

No. 848,590.

PATENTED MAR. 26, 1907.

F. S. GALLUP, C. SHANAHAN & F. L. & J. N. GALLUP.

CAR AND RAILWAY SWITCH.

APPLICATION FILED AUG. 9, 1906.

2 SHEETS—SHEET 1.

Fig. 1.

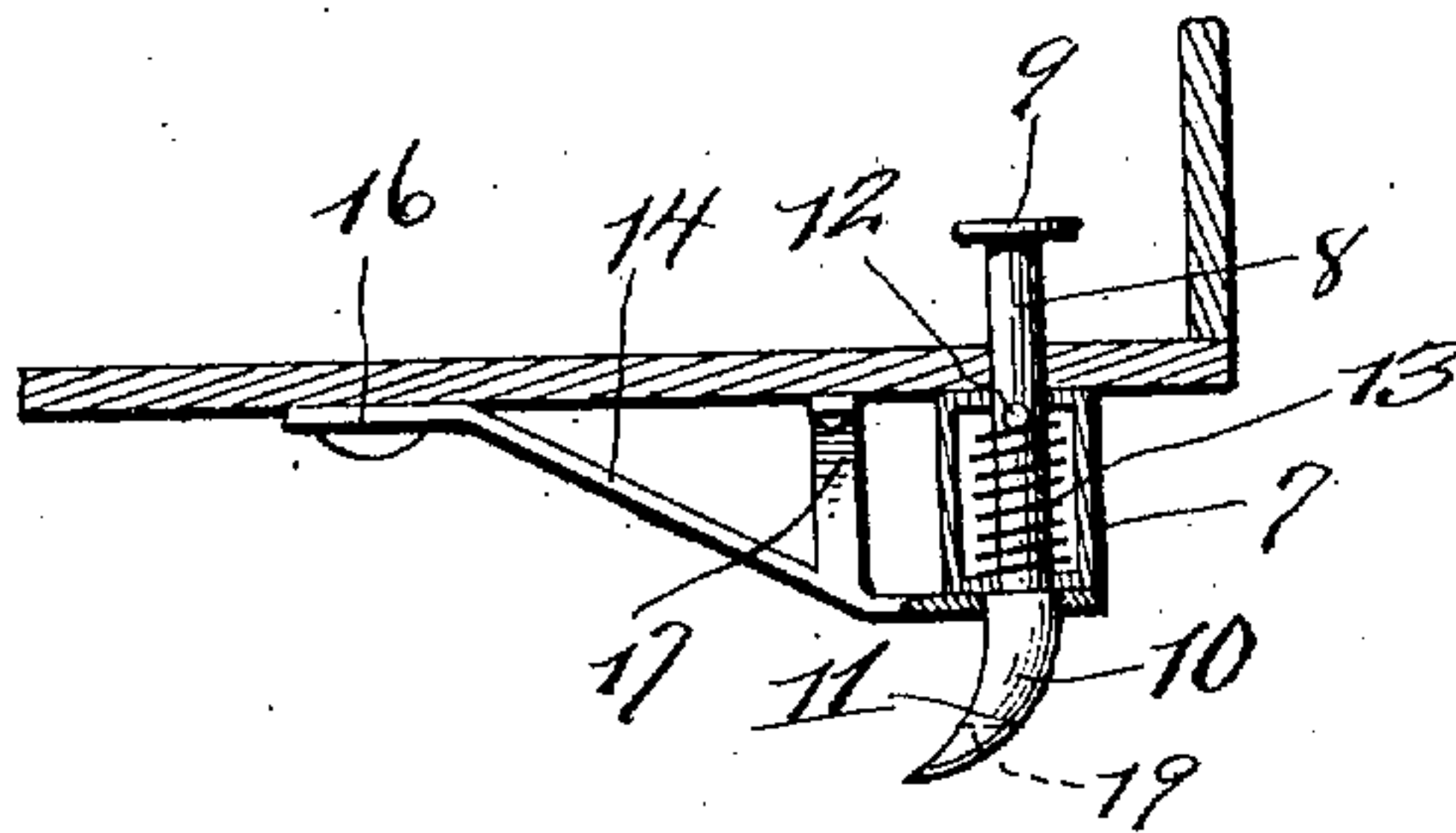
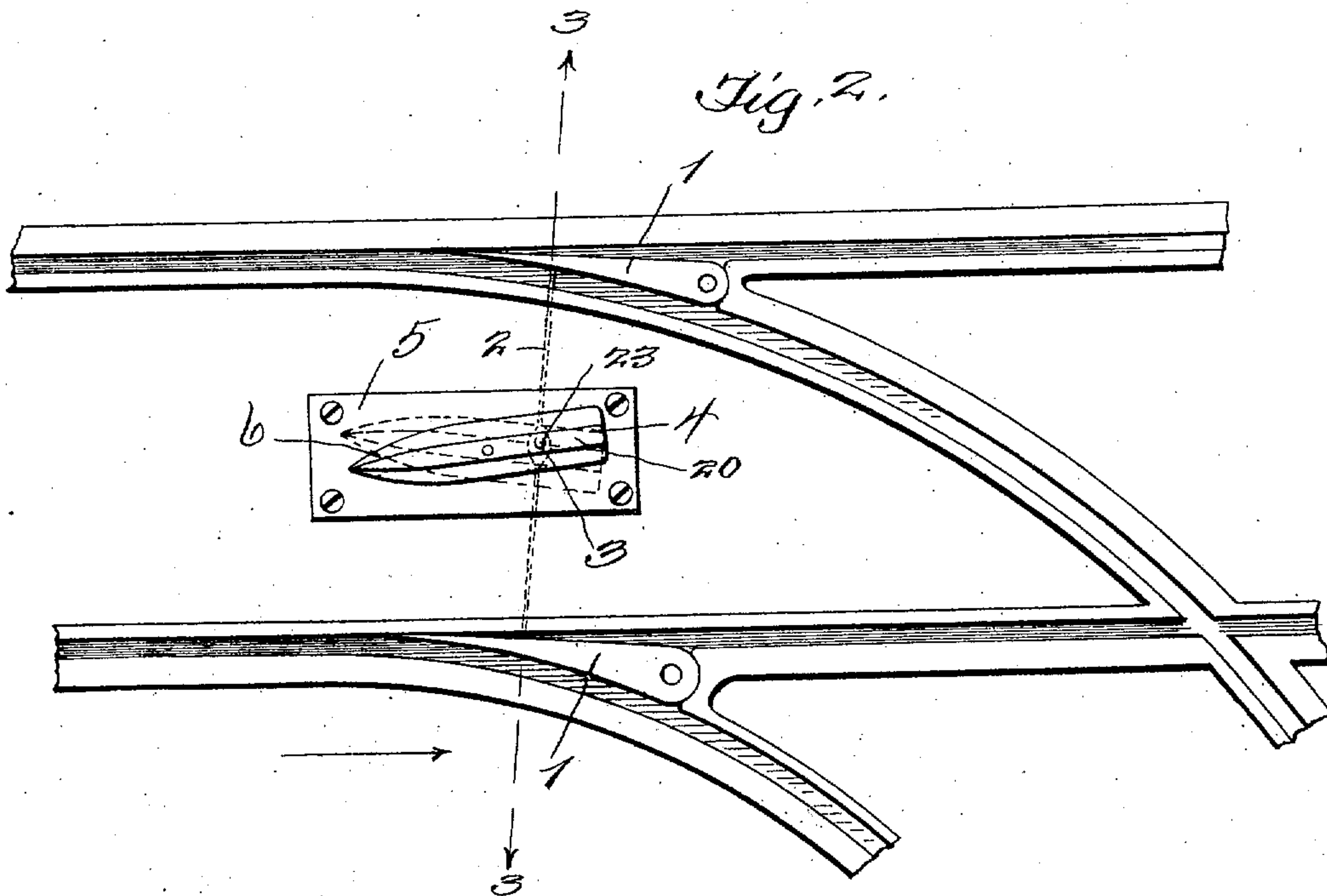


