

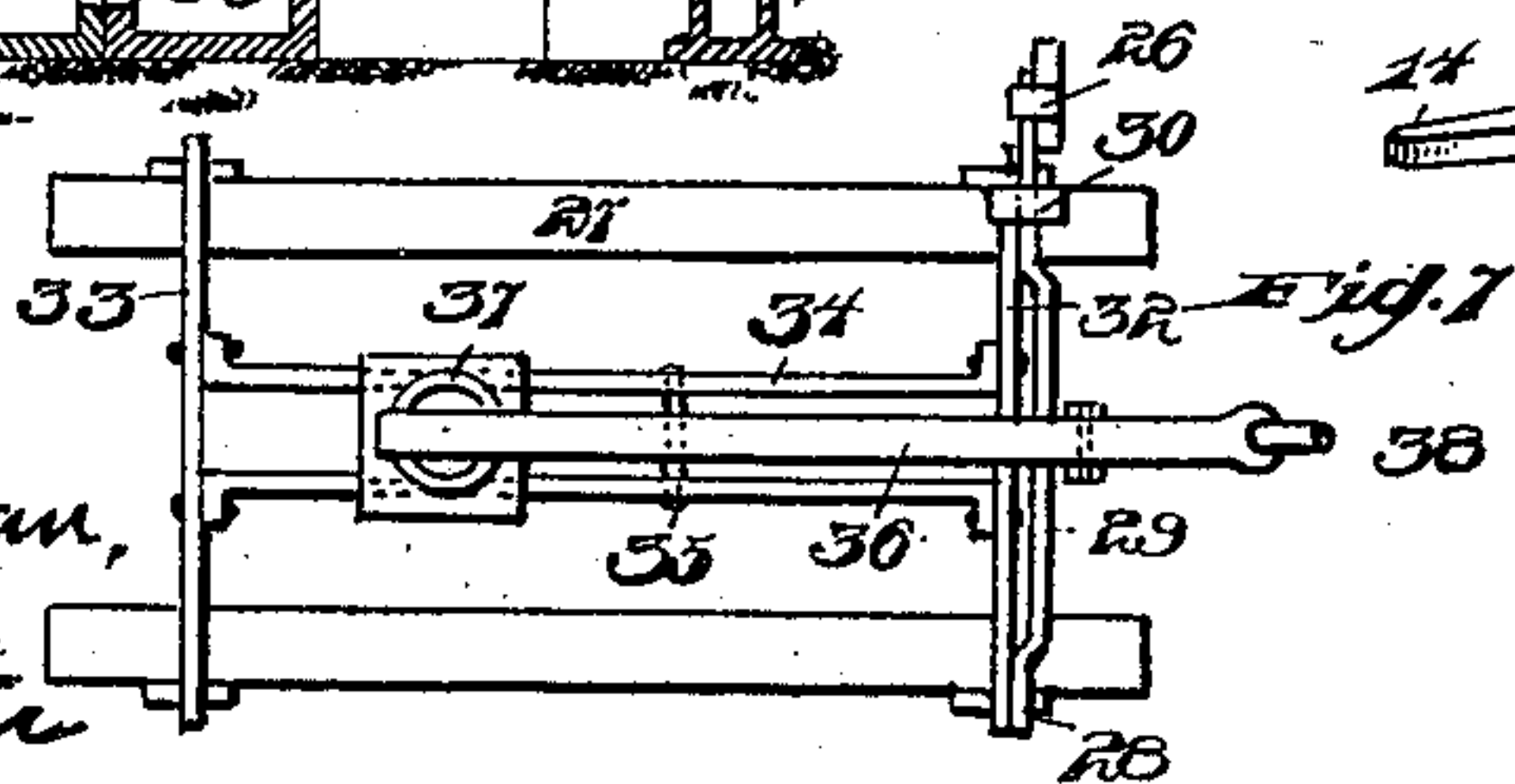
