports the rod upon the upper extremity of the tube. This spring is sufficiently long to permit the point 7 of the rod to reach the switch-tongue when forced down by the hand of the operator and also is elastic enough to withdraw it far enough from the track to prevent any danger of striking against the track as the platform pitches on account of the speed of the vehicle or roughness of the roads. A shoulder 8 rests upon the spring. The wedge-shaped edge is preferably detachable, as at 9, so that it can be renewed, if broken, or one size can be exchanged for another to adapt it to the height of the platform above the track, which is likely to vary in different vehicles. The edge of the rod can be maintained in a general line with the rail by means of the spring 6, if the ends of the spring are attached to the rod and tube, respectively. This will still permit the rod to be turned manually to the right or left on its center line within the tube, as the switch-tongue might require, and will return again to its normal position. The bearing is set in the platform 12 and consists in the box 10, inserted in an opening therein, and the bearing-pins are swiveled in the sides of the box. The bearing for one of the pivotal pins is preferably detachable, as seen at 11, so that the rod can be removed at pleasure.

A spring-keeper, as seen at 13, is attached at any convenient point of the wall of the vehicle within grasp of the hand of the operator.

The opening through which the rod passes should be large enough to form an observation-opening through which the track can be examined, so that the position of the switch-tongue and the entering-wedge of the rod can be clearly seen by the operator. At night a light could be placed underneath the car to illuminate the switch.

In use the rod is simply detached from its keeper and pressed downward and the point thrown to one side as far as necessary until it passes between the switch-tongue and the rail. When the switch has been set as desired, the spring will restore the rod, and it can be again fastened in position.

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

1. The combination with a platform of a railway-vehicle, of a freely-movable switch-operating rod provided with a wedge-shaped point, a metal tube sleeved upon said rod in which the rod is slidingly and rotatably mounted, an open box or frame in the platform, a swiveled support for the tube in said box, a spring adapted to support the rod adjustably in said tube, and normally raise the rod out of engagement with the track, and a handle on said rod by means of which the rod

can be rotated in its tube and the wedge-shaped point turned to open the switch, substantially as described.

2. In a switch-operating device, the combination with a platform provided with an opening, of a rod provided with a wedge-shaped point, a swiveled bearing for the rod in said opening, in which the rod is longitudinally and rotatably movable, a handle on the rod by means of which the wedge-shaped point can be turned to open the switch, means for normally maintaining the wedge-shaped point in line with the track-rail, and automatic means for raising the rod and point out of engagement with the track when released by the operator, substantially as described.

3. The combination with a platform of a railway-vehicle of a switch-operating-rod, a metal tube sleeved thereon, a spring adapted to support the rod adjustably on said tube, an open box or frame in said platform, and a swiveled support for the tube in said box, substantially as described.

4. In combination, a switch-rod, a car-platform, and means for adjustably securing the rod in said platform, operatively accessible to the operator, substantially as described.

5. In combination, a switch-rod, a platform provided with an opening for operatively attaching the rod to the platform, and a bearing within said opening, substantially as described.

6. In combination, a switch-rod, a platform, provided with an observation-opening, a swiveled bearing within the opening and means for compressibly attaching said rod to said bearing, substantially as described.

7. In a switch-operating device, the combination with a platform provided with an opening, a rod provided with a wedge-shaped point and vertically movable in said opening, a swiveled bearing for said rod in said opening and resilient means for maintaining the edge of the rod in line with the track.

8. In a switch-operating device the combination with a platform provided with an observation-opening, a metal box therein, a tube in said box, pins in said tube pivoted in said box, a switch-operating rod slidingly mounted in said tube, a coiled spring upon said rod resting upon the upper end of said tube, and secured to the upper end of the rod, and a detachable point for the rod.

In testimony whereof I hereby set my hand this 20th day of October, 1902.

THOMAS WM. HEATLEY.

Witnesses:
WM. M. MONROE.
GEO. W. SHAW.