

No. 670,384.

Patented Mar. 19, 1901.

J. W. CLAYTON.  
TROLLEY ROPE HOLDER.

(Application filed Nov. 1, 1900.)

(No Model.)

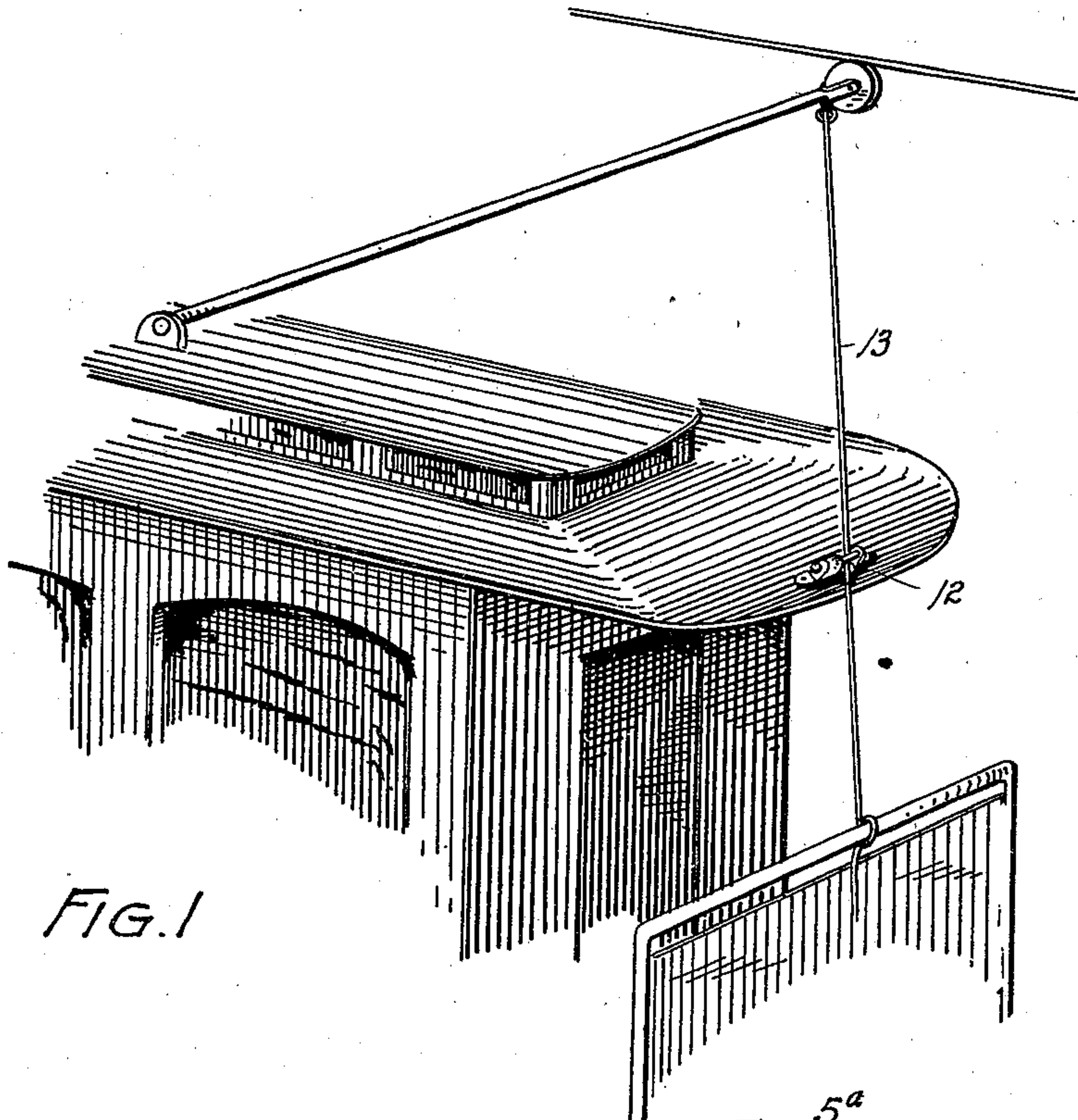


FIG. 1

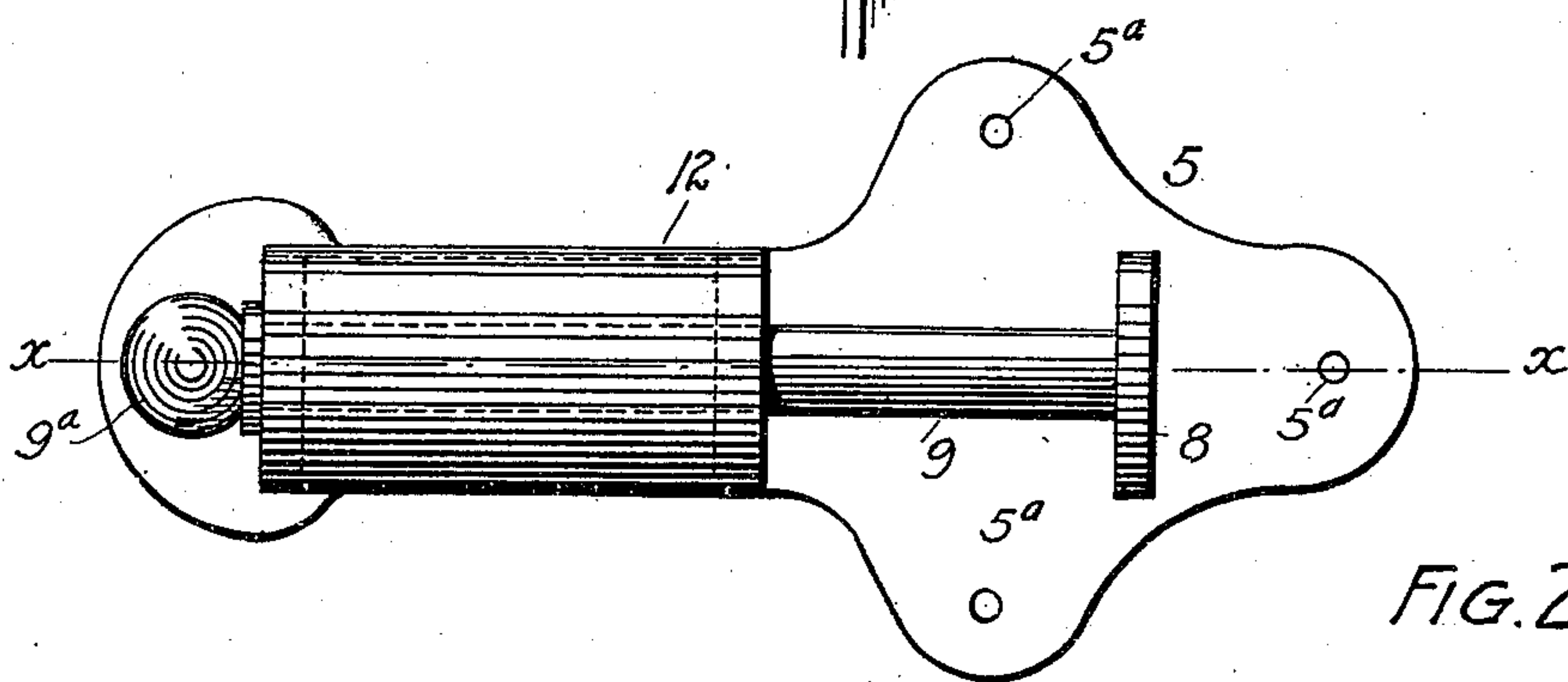


FIG. 2

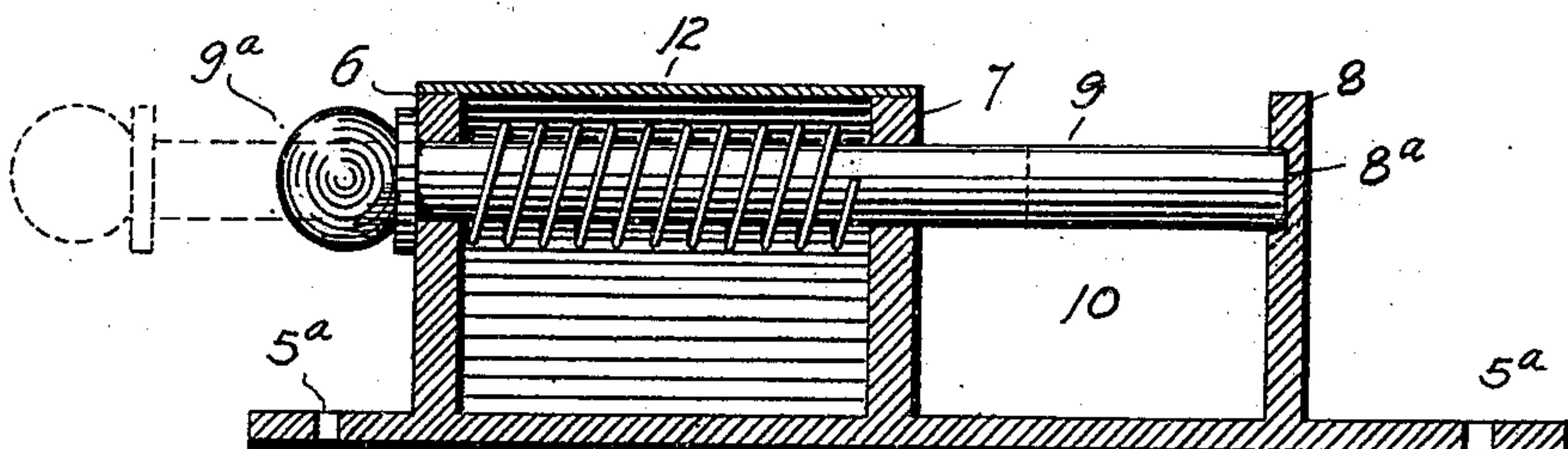


FIG. 3

WITNESSES:  
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# UNITED STATES PATENT OFFICE.

JOHN WILLIAM CLAYTON, OF DENVER, COLORADO.

## TROLLEY-ROPE HOLDER.

SPECIFICATION forming part of Letters Patent No. 670,384, dated March 19, 1901.

Application filed November 1, 1900. Serial No. 35,100. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN WILLIAM CLAYTON, a citizen of the United States of America, residing at Denver, in the county of Arapahoe and State of Colorado, have invented certain new and useful Improvements in Trolley-Rope Holders; and I do 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 figures of reference marked thereon, which form a part of this specification.

My invention relates to improvements in means for holding the trolley-rope in place on electric cars of overhead systems, whereby the rope is prevented from swinging around.

