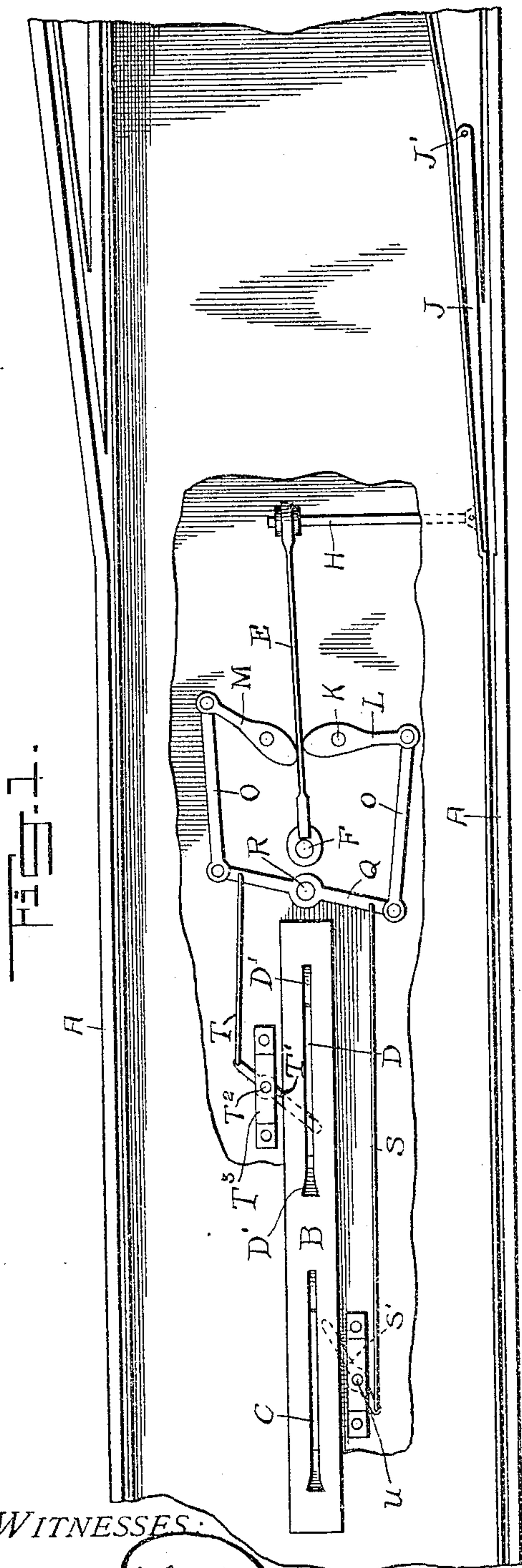


W. N. GLOSSER.
 DEVICE FOR OPERATING SWITCHES.
 APPLICATION FILED AUG. 31, 1909.

943,928.

