

O. DMEN.
 SWITCH THROWING DEVICE.
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1,061,457.

Patented May 13, 1913.

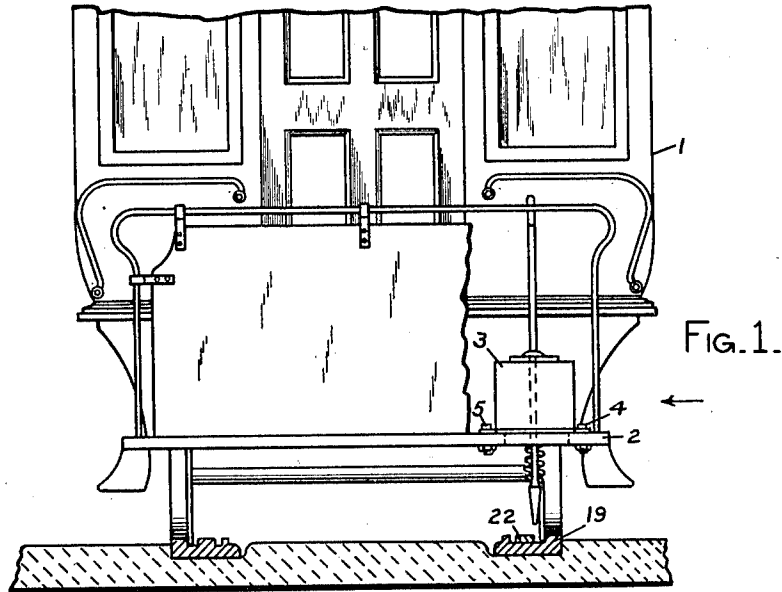
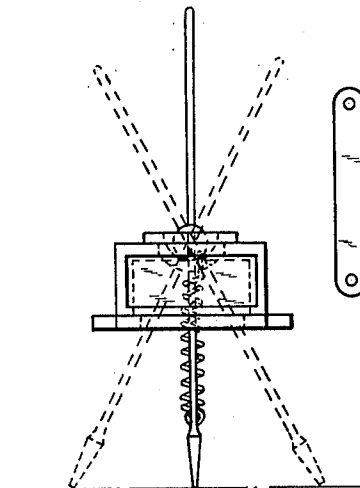


FIG. 3.



WITNESSES:

George T. Whitney.
Lillian L. Phillips.

FIG. 4.

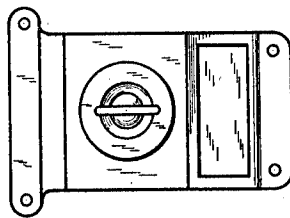
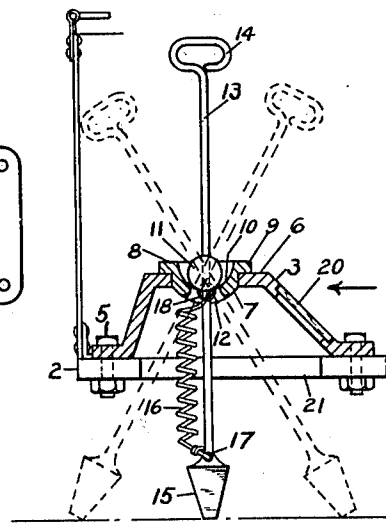


FIG. 2.



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SWITCH-THROWING DEVICE.

1,061,457.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, OCTAVE DMEN, a citizen of the United States, and resident of the city of Rochester, in the county of Monroe and State of New York, have invented a new and useful Switch-Throwing Device, of which the following is a specification.

This invention relates to a switch throwing device, such as is used to change the movable tongue switch generally employed on tramways, from one position to another.

The primary object of this invention is to so construct a device of the character described that no care will be required to bring the car upon which it is mounted to a position exactly over the switch to be thrown.

Previous devices of the general character of applicant's invention have been of such a nature that considerable care was required in stopping the car upon which they were mounted in order to have the switch throwing device in such a position that the tongue could be reached. Applicant's device avoids such difficulty and consequently the device becomes usable in practical work.

Other objects and advantages will appear as the description of the device progresses.

In describing the invention in detail, reference will be had to the accompanying drawings upon which like characters of reference refer to like parts and in which,

Figure 1, is a view of applicant's invention applied to a car; Fig. 2, is a sectional elevation of the device looking in the direction of the arrow, Fig. 1, showing a fragment of a car on which it is mounted; Fig. 3, is an elevation of the device looking in the direction of the arrow Fig. 2; Fig. 4, is a plan view of the device.