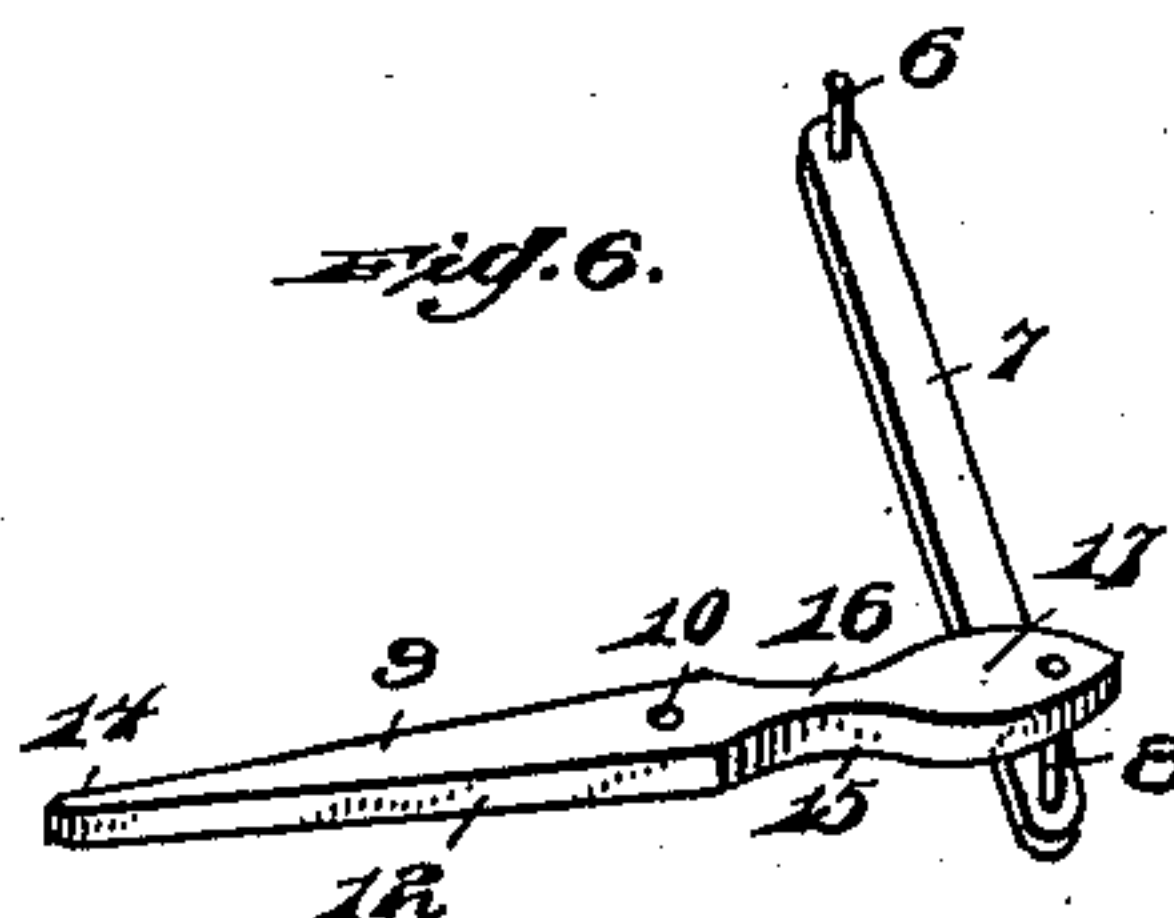
