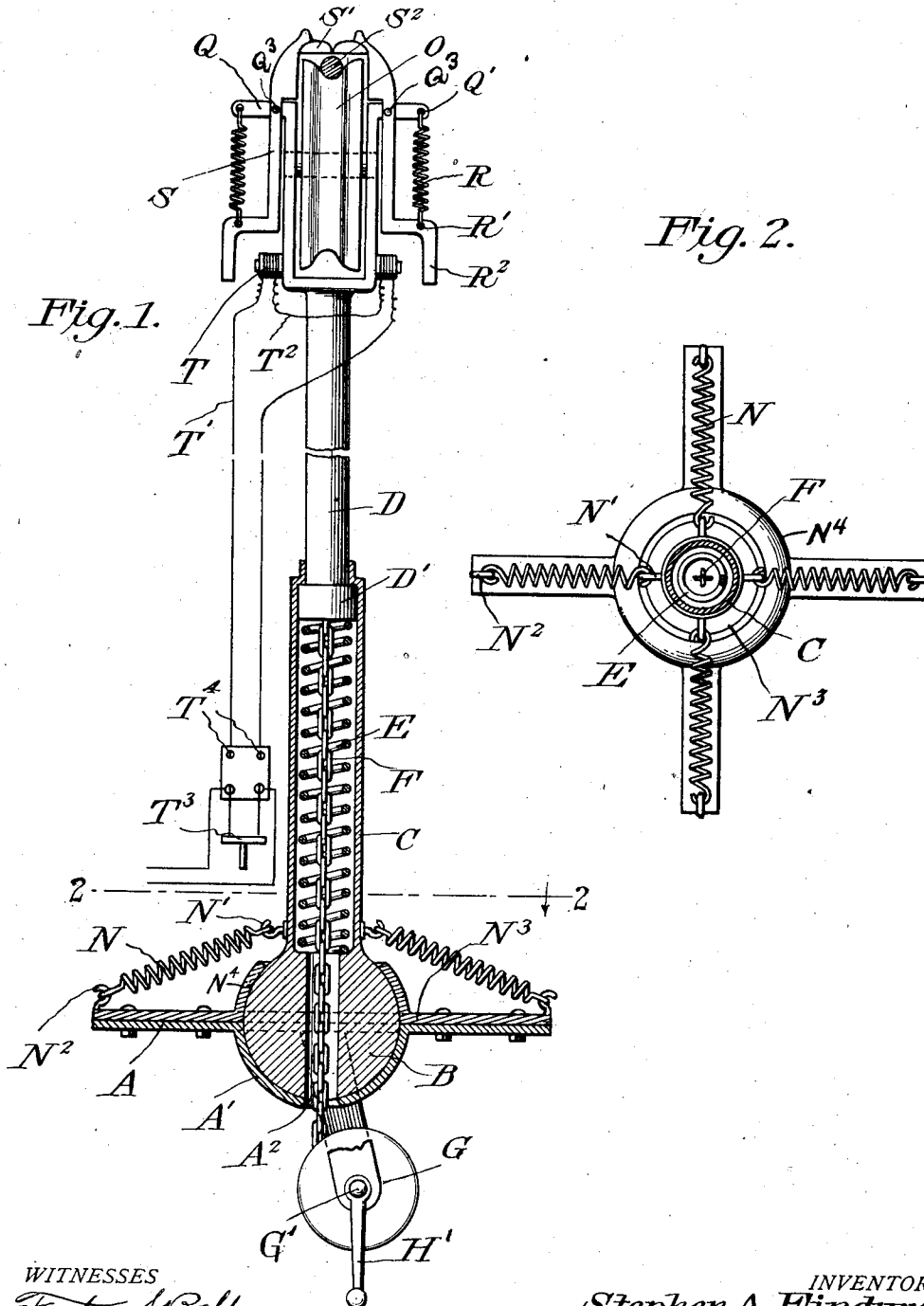


S. A. FINDURA.
TROLLEY WHEEL RETAINER.
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1,037,825.

Patented Sept. 3, 1912.



