No. 649,468. Patented May 15, 1900.

J. H. MOREY & T. R. WATKINS.

TROLLEY.

(No Model.) (Application filed Aug. 7, 1899.)

Fig. 1.

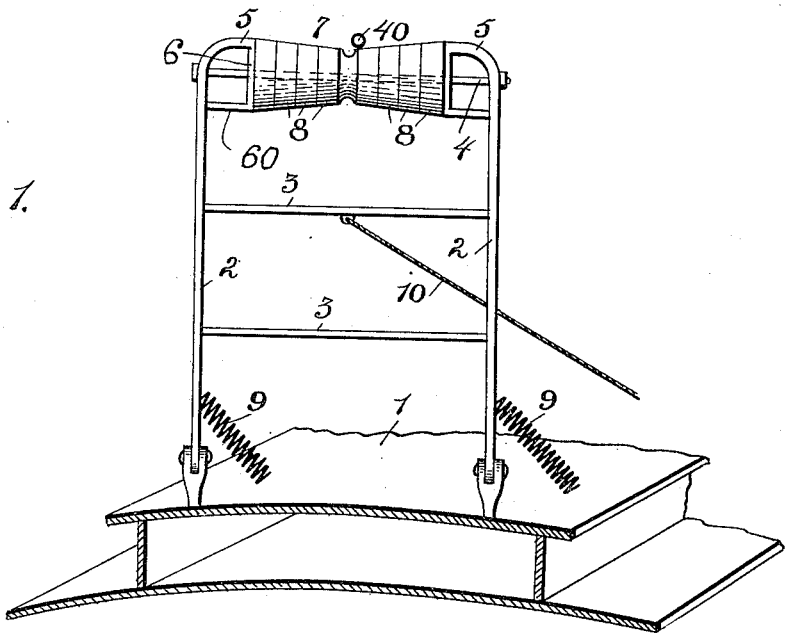
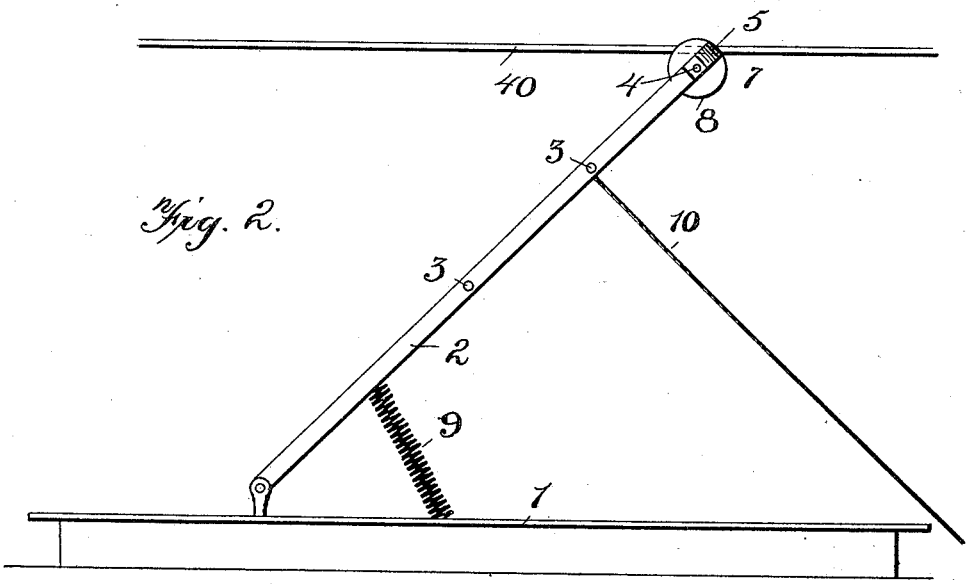


Fig. 2.



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UNITED STATES PATENT OFFICE.

JAMES H. MOREY AND THOMAS R. WATKINS, OF TRENTON, MICHIGAN.

TROLLEY.

SPECIFICATION forming part of Letters Patent No. 649,468, dated May 15, 1900.

Application filed August 7, 1899. Serial No. 726,372. (No model.)

To all whom it may concern:

Be it known that we, JAMES H. MOREY and THOMAS R. WATKINS, citizens of the United States, residing at Trenton, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Trolleys; 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 electric railways employing overhead trolley-wires, and more especially to the stands used in connection therewith for the purpose of supporting the trolley-wheel in engagement with the wire; and the object of the same is to produce a device which will throw the wire back into the trolley-wheel after it has become displaced therefrom.