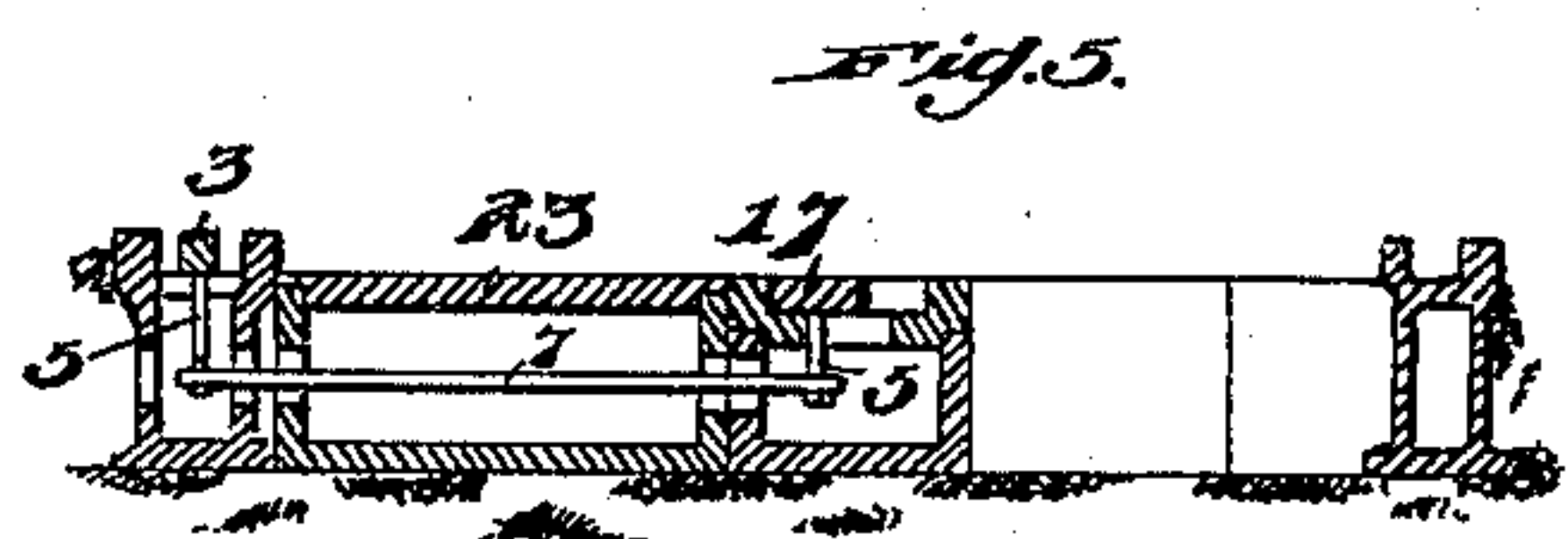
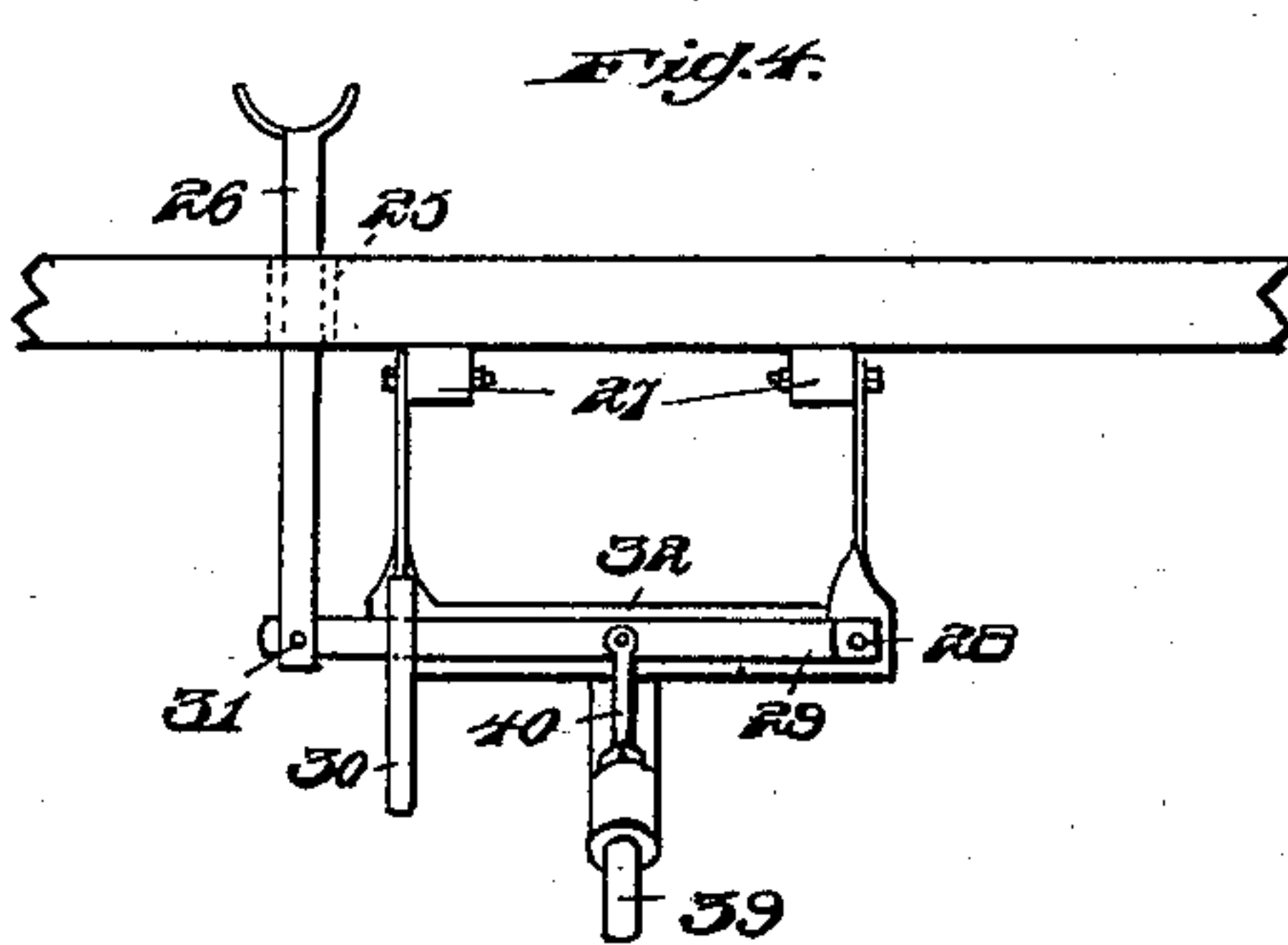