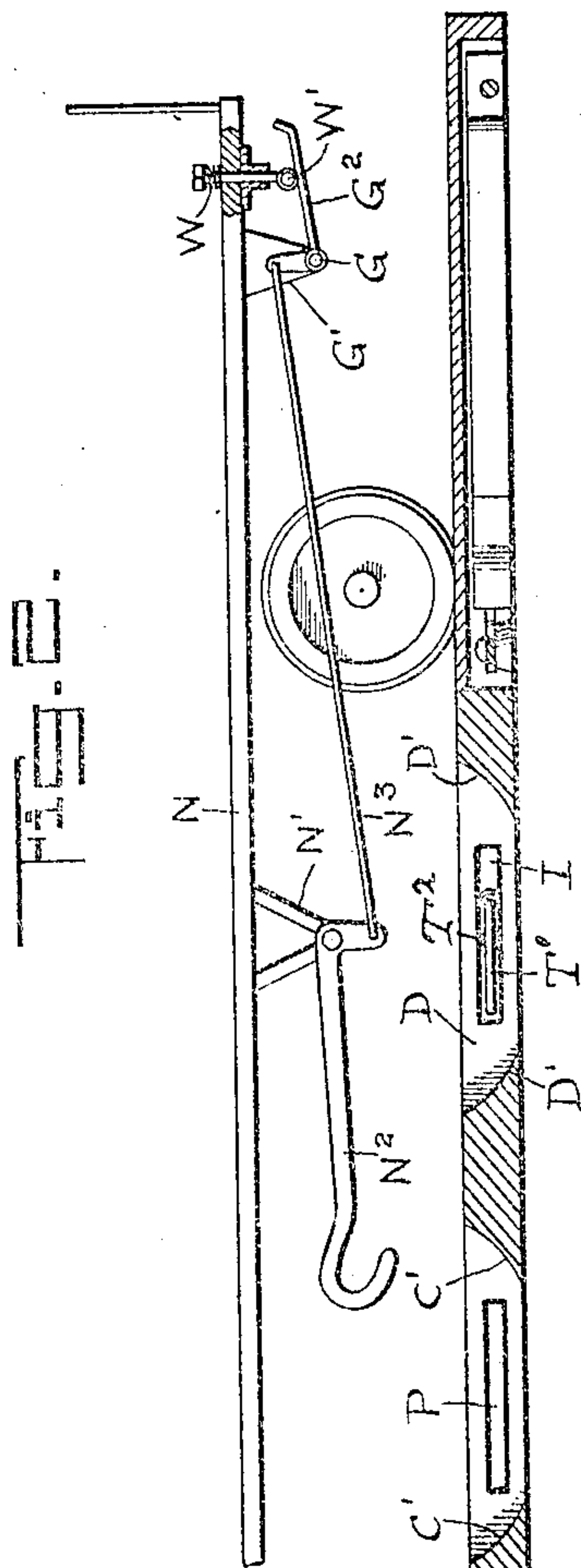
Patented Dec. 21, 1909.



WITNESSES:

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WILLIAM NICKLOS GLOSSER, OF DECATUR, ILLINOIS.

DEVICE FOR OPERATING SWITCHES.

943,928.

Specification of Letters Patent.

Patented Dec. 21, 1909.

Application filed August 31, 1909. Serial No. 515,468.

To all whom it may concern:

Be it known that I, WILLIAM N. GLOSSER, a citizen of the United States, residing at Decatur, in the county of Macon and State of Illinois, have invented certain new and useful Improvements in Devices for Operating Switches; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to new and useful improvements in switch throwing apparatus adapted to be actuated by means carried by a moving car.

The invention comprises various details of construction, combinations and arrangements of parts which will be hereinafter fully described and then specifically defined in the appended claims.

I illustrate my invention in the accompanying drawings, in which:—

Figure 1 is a top plan view of my invention, and Fig. 2 is a vertical sectional view showing parts in elevation.

Reference now being had to the details of the drawings by letter, A, A designate the main track rails of a railway and mounted in a suitable housing B between the tracks, which housing has elongated slots C and D therein, and E is a resilient bar through which a pin F passe forming a pivotal connection with said bar. A link H is fastened to the other end of the resilient bar E and its outer end is fastened to the switch point J which is pivoted at J'.

Pivotally mounted upon the pins K are the two cam levers L and M, one upon either side of said resilient arm. To the outer end of each cam lever is pivoted a link O which in turn are pivoted one to each end of the oscillatory lever Q mounted upon the pivot R. Rods T and S are pivotally connected one to each arm of the lever Q upon either side of its central pivotal point, the rod T being connected at one end to a lever T' which is pivoted at T² upon a bracket member T³ and the free end of the lever T' is adapted to have an oscillatory movement in a transverse slot I formed in said housing and shown clearly in Fig. 2 of the drawings.

Said lever T is adapted to intersect the slot D, the ends of which slot are inclined as at D', shown clearly in Fig. 2 of the drawings, and the ends of the slot C are also concaved or inclined, as also shown clearly in Fig. 2 of the drawings. The rod S is pivoted at one end to an oscillatory lever S' mounted upon a pivot U and said lever S' is adapted to oscillate within a transverse slot P formed transversely in the housing as shown.