My improvement is attached to the car and forms a guide for the rope.

My object is to facilitate and render less difficult the work of the conductor by keeping the rope in place and also prevent the possibility of accident, since the rope is liable when blown by the wind or when very loose to coil around the necks of persons sitting on the rear seat of an open car as the trolley flies off the wire. Accidents of this character are particularly liable to occur in passing around curves.

The invention consists of the features hereinafter described and claimed, all of which will be fully understood by reference to the accompanying drawings, in which—

Figure 1 is a fragmentary perspective view of a car equipped with my improved device. Fig. 2 is a top or plan view of the device, shown in detail and on a larger scale. Fig. 3 is a section taken through the device on the line *x x*, Fig. 2.

The same reference characters indicate the same parts in the several views.

Let the numeral 5 designate the base-plate of a bracket provided with projections respectively designated by the numerals 6, 7, and 8. These projections are preferably cast integral with the base-plate. The parts 6 and 7 are provided with openings, through which passes a pin 9, one extremity of which engages a socket 8<sup>a</sup>, formed in the plate 8. The pin 9 is surrounded by a coil-spring located between the parts 6 and 7. One extremity of

this spring is connected with this pin, while its opposite extremity engages the projection 6, the arrangement being such that the spring normally holds the pin in the position shown in full lines in the drawings—that is to say, with one extremity engaging the socket 8<sup>a</sup>. The opposite extremity 9<sup>a</sup> of the pin normally projects beyond the part 6, so that the pin may be drawn outwardly to the position shown in dotted lines in Fig. 3 for the purpose of disengaging the pin extremity from the socket 8<sup>a</sup> and moving the said extremity far enough from the projection 8 to allow the trolley-rope to pass through or out of the space 10, where it is normally retained between the pin and the base-plate of the bracket.