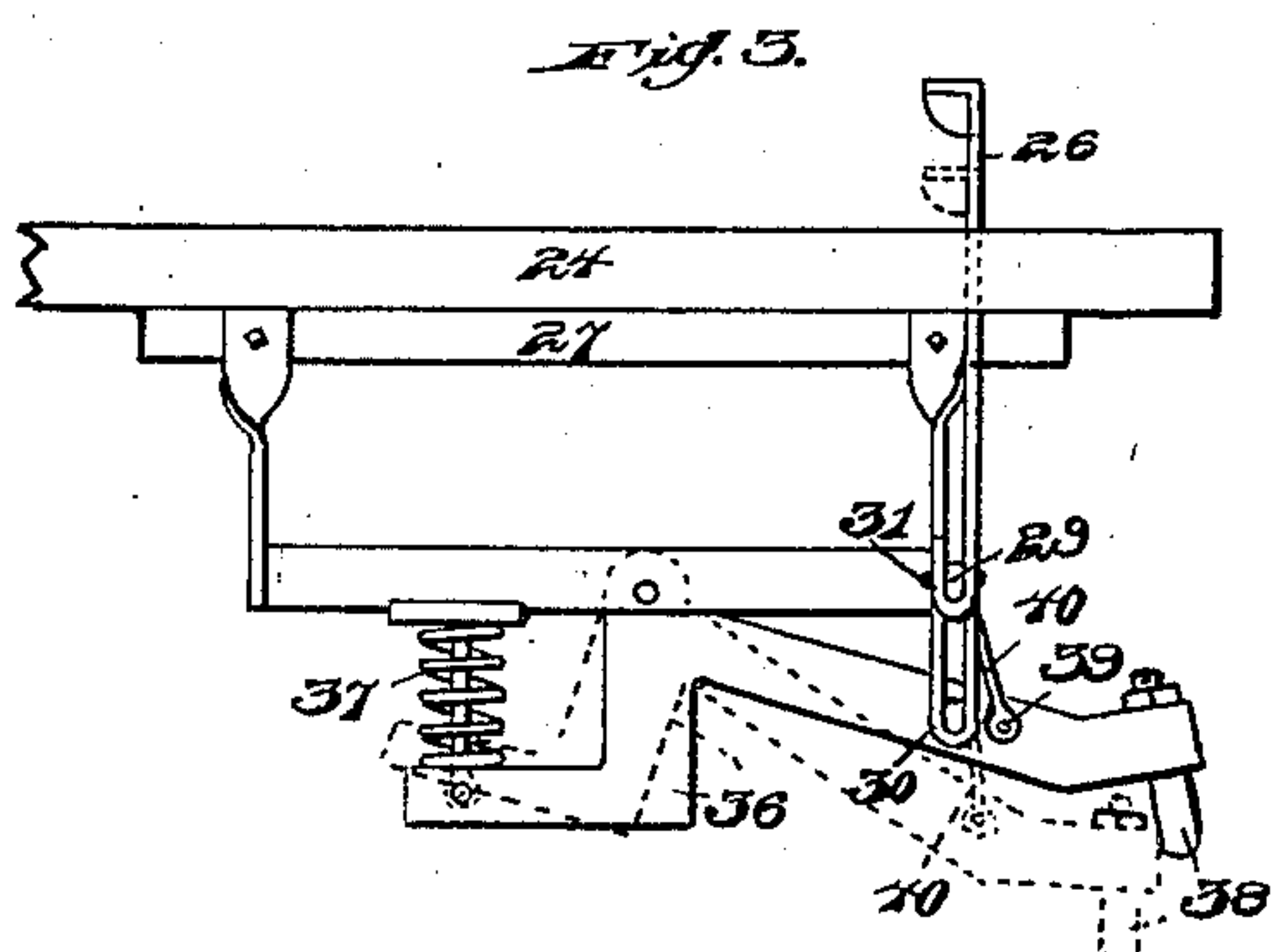