Fig. 2.



Witnesses

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2 SHEETS—SHEET 2.

Fig. 3.

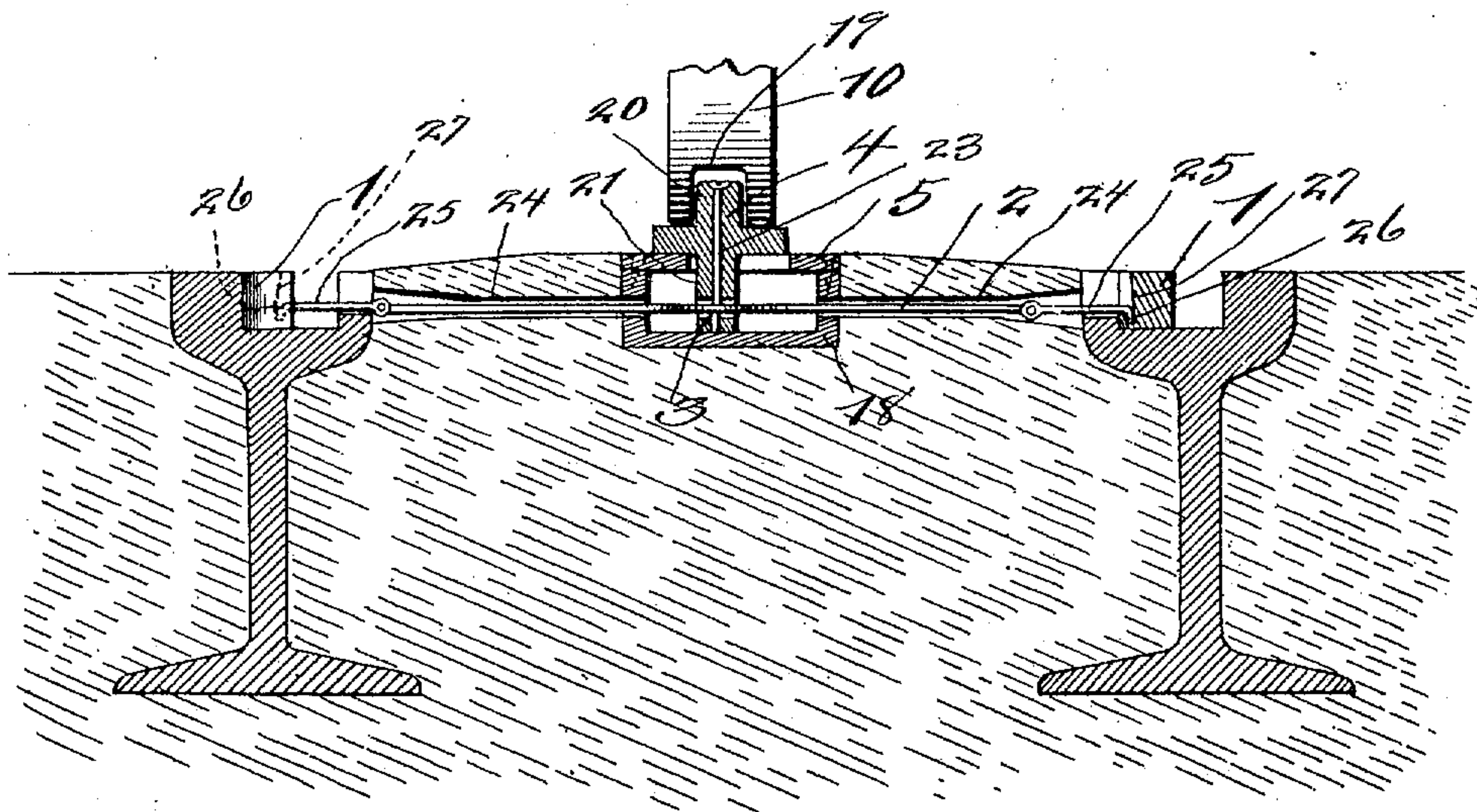
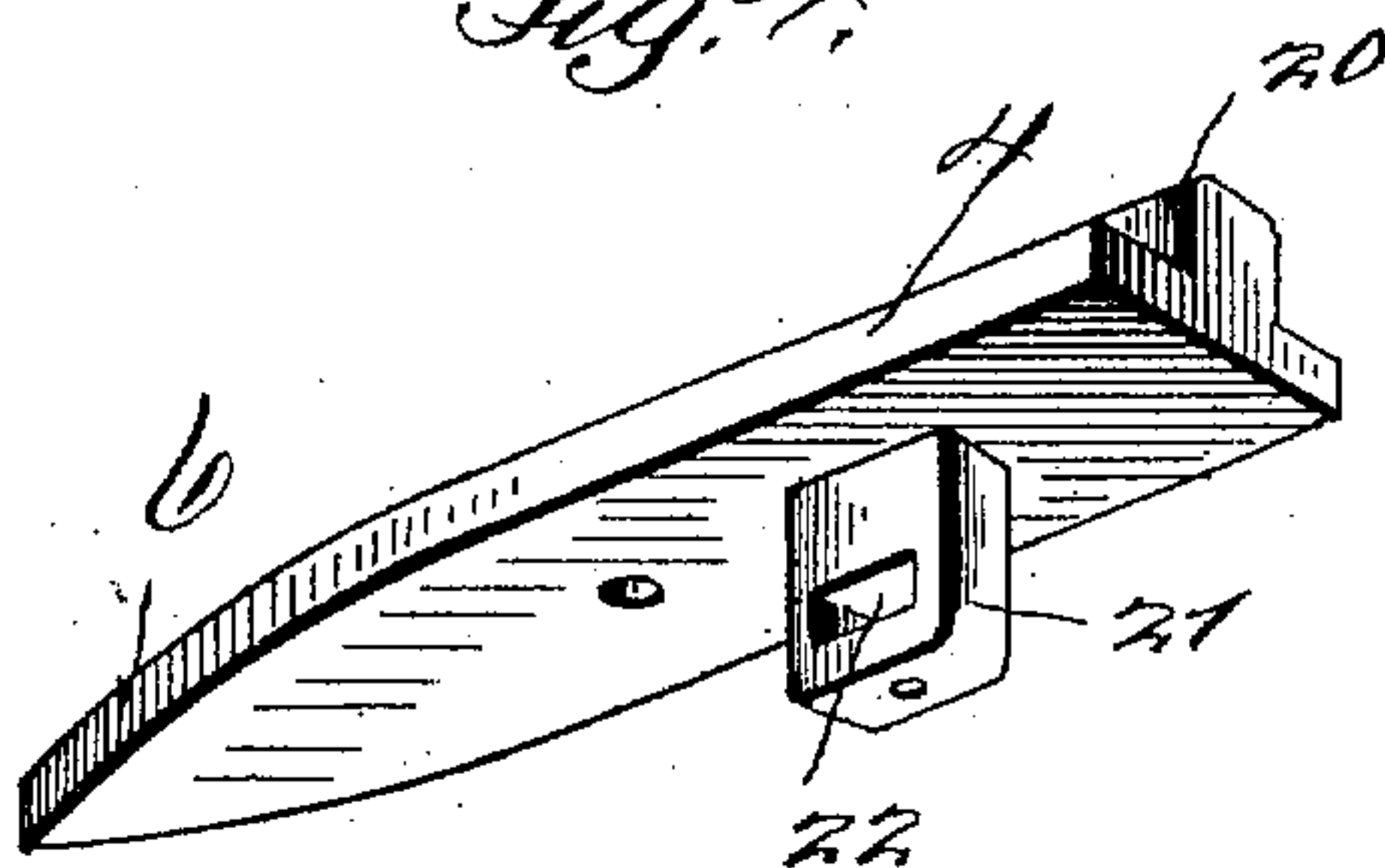


