C. O'DONNELL.

STREET RAILWAY SWITCH OPERATING DEVICE.

APPLICATION FILED SEPT. 15, 1909.

966,116.

Patented Aug. 2, 1910.

2 SHEETS—SHEET 1.

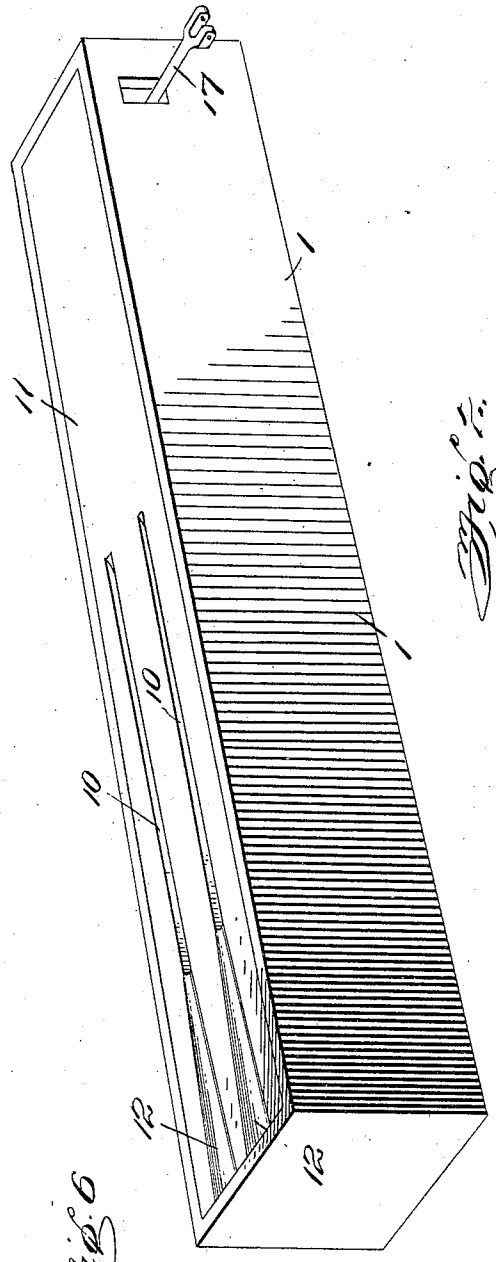

Fig. 1.

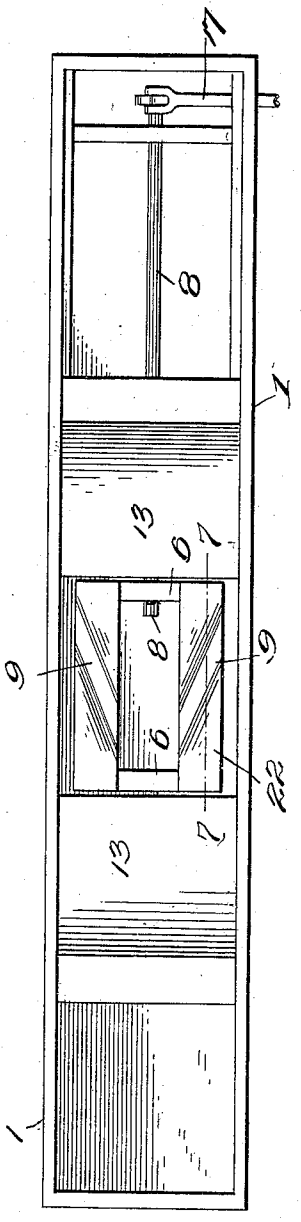

Fig. 2.

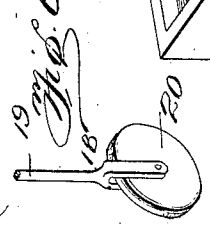

Fig. 6.

Witnesses

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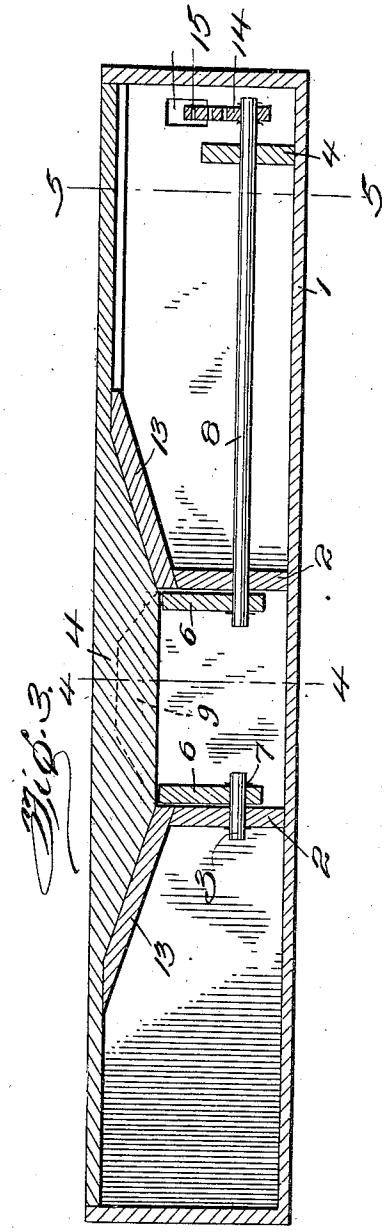

Fig. 3.

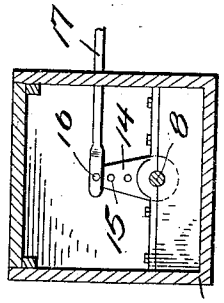

Fig. 5.

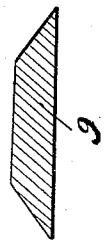

Fig. 7.