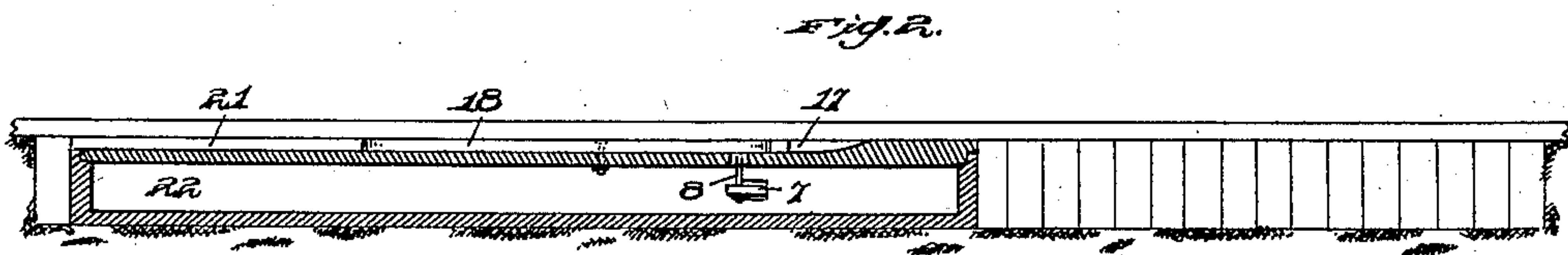