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UNITED STATES PATENT OFFICE.

STEPHEN A. FINDURA, OF McKEESPORT, PENNSYLVANIA.

TROLLEY-WHEEL RETAINER.

1,037,825.

Specification of Letters Patent.

Patented Sept. 3, 1912.

Application filed March 4, 1912. Serial No. 681,466.

To all whom it may concern:

Be it known that I, STEPHEN A. FINDURA, a citizen of the United States, residing at McKeesport, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Trolley-Wheel Retainers; 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 and figures of reference marked thereon, which form a part of this specification.

This invention relates to new and useful improvements in apparatus for holding trolley wheels on trolley lines and comprises a simple and efficient device of this nature having various details of construction and combinations and arrangements of parts which will be hereinafter fully described, shown in the accompanying drawings and then specifically defined in the appended claim.

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

Figure 1 is a sectional view longitudinally through a portion of the trolley pole apparatus showing parts in elevation and Fig. 2 is a sectional view on line 2—2 of Fig. 1.

Reference now being had to the details of the drawings by letter, A designates a socket member having a concaved recessed portion A' for the reception of the spherical-shaped end B of the shell C, and D designates a pole having a shouldered end D' telescoping within said shell, and E is a coiled spring which is mounted within said shell and bears against the bottom thereof and the inner end of the pole and serving to normally hold the latter at its farthest outer throw. A chain, designated by letter F, is fastened at its upper end to the bottom of the pole D and passes through a transversely disposed aperture A² formed in the spherical end B and is adapted to wind about the drum G having a suitable spindle G' mounted in the bracket arm H. A handle H' is fastened to said spindle and affording means for rotating the latter and the reel or drum.

In order to center the shell C, coiled springs N are fastened at their inner ends to the hooks N' and their outer ends to the hook N² upon the plate N³ which has a curved flange N⁴ serving to cooperate with

the walls of the recess A' to form a socket for the spherical end B.

The upper end of the pole is forked and a grooved pulley O is mounted therein and the upper ends of the forked arms are bent outwardly at right angles as at Q and each end is apertured as at Q' for the reception of one end of a coiled spring R, the other end of which is fastened in an aperture R' in the angled shank portion R² of the wheel retaining member S, which latter is pivotally mounted upon a pin Q³ upon the forked member Q and has its upper end S' extending inwardly over the trolley wire S². It will be noted upon reference to Fig. 1 of the drawings that there are two of said trolley retaining members S of similar construction and together form means for securely holding the wheel to the trolley line as shown.

Mounted upon each arm of the forked end of the pole is an electro-magnet T connected in circuit by means of the wires T' and T², and T³ designates a switch which is also in the circuit and, when thrown in contact with the terminals T⁴, will serve to energize the magnets and cause the lower ends of the trolley retaining member S to be drawn toward each other sufficiently to release their upper inwardly extending ends from over the trolley wire.

The operation of my invention will be readily understood.

Referring to Fig. 1 of the drawings, the retaining devices are shown in position to hold the wheel from leaving the trolley line. In the event of it being desired to allow the wheel to leave the trolley line, the switch T³ may be thrown to close the circuit and energize the electro-magnets which will cause the lower ends of the trolley retaining members S to be drawn toward the electro-magnets, thus allowing the wheel to leave the trolley line.

What I claim to be new is:—

A trolley wheel retainer comprising a spring-pressed pole and shell in which the latter is mounted, said pole having its upper end forked with lateral projections extending at right angles thereto and in alignment with each other, electro-magnets upon said forked end, retaining levers pivotally mounted one upon each of said projections, the lower portion of each retaining lever being bent at a right angle and positioned adjacent to one of said electro-magnets, a

coiled spring connecting the outer end of
each of said projections and the angled por-
tion of the retaining member, a portion of
each retaining member at its upper end hav-
5 ing lateral projections adapted to contact
with each other over a trolley wire, as set
forth.

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

STEPHEN A. FINDURA.

Witnesses:

PETER LANGSDORF,
HARRY E. CAMPBELL.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."