Referring to Fig. 2 of the drawings, I have shown the platform N of a car having a bracket member N' projecting from the bottom thereof upon which a hook N² is pivotally mounted, the shank portion of said hook being angled and having a rod N³ connected to the short arm thereof. A crank shaft G is pivotally mounted upon the bracket arm G' depending from the bottom of the car and to said crank shaft the forward end of the rod N³ is connected. A depressible pin W is mounted in the platform of the car and its lower end has an anti-friction roller W' pivotally mounted thereon and adapted to bear against the long arm G² of the crank shaft. Said hook N² is pivotally mounted upon the car in such a position as to be in alinement with the slots C and D so that, when it is desired to throw the switch point, the operator by depressing the lever will throw the hook into one or another of the slots to engage the free end of the lever S' or T' and cause one or the other the latter to tilt upon its pivot for the purpose of transmitting an oscillatory movement to the lever Q to throw the one cam lever M or the other L against the resilient arm E, causing the latter to move upon its pivot and throw the switch point toward or away from one of the main track rails. It will be noted that one cam lever will move toward the resilient bar while the other moves away from it thus forming a fulcrum against which the resilient bar is adapted to bear and yield in the event of a lateral pressure in one direction being brought to bear against the switch point. By this mechanism, it will be noted that one cam lever or the other will hold the spring bar in a locked position until it is released.

From the foregoing, it will be noted that, by the provision of an apparatus as shown and described, a simple and efficient means is provided whereby the switch point may

be thrown by mechanism mounted upon a moving car passing over the switch throwing device.

What I claim to be new is:—

- 5 1. In combination with a switch point, a pivotal resilient bar, link connections between said bar and switch point, pivotal cam levers mounted one upon either side of said resilient bar and adapted to bear alternately
10 against the same to cause the bar to tilt and throw the switch point, and means actuated by a moving car for operating said cam levers.
- 15 2. In combination with a switch point, a pivotal resilient bar, link connections between said bar and switch point, pivotal cam levers mounted one upon either side of said resilient bar and adapted to bear alternately
20 against the same to cause the bar to tilt and throw the switch point, an oscillatory lever, link connections between the same and said cam levers, means carried by a car and adapted to oscillate said lever to cause one
25 cam lever or the other to contact with said resilient bar and, through its connection with the switch point, to move the same.
- 30 3. In combination with a switch point, a pivotal resilient bar, link connections between said bar and switch point, pivotal cam levers mounted one upon either side of said resilient bar and adapted to bear alternately
35 against the same to cause the bar to tilt and throw the switch point, an oscillatory lever, trip levers, rod connections between the same and said oscillatory lever, and means carried by a car adapted to actuate said trip levers.
- 40 4. In combination with a switch point, a pivotal resilient bar, link connections between said bar and switch point, pivotal cam levers mounted one upon either side of said resilient bar and adapted to bear alternately
45 against the same to cause the bar to tilt and throw the switch point, an oscillatory lever, trip levers, rod connections between the same and said oscillatory lever, a pivotal hook

adapted to be mounted upon the bottom of a car, and means for tilting said hook to throw the same into engagement with one or another of said trip levers.

- 50 5. In combination with the rails of a railway, a pivotal switch point, a housing intermediate the rails, a resilient bar pivotally mounted between said rails, link connections between said bar and switch point, pivotal cam levers mounted one upon either side of
55 said resilient bar and adapted to alternately bear against the same, an oscillatory lever, links connecting the same with said cam levers, pivotal trip levers, rods connecting the same with the arms of said oscillatory
60 lever, said housing having vertical slots adapted to be intersected by the inner free ends of said trip levers, and a hook adapted to be carried by a car, and means for throwing said hook into the vertical slots in said
65 housing to engage said trip levers.

6. In combination with the rails of a railway, a pivotal switch point, a housing intermediate the rails, a resilient bar pivotally mounted upon said rails, link connections
70 between said bar and switch point, pivotal cam levers mounted one upon either side of said resilient bar and adapted to alternately bear against the same, an oscillatory lever, links connecting the same with said cam
75 levers, pivotal trip levers, rods connecting the same with the arms of said oscillatory lever, said housing having vertical slots with inclined ends and intersecting slots, the inner ends of said trip levers adapted to
80 swing within said intersecting slots, and a depressible hook adapted to be carried by a car and movable within said slots to engage the free ends of said trip levers.

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

WILLIAM NICKLOS GLOSSER.

Witnesses:

HENRY A. RODGERS,
S. R. MOFFETT.