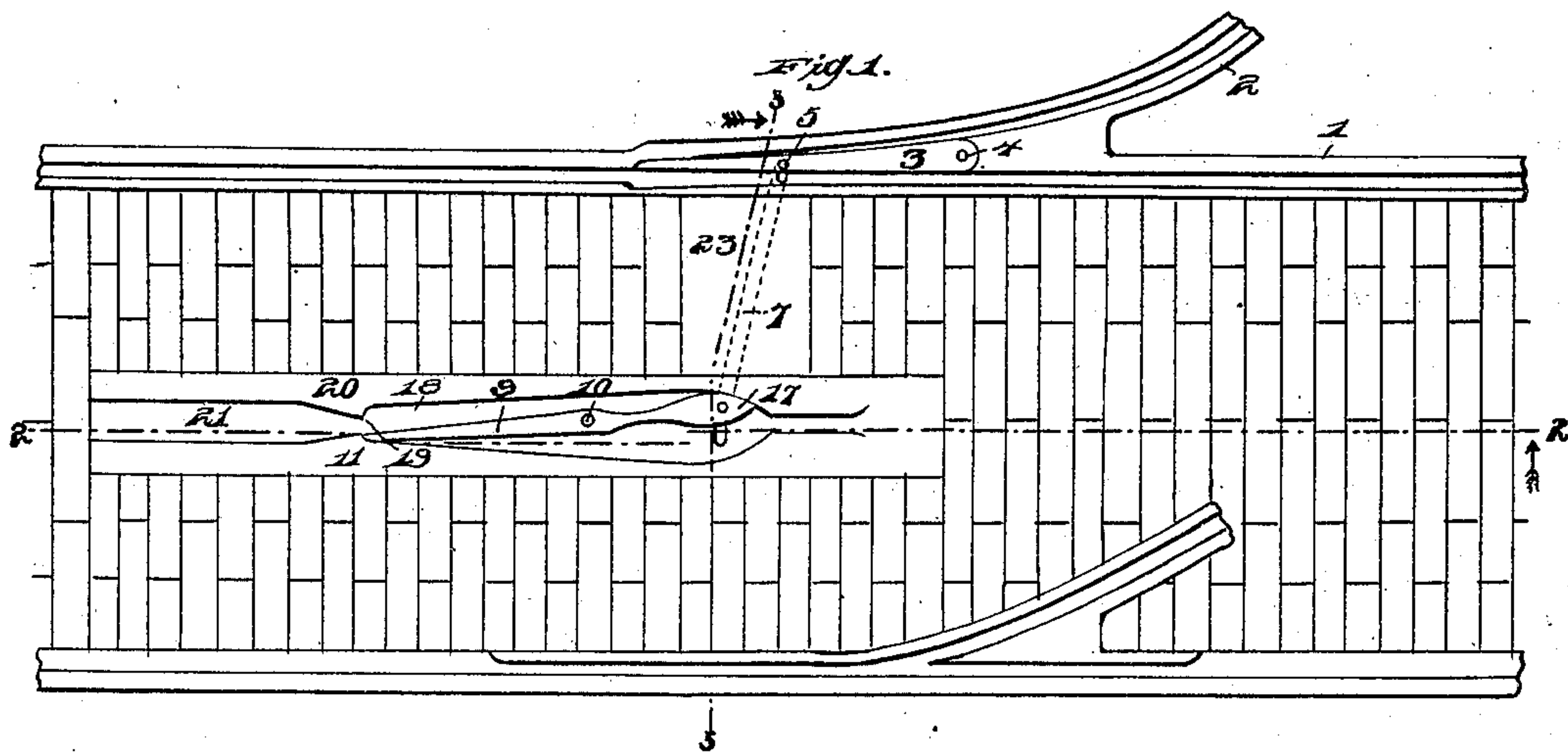
No. 687,123.

