

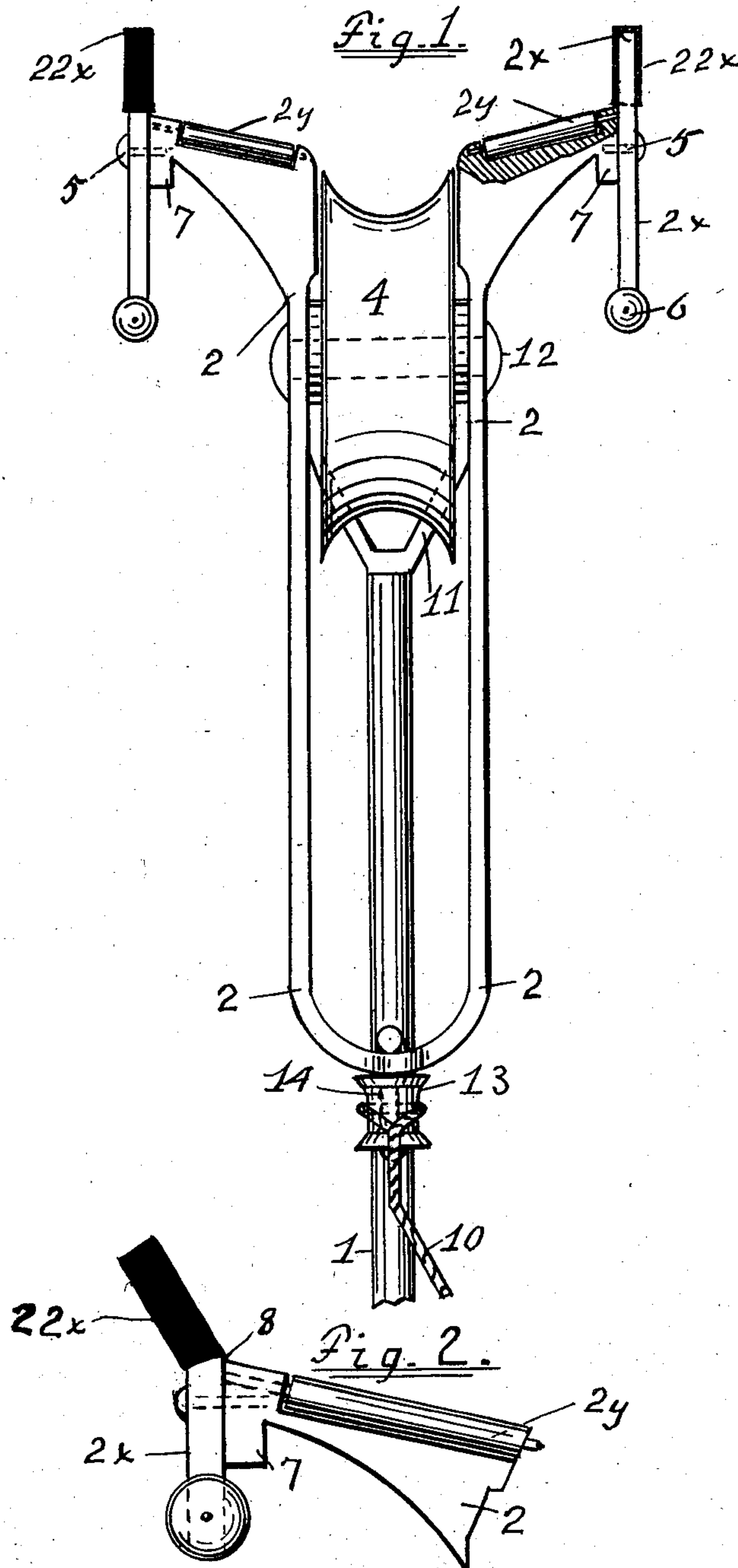
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PATENTED DEC. 8, 1903.

W. F. REICHENBACH.
TROLLEY GUARD AND FINDER.

APPLICATION FILED JUNE 13, 1903.

NO MODEL.



WITNESSES:

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WILLIAM F. REICHENBACH, OF ROCHESTER, NEW YORK.

TROLLEY GUARD AND FINDER.

SPECIFICATION forming part of Letters Patent No. 746,160, dated December 8, 1903.

Application filed June 13, 1903. Serial No. 161,303. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM F. REICHENBACH, a resident of Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Trolley Guards and Finders; 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 pertains to make and use the same.

The invention relates to trolley guards and finders, and has for its object to provide a simple, cheap, and efficient guard and finder.

The invention consists in the construction hereinafter described and pointed out.

In the accompanying drawings, Figure 1 is a partial side elevation of the improved device. Fig. 2 is a partial side elevation of a modification.

Numeral 1 indicates a trolley-staff operatively supported in any usual or desired manner, having a fork provided with guide-arms 2, having each an antifriction-roller 2^v with an upper surface slightly inclined toward and practically continuous with the surface of the groove in the trolley-wheel 4, substantially as represented.