When the device is in use, it may be attached to the roof of a car above the platform (see Fig. 1) by passing screws through the openings 5<sup>a</sup> of the base-plate or in any other suitable manner. In case the roof is too thin to make it practicable to use screws the device may be bolted to the roof by passing one or more bolts through the base-plate and roof and securing them by nuts. The device is located as near the extreme rear edge of the roof as practicable, the trolley-cord 13 being placed in the space 10 between the pin and base-plate, where it is confined, as heretofore stated. By forming a knot in the rope or by applying any other kind of a stop thereto below the device the upward movement of the trolley-pole when the trolley flies off the wire may be limited and controlled.

My improved device may be placed on any other part of the car as well as the roof. For instance, on cars provided with vestibules extending to the roof the device may be placed to the side of the car adjacent the platform or it may be attached to the dashboard. In this case a loop may be formed in the cord and slipped around the pin 9 between the projections 7 and 8 of the bracket.

A housing 12 is applied to the parts 6 and 7 of the bracket, whereby the spring is concealed and protected.

To release the trolley-cord, it is only necessary to pull the pin outwardly with one hand to the position shown by dotted lines in Fig. 3, when the cord may be removed by the other hand from the space 10 to enable the conductor to swing the trolley-pole or



when for any other reason it may be necessary or desirable to disengage the cord from the device. As soon as the pin is released the recoil of the spring returns it to its normal position shown by full lines.

My construction is especially useful on vestibule-cars. Under the present practice the window of the vestibule must be left open to allow the trolley-rope to pass through, the end of it being attached to some object on the platform, as the brake-crank, in which event it is usually necessary for the conductor to go outside the car and draw the rope through the window of the vestibule, and as he is liable to forget to detach the rope extremity before leaving the car there is usually considerable delay. When vestibules are needed, the open window lets in a great deal of cold and to this extent destroys the vestibule function. By placing my improved device on the outside of the dashboard and slipping a loop formed in the trolley-rope over the pin the rope may be securely held in place, whereby it is readily accessible in case the trolley flies off the wire.

Having thus described my invention, what I claim is—

1. A trolley-rope holder or guide comprising a bracket adapted to be attached to the car, and a spring-held pin carried by the bracket and normally adapted to close the space through which the rope passes.

2. A trolley-rope holder comprising a bracket composed of a base-plate adapted to be fastened to the car, and provided with three projections, two of which have registering openings, a pin passing through said openings, and a spring surrounding said pin between the apertured projections, and normally holding one extremity of the pin against

the third projection and closing a space between the pin and the bracket base-plate, through which space the trolley-rope may pass.

3. A trolley-rope holder and guide, comprising a base-plate having three separated projections, two of which are provided with openings, and a spring-actuated pin passing through said openings, and normally holding the pin against the third projection.

4. A trolley-rope holder and guide, comprising a base-plate having three separated projections, two of which are provided with openings, and a spring-actuated pin passing through said openings and normally holding the pin against the third projection, which is provided with a recess or socket to receive the pin extremity.

5. A trolley-rope holder and guide, comprising a base-plate having three separated projections, two of which are provided with openings, a pin passing through said openings, said pin being of sufficient length to have one extremity in engagement with one of the end projections of the plate, while the other extremity protrudes from the opposite end projection, a spring surrounding the pin between the two apertured projections, one extremity of the spring being attached to the pin while the other extremity bears against one of the apertured projections, and a housing applied to the apertured projections, and inclosing a chamber in which the spring is located.

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

JOHN WILLIAM CLAYTON.

Witnesses:

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A. J. O'BRIEN.