Patented Nov. 19, 1901.

C. CARPENTER.
SWITCH THROWING DEVICE.

(Application filed June 21, 1901.)

(No Model.)



Witnesses:

J. H. Hoffman,
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Inventor
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By
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UNITED STATES PATENT OFFICE.

CHALMER CARPENTER, OF SWISSVALE, PENNSYLVANIA.

SWITCH-THROWING DEVICE.

SPECIFICATION forming part of Letters Patent No. 687,123, dated November 19, 1901.

Application filed June 21, 1901. Serial No. 65,395. (No model.)

To all whom it may concern:

Be it known that I, CHALMER CARPENTER, a citizen of the United States of America, residing at Swissvale, in the county of Alle-

gheny and State of Pennsylvania, have invented certain new and useful Improvements in Switch-Throwing Devices, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to certain new and useful improvements in switch-throwing devices, and more particularly to that class that are mechanically operated from the platform of a car.

The invention has for its object the provision of novel means whereby the switch-tongue may be easily operated from the platform of a car in the opposite direction by a single foot-lever arranged on the platform of the car.

The invention has for its further object to construct a mechanism of the above-described class that will be extremely simple in construction, strong, durable, and comparatively inexpensive to manufacture, as well as highly efficient in its operation; furthermore, to arrange all the parts in such a manner that the same will not get out of order or become deranged.

With the above and other objects in view the invention consists in the novel combination and arrangement of parts to be hereinafter more fully described, and specifically pointed out in the claim.

In describing the invention in detail reference is had to the accompanying drawings, forming a part of this specification, wherein like numerals of reference indicate corresponding parts throughout the several views, and in which—

Figure 1 is a top plan view of a track and siding having my improved switch mechanism arranged thereto. Fig. 2 is a vertical longitudinal sectional view thereof, taken on the line 2 2 of Fig. 1 looking in the direction of the arrow. Fig. 3 is a side elevation of the forward portion of a car or platform having my improved operating mechanism attached thereto. Fig. 4 is a front elevation thereof. Fig. 5 is a transverse vertical sectional view of Fig. 1, taken on the line 3 3 looking in the direction of the arrow. Fig.

6 is a perspective view of the switch-throwing lever and rod. Fig. 7 is an underneath plan view of the switch-operating mechanism attached to a car.

In the drawings the reference-numeral 1 indicates the main track, and 2 the branch or siding, in which is secured the switch-tongue 3, pivoted at 4, said switch-tongue on its underface being connected at 5 to the upwardly-extending pin 6, secured to the rod 7, said rod carrying at its other end a pin 8, connected to the switch-operating lever 9, said lever being connected at 10 to the top plate 11. This switch-operating lever carries tapering sides 12, extending to a point 14, the sides of the operating-lever being also curved, as shown at 15, forming a contracted portion 16 and terminating in a head 17. The said top plate 11 has formed on its upper face a recess 18, in which the switch-operating lever operates. This recess 18 is contracted, as shown at 19, and communicates with walls 20, extending inwardly slightly at an angle, and forms a central recess. This top plate 11 forms the top of the casing 22, extending to the side of the switch-tongue, as shown at 23, the portion 23 being provided for the rod 7.

The reference-numeral 24 indicates the platform of the car, having arranged therein an opening 25, through which extends the foot-lever 26.

The reference-numeral 27 represents a hanger secured to the under face of the car, to which is pivotally secured at 28 an arm 29, operating in and extending through the guide 30, the latter being also rigidly secured to the hanger 27. This arm 29 is pivotally connected at 31 to the foot-lever 26.

The reference-numeral 32 indicates a cross-piece connecting the hangers 27. A similar cross-piece 33 is arranged in the platform of the car and is connected to the cross-piece 32 by means of braces 34. Between said braces is pivotally secured at 35 a lever 36. This lever 36 is normally held in an upright position by means of a spring 37, attached to the hangers. The forward end of said lever 36 carries a pin 38, adapted to operate the switch-throwing lever 18. This lever 36 is connected at 39 to the strap 40, engaging the arm 29.

The operation of my improved device is as follows: The foot-lever being depressed will

operate the arm 29 in the guide 30, thereby operating the lever 36 to the position shown in dotted lines in Fig. 3 of the drawings, which will permit the pin 38 to engage the side of the switch-operating lever 16. By releasing the foot-pressure upon the foot-lever the spring 37 will tend to return the parts to their normal position.

The many advantages obtained by the use of my improved device will be readily apparent from the foregoing description, taken in connection with the accompanying drawings.

It will be noted that various changes may be made in the details of construction without departing from the general spirit of my invention.

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

In a switch-operating mechanism, the com-

bination with a car, hangers arranged to said car, a foot operating-lever extending through the platform of said car, a lever 29 pivotally connected to said foot-lever, a guide through which said lever 29 extends, a lever 36, a spring arranged to the rear of said lever 36 to raise the same in an elevated position, a pin secured to the forward end of said lever 36, and connections between said lever 36 and said arm 29, in combination with a switch-operating lever arranged between the tracks, and connections between said lever and the switch-tongue for moving the same, all parts being arranged and operating substantially as described.

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

CHALMER CARPENTER.

Witnesses:

JOHN NOLAND,
E. E. POTTER.