Each arm 2 is provided at its outer end with a stud or pivot 5, upon which is pivotally supported a freely-swinging guide-arm extension or trip 2^x, having, if desired and preferably, a weight 6. This can be varied in size, and the length of the lower part of the trip can also be varied, it being sufficient if the construction is such as to insure a prompt return to normal position of the trip when released from any obstruction, such as a cross line-wire or stay-wire. This effect can be produced without a special weight by suitably proportioning the relative dimensions of the two parts of the extension; but a weight is preferred, whereby the lower part of the trip can be made shorter and be less exposed. It is obvious also that a spring could be substituted for the weight; but it is a purpose of the present improvement to dispense with springs in connection with the trolley head and guide to insure certainty of action and avoid the danger of entanglements and disarrangement.

7 denotes flanges on the outer ends of the

main guide-arms to furnish a guide for each trip to maintain it in the proper plane.

Obviously the extensions 2^x are adapted to swing in planes parallel to the wheel and to be moved out of the way of cross-wires or other obstructions, such as the arches of tunnels or bridges.

The upper end of each trip is provided with a cover 22^x, of insulating material, to avoid sparking and leakage.

To increase the lateral reach of the guiding-arms as a whole, the extensions may be made with an outward bend 8 above their support, as shown in Fig. 2.

10 denotes a cord or other suitable connection extending from the platform of a car or from the vicinage of the operator to the trolley-head and there connected to a yoke or fork 11, embracing the wheel within the arms 2 of the main fork, the several parts being connected by the axis 12 of the wheel.

The cord 10 is secured to the yoke 11 by a spool or block 13, of non-conducting material, said spool being loosely connected to the yoke by a pivot 14.

Instead of a cover 22^x the entire trip, or the upper part of it, may in some cases be made of non-conducting material, and in some cases I contemplate insulating those portions of cross or stay wires that are situated in the path of the trips. In some cases also the upper part of the fork having arms 2 will be made heavy enough to counterbalance the lower part and its attached cord, but leaving the extensions above the wheels.

Having thus described my invention, what I claim is—

1. The trolley-staff, the wheel, the yoke having the guide-arms, and insulating material situated above the wheel and wheel-supports and also above the arms to prevent passage of an electric current through the arms from cross-wires.

2. The trolley comprising a wheel, a yoke having laterally-extended guide-arms each with its upper surface inclined to and continuous with the peripheral surface of the wheel, a second yoke, the axis of the wheel passing through both yokes, a connection for controlling the trolley, and an insulating-block between said connection and its yoke.

3. The trolley-staff, the wheel, and the yoke having lateral guide-arms provided with anti-friction-rollers having their upper surfaces inclined to and continuous with the peripheral surface of the wheel.

4. The trolley-staff, the wheel, the yoke having lateral guide-arms provided with anti-friction-rollers having their upper surfaces inclined to and continuous with the peripheral surface of the wheel, and the guide extensions pivoted to said arms.

5. The trolley-staff, the wheel, the yoke having lateral guide-arms provided with anti-friction-rollers having their upper surfaces inclined to and continuous with the peripheral surface of the wheel, and the guide extensions pivoted to said arms, the extensions being flared outwardly.

6. The trolley-staff, the wheel, the yoke having lateral guide-arms provided with anti-friction-rollers having their upper surfaces inclined to and continuous with the peripheral surface of the wheel, the guide extensions pivoted to said arms, and provided with weights below the pivots.

7. The trolley-staff, the wheel, the yoke having lateral guide-arms provided with anti-friction-rollers having their upper surfaces inclined to and continuous with the peripheral surface of the wheel, and the guide extensions pivoted to said arms and comprising non-conducting material.

8. The trolley-staff, the wheel, the yoke having lateral-guide arms provided with anti-friction-rollers having their upper surfaces inclined to and continuous with the peripheral surface of the wheel, and the guide extensions pivoted to said arms, the latter being provided with flanges to guide the pivoted extensions.

9. The trolley comprising the wheel, the yoke having guide-arms terminating at the periphery of the wheel, guide-arm extensions pivoted to the arms to swing in planes parallel to the wheel and opposite the same.

10. The trolley comprising the wheel, a yoke having guide-arms terminating at the periphery of the wheel, guide-arm extensions pivoted to the arms to swing in planes parallel to the wheel and opposite the same, said pivoted extensions being prolonged below their pivots and such prolongations adapted to return them to normal situation from either of two directions.

11. The trolley comprising the wheel, a yoke having guide-arms terminating at the periphery of the wheel, guide-arm extensions pivoted to the arms to swing in planes parallel to the wheel and opposite the same, said pivoted extensions being prolonged below their pivots and such prolongations adapted to return them to normal situation from either of two directions, and a guide for each pivoted arm extension.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

WILLIAM F. REICHENBACH.

Witnesses:

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