Fig. 4.



Witnesses

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# UNITED STATES PATENT OFFICE.

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## CAR AND RAILWAY SWITCH.

No. 848,590.

Specification of Letters Patent.

Patented March 26, 1907.

Application filed August 9, 1906. Serial No. 329,948.

*To all whom it may concern:*

Be it known that we, FLOYD S. GALLUP, CHARLES SHANAHAN, FREDERICK L. GALLUP, and JOHN N. GALLUP, citizens of the United States, residing at Hancock, in the county of Pottawattamie and State of Iowa, have invented a new and useful Car and Railway Switch; and we 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.

This invention relates to certain new and useful improvements in railway-switches; and its most essential object is to provide a device of this character comprising means fixed upon the bottom of the car, adjacent the forward end thereof, consisting of a spring-pressed bolt having a rearwardly-curved lower end adapted when downwardly pressed to operate the switch-block, which in turn operates the point-rails of the switch.

A car and railway switch equipped with this invention allows the motorman to throw the switch without leaving the car and at the same time allowing him to give his full attention to the power and brake, obviating the necessity of stopping the car for the purpose of throwing the switch with an iron bar.

Furthermore, the invention is simple in construction and very efficient and when manufactured in accordance with the showing of the drawings accompanying this specification may be easily adapted in practice.

This invention, as shown, is applied to a street-railway, but may be adapted to others as well without deviating from the invention.

This invention comprises, further, objects and combinations of elements, which will be hereinafter more fully described, and shown in the accompanying drawings, and the novel features thereof will be particularly pointed out by the appended claims.