The car 1 having the platform 2 has a supporting casing 3 attached thereto by means of the bolts 4 and 5. The casing 3 has a horizontal top plate 6 integral therewith, in which is formed the hole 7, having the circular cup shaped socket member 8 fitting therein. The member 8 has an overhanging shoulder 9 resting upon the top plate 6 of the casing 3. In the cup shaped depression 10 of the member 8, a ball 11 is placed, of such a size that it will not pass through the hole 12 in the socket member 8, but may revolve freely in the socket member. The ball 12 has a hole therethrough on its diametric line adapted to receive the rod 13, which can slide freely therein. The rod 13 has a handle 14 formed at its upper end and

a wedge shaped piece 15 at its lower end and is held in the position shown in full lines in Fig. 2, by means of the spring 16, fastened at one end through the hole 17 and at the other end by being attached to a ring 18 slipped through a hole in the ball 11. The tension of the spring is sufficient to normally keep the rod in the position as shown in Fig. 1, so as to clear the rail 19, but allows the rod to be depressed as desired.

The front of the casing 3 which is faced by the car driver has a glass 20 therein, thus allowing the operator of the bar to see the lower end of the bar at all times, and as the floor of the car is cut away as at 21, the bar may be moved about without obstruction.

When the driver of a car equipped with this device desires to move a switch tongue as 22, in the track, he brings the car to a stop so that the lower end of the bar will lie somewhere within three or four feet of the tongue to be moved. He then grasps the handle 14, and looking through the glass 20, inserts the lower end 15 of the bar between the rail 19 and the tongue 22, and twists it. As soon as the tongue has been moved, the bar will return to its normal position, as soon as released, by virtue of the spring 16, so that no further attention need be given the bar by the driver.

The dotted line positions of the bar in Fig. 2, gives some idea of the range of movement of the bar 13 longitudinally of the car and the dotted line positions of the bar in Fig. 3, of the range of movement transversely of the car.

In order to remove the switch throwing bar from the car, it is merely necessary to lift on the handle 14 and all parts except the casing 3 will be removed from the car. This is of great advantage as every driver may have his own switch throwing device for which he will be responsible.

Although applicant has herein illustrated and described his device as attached to one side of the front platform of the car, it is to be understood that he does not consider himself limited to such position for he may, if thought advisable, place it in any other advantageous position, or may locate a casing 3 at each corner of the car and have one bar and associated parts fitted in each casing, or one bar and associated parts common to all casings.

Having thus described the principle of the invention and described one specific em-

bodiment thereof, what I claim as new and desire to secure by Letters Patent is:—

1. In a switch throwing device, a car having a floor, a member having a transparent portion, and formed with an opening adapted to be attached to the floor of the car over the opening formed therein, a socket member having an overhanging shoulder fitting in the opening in said member, said socket member formed with an opening, a ball adapted to rotate in said opening formed with an opening therethrough, a rod fitting in said opening and formed into a handle at one end and into a wedge at the other, and a spring attached at one end to said rod at the wedge end and to said ball at the other end.

2. In a switch throwing device, a ball, a socket in which said ball is adapted to oscillate having an opening into which said ball extends, said ball formed with an opening therethrough, a rod adapted to slide in said opening, means for grasping said rod above the ball, said rod having a wedge below said ball, and resilient means between the ball and the rod adapted to raise the rod after being depressed.

3. In a switch throwing device, a socket member formed with an opening therethrough, a ball formed with an opening therethrough adapted to oscillate in said socket and extending into said first mentioned opening, a rod having means for

grasping it at one end and a wedge shaped member at the other slidably mounted in the opening in the ball, resilient means drawing the ball and wedge bearing end of the rod toward each other, means for supporting the socket member, and a transparent member also borne by said means.

4. In a switch throwing device, a socket member formed with an opening therethrough, a ball formed with an opening therethrough adapted to oscillate in said socket and extending into said first mentioned opening, a rod having means for grasping it at one end and a wedge shaped member at the other slidably mounted in the opening in the ball, resilient means drawing the ball and wedge bearing end of the rod toward each other, means for supporting the socket member.

5. The combination with a car, of a universal fulcrum carried by the car, and a switch rod carried by said fulcrum and adapted to be brought into engagement with a switch.

6. The combination with the platform of a car, of a universal fulcrum carried by said platform, said fulcrum having an opening therethrough, and a switch rod arranged to enter said opening.

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Witnesses:

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."