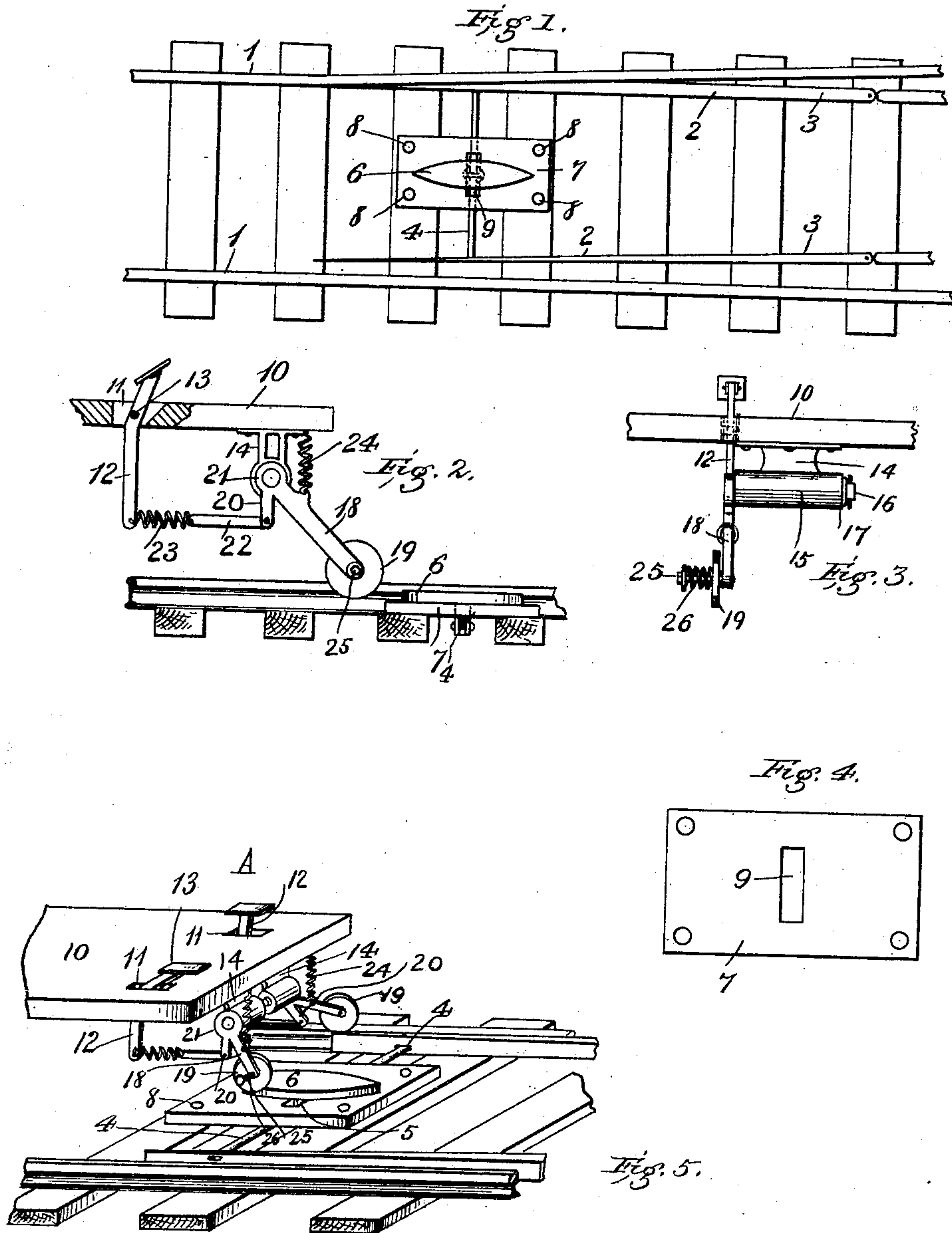


T. C. REYNOLDS.
SWITCH THROWER FOR ELECTRIC RAILWAYS.
APPLICATION FILED MAR. 24, 1909.

924,830.

Patented June 15, 1909.



Witnesses
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UNITED STATES PATENT OFFICE.

THOMAS C. REYNOLDS, OF TEXARKANA, ARKANSAS.

SWITCH-THROWER FOR ELECTRIC RAILWAYS.

No. 924,830.

Specification of Letters Patent.

Patented June 15, 1909.

Application filed March 24, 1909. Serial No. 485,399.