To this end the invention consists in a conical wheel or series of wheels journaled on the stand at each side of the trolley-wheel, and thus forming a roller of some considerable length for resting beneath the trolley-wire; and the invention also consists in certain details of construction, all as hereinafter more fully described and as shown in the drawings, wherein—

Figure 1 is an end view of the upper portion of a car and an elevation of our trolley-stand complete. Fig. 2 is a side view of the same.

Referring to the drawings, 1 is the car, whose construction is immaterial to the present subject.

2 2 are two supports or standards pivoted at their lower ends in any suitable manner to the car, but preferably at opposite sides of its cupola or roof portion, and 3 are rungs or rods connecting these supports, so as to build up a stand of considerable strength capable of withstanding lateral shocks and torsional strain.

9 are the usual springs for holding up the stand, and 10 is a cord for drawing the same down when desired to throw the trolley-wheel out of contact with the wire 40. It is understood that this stand is in electrical connection with the motor beneath the car, as usual.

The upper extremities of the supports 2 are rounded inwardly, as at 5, so as to remove all corners which might catch beneath overhead supporting-wires or switch-wires, and through these supports is passed a transverse rod 4, which is held therein in any suitable manner, as by a nut at one end and a head at the other, thus permitting its removal when desired. After rounding inward, as shown at 5, the rods extend straight downward, as at 6, to form stops through which the transverse rod 4 may also pass, and the lower ends of these stops are preferably bent outward, as at 60, and connected with the supports 2 in order to hold the stops truly upright.

7 is the trolley-wheel proper, which is grooved for the reception of the wire 40. We have shown but one such wheel; but there may be more. It or they are journaled upon or located at about the transverse center of the rod 4, and at either side thereof are rollers 8, also journaled on this rod and filling the entire distance between the trolley-wheel and the stop 6 at either end. These rollers are graduated in size and slightly conical, so that the top of the device shall slope from either rounded end 5 inward to the trolley-wheel 7. Possibly one long roller at each side might answer; but we prefer to cut it into several short lengths, and if one short roller should stick or revolve tardily the others need not necessarily also do so.

The parts are of the desired sizes, shapes, proportions, and materials, with the exceptions noted and necessary.

The striking features of our invention are the facts that we employ a stand or framework instead of a rod to produce greater stability, we round all the corners to prevent the device from catching on overhead wires and to guide a loose trolley-wire to the wheel 7, and the conical shape of the rollers will obviously cause such trolley-wire to travel down from either side toward and into the groove of the trolley-wheel 7. The device thus avoids the necessity for the conductor's laboriously seeking the wire, and it also automatically finds the wire and directs it to the trolley-wheel after it has been thrown out in any way.

What we claim as new is—

1. In a trolley-stand, the combination with a framework consisting of two upright supports pivotally mounted on the car and con-

nected by rungs and a cross-rod, and stops at the upper ends of said supports rising above said rod; of a trolley-wheel journaled on the center of said rod, and a series of rollers journaled thereon at either side of the wheel and decreasing in diameter inward from the outermost rollers which fit against said stops to the innermost rollers whose smaller ends are of the same diameter as the ends of the trolley-wheel, as and for the purpose set forth.

2. In a trolley-stand, the combination with a framework consisting of two upright supports mounted on the car, bent inward at their upper ends, thence downward in stops, and thence outward to and connected with their upright portions, and a transverse rod passing through said upright portions and stops and connecting the two supports; of a trolley-wheel journaled on the center of the rod, and a series of rollers journaled thereon at either side of the trolley-wheel, as and for the purpose set forth.

3. In a trolley-stand, the combination with a framework consisting of two upright supports mounted on the car, bent inward at their upper ends, thence downward in stops, and thence outward against their upright portions, and a transverse rod passing through said upright portions and stops and connecting the two supports; of a trolley-wheel journaled on the center of the rod, and a series of rollers journaled thereon at either side of the wheel and decreasing in diameter inward from the outermost rollers which fit against said stops to the innermost rollers whose smaller ends are of the same diameter as the ends of the trolley-wheel, as and for the purpose set forth.

In testimony whereof we affix our signatures in presence of two witnesses.

JAMES H. MOREY.
THOS. R. WATKINS.

Witnesses:
WILLIAM SANDERS,
PATRICK MAHAFY.