To attain a full and correct understanding of the details of construction and combination of features, elements, and advantages, reference is to be had to the hereinafter-set-forth description, in connection with the accompanying drawings, wherein—

Figure 1 is a side elevation of a car, showing the switch-operating mechanism upon the bottom thereof. Fig. 2 is a top plan view of the switch-operating mechanism. Fig. 3 is a sectional view of a switch equipped with

the switch-block mechanism. Fig. 4 is a perspective view of the switch-block.

Making renewed reference to the accompanying drawings, wherein similar reference characters indicate the corresponding parts in the several illustrations by figures, 1 designates the point-rails of a railway-switch which have connected thereto a rod 2, which rod is fulcrumed, as at 3, to a switch-block 4, which in turn is pivotally mounted upon a bed-plate 5, which is fastened by screws or any other suitable means to a casing 18, which is embedded in the concrete in the center of the rails. This bed-plate forms a perfect smooth surface upon which the switch-block is adapted to have pivotal movement—that is, when a spring-pressed bolt is operated, causing the switch-block to be operated. This switch is never at any time lying parallel with the rails, but is always upon an angle which will either allow the switch to be opened or closed, allowing the car to travel either straight ahead or in direction at angles thereto. One end of the switch-block is tapered, as shown at 6. This is for the purpose of allowing the spring-actuated bolt, which is provided with a recess 19, to easily receive the rib 20 of the switch-block for throwing the point-rails.

The means for operating the switch-block comprises a cylinder 7, secured to the bottom of the car, having a presser-bolt 8 mounted therein, which is provided with a flaring head portion 9 to receive the foot of the operator when the operator wishes to throw the switch.

The lower end of the presser-bolt is provided with an enlargement 10, which is rearwardly curved, as at 11, so as to have a dragging action over the switch-block and to also allow the bolt to pass over any obstacle that may happen to be in the path of the approaching car.

Extending transversely of the presser-bolt is a pin 12, between which and the bottom of the cylinder a helical spring 13 is interposed which is for the purpose of throwing the bolt back to normal position, as shown in Fig. 1 of the drawings.

The cylinder is braced by a suitable brace-rod 14, one end of which is secured, as at 15, to the cylinder and the other secured, as at 16, to the bottom of the car, as shown in the drawings. This brace-rod is also braced by



the lateral-extending brace-rods 17 for the purpose of preventing accidental displacement of the cylinder and the presser-bolt contained therein.

5 The switch-block is provided with a depending lug 21, having a slot 22 therein to receive the rod 2, at which point it is pivoted by means of the bolt 23, as shown in Fig. 3 of the drawings. This lug 21 extends into the  
10 casing 18 and has a lateral movement therein, as will be readily observed from Fig. 3. The rod 2 has movement through the channels 24 upon each side of the casing 18 and is provided with link-latches 25, having down-  
15 wardly-extending portions 26, which are adapted to engage or disengage the recesses 27 of the point-rails 1, so as to allow for the ready insertion or removal of the said point-rails for cleaning purposes or to allow the  
20 old point-rails to be replaced by new ones, as will be readily observed.

From the foregoing the essential features and elements and the operation of the device, together with the simplicity thereof, will be  
25 plainly observed and when manufactured in accordance with the invention an inexpensive market will be obtained therefor.

Having thus fully described the invention, what is claimed as new and useful by the pro-  
30 tection of Letters Patent is—

1. In combination with a switch, comprising the point-rails, a switch-block, a bed-

plate therefor, a casing upon which the bed-plate rests, said switch-block having a depending lug extending into said casing and  
35 having a lateral movement therein, said lug having a slot, a rod fulcrumed therein the ends of which rod having means for engaging or disengaging the point-rails.

2. In combination with a switch, comprising the usual point-rails, a switch-block, a  
40 bed-plate therefor, a spring-actuated presser-bolt having a recess for throwing the switch-block, a casing upon which the bed-plate rests, said switch-block having a depending  
45 lug extending into said casing and having a lateral movement therein, said switch-block also having a longitudinal tapering rib to be received by the recess of the presser-bolt, said lug having a slot therein, a rod ful-  
50 crumed therein, the ends of which rod having link-latches for engaging or disengaging the point-rails, having recesses to receive said link-latches.

In testimony whereof we have signed our  
55 names to this specification in the presence of two subscribing witnesses.

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