To all whom it may concern:

Be it known that I, THOMAS C. REYNOLDS, a citizen of the United States, residing at Texarkana, in the county of Miller and State of Arkansas, have invented certain new and useful Improvements in Switch-Throwers for Electric Railways, of which the following is a specification.

My invention relates to switch throwers and is especially adapted for use on electric railways.

My device works automatically and its main object is to enable the motorman to throw the switch without stopping, opening up, or leaving his car, and at the same time to dispense with the necessity of having a switchman at said switch as is now the usual custom.

With these and other objects in view my invention consists of the novel construction and arrangement of parts as are hereinafter described in this specification, illustrated in the accompanying drawings, and pointed out in the appended claims.

I attain these objects by virtue of the construction of my device, which, as brought out in the drawings, Figure 1 is a plan view of a railway to which my improved switch has been applied. Fig. 2 is a side elevation of a car platform carrying operating means to be used in opening or closing said switch. Fig. 3 is a front view thereof. Fig. 4 is a top plan view of the plate shown in Fig. 1. Fig. 5 is a perspective view of my device, complete.

My invention, in detail, is described as follows: The track 1, is provided with the ordinary switch 2, the rails 3, of which, are held parallel by any suitable means as a connecting rod 4. A projection or extension 5, extends upwardly from and at right-angles to said rod 4. Secured to the upper end of said extension 5, is a shift plug 6, of sufficient strength to withstand a considerable jar, the greatest dimension of which extends longitudinally with the rails 1. The side surfaces of said plug are outwardly curved, said curved surfaces coming together at a common point at each of the forward and rear ends thereof. A plate 7, is secured to two or more cross-ties by substantial means 8, said plate being provided with a transverse slot 9, in which said extension 5, is adapted to reciprocate. The platform 10, is provided with two rectangular holes 11, through which pass levers 12, fulcrumed by

means of pins 13. Suitable brackets 14, having formed at their lower portions bearings 15, are secured to the under side of the platform 10, of said car. Spindles 16, pass through said bearings 15, being held in place at their inner ends by means of nuts 17, or other means. Secured or formed to the outer end of each spindle is an arm 18, which are provided at their lower ends with rollers 19, of any desired diameter within limitations. A downwardly extending auxiliary arm 20, is formed to the collar 21, of each arm 18. Connecting together the lower end of each lever and its corresponding auxiliary arm 18, is a connecting rod and spring, 22 and 23, respectively. A spring 24, holds each of said arms 18, in raised position. They maintain this position when it is desired to pass up the main track, if the switch be so set that the car will run along the main track; but if the switch is open then the pedal A, is pressed; if the switch be closed and it is desired to take advantage of said switch then the pedal B, is pressed. The wheels 19, are mounted upon extended spindles 25, and are held in place by coil springs 26, encircling said spindles. The purpose of this arrangement is to allow the shift wheels to shift after said plug shifts the switch rails. The object of allowing the wheels to shift after striking said plug is to allow them to pass around the plug instead of over the same.

It is thought that the operation of my device will be readily deduced from the foregoing description and further explanation, therefore, unnecessary.

Having described my invention in detail, I may claim the right to make such alterations and modifications therein as do not depart from the spirit of my invention or fall without the scope of the appended claims, the particular arrangement shown in the drawings being for the purposes of illustration only.

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

1. In a device of the class specified comprising a plug whose movement is limited by means of a slotted plate, said plug adapted to shift a switch to which it is connected, means carried by a car to shift said plug, said means comprising an arm, a roller rotatably mounted at the lower end thereof, a bracket holding the upper end of said arm in a pivotal

manner, a downwardly extending auxiliary arm formed to the upper end of said first-mentioned arm, a foot lever suitably fulcrumed to the platform of said car, means of
5 connection between the lower ends of said foot lever and said auxiliary arm; said means including a spring, means comprising a spring to hold said first-mentioned arm in raised position, said foot lever being the
10 means whereby said roller is caused to contact said plug, substantially as shown.

2. In a device of the class specified comprising a plug whose movement is limited by suitable means, said plug adapted to shift a
15 switch to which it is connected, means carried by a car to shift said plug, said means

comprising an arm, a revoluble element mounted at the lower end thereof, means to hold the upper end of said arm in a pivotal manner, a downwardly extending member
20 formed to the upper end of said arm, a foot lever fulcrumed to the platform of said car, connecting means between the lower ends of said foot lever and said auxiliary member, means to hold said arm in raised position,
25 substantially as shown and described.

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

THOMAS C. REYNOLDS.

Witnesses:

JESSE P. FRICKS,
JAS. A. WALKER.