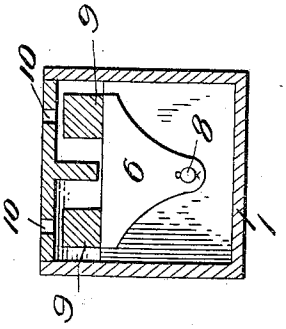

Fig. 4.

Witnesses

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CORNELIUS O'DONNELL, OF SACRAMENTO, CALIFORNIA.

STREET-RAILWAY-SWITCH-OPERATING DEVICE.

966,116. Specification of Letters Patent. Patented Aug. 2, 1910.

Application filed September 15, 1909. Serial No. 517,889.

To all whom it may concern:

Be it known that I, CORNELIUS O'DONNELL, a citizen of the United States, residing at Sacramento, in the county of Sacramento and State of California, have invented new and useful Improvements in Street-Railway-Switch-Operating Devices, of which the following is a specification.

This invention relates to switch throwing devices and has for an object to provide a device of this character that can be conveniently installed along the line of a track structure and disposed between the rails of the track in such position as will permit the device to be readily and conveniently operated by the motorman of a car.

Other objects and advantages will be apparent as the nature of the invention is better disclosed and it will of course be understood that changes within the specific scope of the claim can be made without departing from the spirit of the invention.

In the drawings forming a portion of this specification and in which like numerals of reference indicate similar parts in the several views, Figure 1 is a perspective view of my improved switch throwing device. Fig. 2 is a top plan view, with parts removed to more clearly illustrate the invention. Fig. 3 is a detail longitudinal section taken through the device. Fig. 4 is a detail section taken on the line 4—4 of Fig. 3. Fig. 5 is a detail section taken on the line 5—5 of Fig. 3. Fig. 6 is a detail perspective view of the actuating element. Fig. 7 is a detail section taken on the line 7—7 of Fig. 2.

My improved switch throwing device preferably consists of a rectangular casing 1 or any other suitable inclosure which may be conveniently installed between the rails of a track structure. A series of alining members 2 extend upwardly from the bottom of the casing 1, and as shown these members are provided with alining bearing passages 3. These passages are disposed in line with an apertured member 4 which is located adjacent to one end of the casing.

A rocking element 5 is located between the members 2 of the casing and as illustrated the said element is formed preferably from spaced members 6. One of the members 6 is provided with a trunnion 7 which is journaled in the passage 3 formed in one of the members 2. The other member 6 of the rocking element receives one end of a revoluble rod 8 which extends longitudinally of the receptacle. The other end of the rod 8 is journaled in the apertured member 4. The element 6 is provided with a pair of spaced longitudinally extending rails 9 which are disposed immediately beneath longitudinally extending slots or guide channels 10 which are formed in the cover 11 of the casing. The walls of the slots 10 adjacent to one end of the cover 11 terminate in substantially V-shaped grooves 12 which are formed in the cover.

A pair of upwardly or diagonally disposed plates 13 are secured to the members 2 of the casing. These plates have their upper edge portions disposed immediately beneath the cover 11 for a purpose to be hereinafter described.

The rod 8, at one end, is provided with a crank arm 14 in which is formed a series of adjusting openings 15. These openings are adapted to receive the retaining pin 16 of a switch throwing rod 17. While only one rod is shown upon the accompanying drawings, it will of course be appreciated that any desired number may be employed, depending entirely upon the number of switch points to be actuated.

It is obvious that any suitable well known actuating means can be employed for operating the rocking element of my device, but I preferably employ an element 18 as shown in Fig. 6 of the drawings. This element consists principally of an arm 19 whose lower end is bifurcated to receive a revoluble wheel 20. This wheel is relatively narrow and is adapted to travel in either one of the longitudinally extending slots 10 in the cover 11.

From the construction of the device herein described and shown, it is obvious that when the rod 19 is depressed by the motorman of the car, the wheel 20 of the actuating element can be operatively lodged in the desired slot 10. Incident to the provision of the angularly disposed plates 13, it will be understood that the wheel 20 is adapted to ride thereon and to come in contact with one of the rails 9. In this manner, the rocking element will be actuated effectively to impart sufficient rocking motion to the rod 8 to permit the rod 17 to be moved or operated sufficiently to throw the switch. The rails 9 of the rocking element are each provided with operatively inclined cam faces

22 which are provided for the purpose of facilitating the movement of the wheel 20 across the rails.

As hereinbefore stated, the actuating element 18 may be of any well known construction and any suitable well known means may be employed for holding the element operatively positioned upon the platform of a car so that the element can be readily operated by the foot of the motorman.

The cover is provided with a depending web 11′ which is confined between the plates 13. This construction is such that the cover is held against endwise movement to cause the same to assume a position at all times whereby the slots 10 will be accurately positioned above the rails 9 of the rocking element.

What I claim is—

In a switch operating device, a casing having spaced vertical members extending upwardly from the bottom thereof, plates extending angularly from the said members, a cover closing the upper end of the casing, a switch throwing rod, a rocking element operatively connected with the said rod and disposed between the said spaced members and supported thereby, spaced rails carried by the said rocking element and having oppositely beveled portions which open directly onto the said angularly extending plates, said cover having longitudinally extending slots formed therein and disposed immediately above the rails of the said rocking element, a depending web extending from the underside of the cover into the said casing and confined between the said angularly extending plates and engaged thereby whereby the cover is held against endwise movement, and car-carried means adapted to travel in the slots and upon the said angularly extending plates and on the said rails of the rocking element.

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

CORNELIUS O'DONNELL.

Witnesses:
W. L. Reed,
Antone Dutra.