

No. 824,611.

PATENTED JUNE 26, 1906.

B. C. BARTLEBAUGH.
TROLLEY KEEPER.

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Fig. 1.

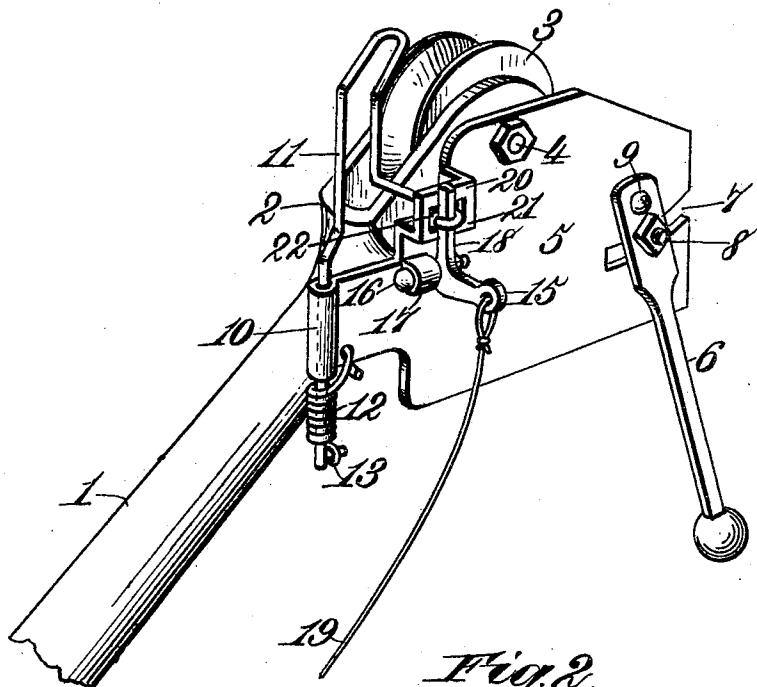
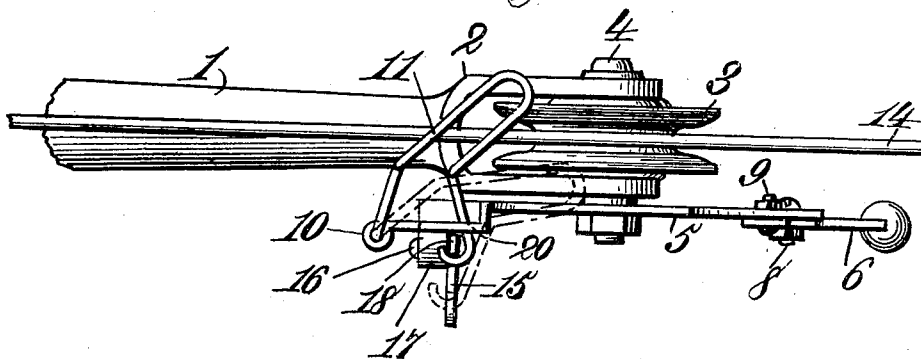


Fig. 2.



Witnesses,
Robert Everett,
James A. Morris, Jr.

Inventor:
Benjamin C. Bartlebaugh.
By James L. Norris.
Atty.

UNITED STATES PATENT OFFICE.

BENJAMIN C. BARTLEBAUGH, OF BENWOOD, WEST VIRGINIA, ASSIGNOR
OF ONE-HALF TO JOSEPH MAHOOD, CHARLES A. BARLOW, AND PAUL
RIEDEL, OF BENWOOD, WEST VIRGINIA.

TROLLEY-KEEPER.

No. 824,611.

Specification of Letters Patent.

Patented June 26, 1906.

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To all whom it may concern:

Be it known that I, BENJAMIN C. BARTLEBAUGH, a citizen of the United States, residing at Benwood, in the county of Marshall and State of West Virginia, have invented new and useful Improvements in Trolley-Keepers, of which the following is a specification.

This invention relates to trolley-keepers; and the object thereof is to provide a trolley-keeper in a manner as hereinafter more specifically referred to which can be readily and quickly applied to any trolley, and which will prevent any accidental displacement of the trolley-wheel from the trolley-wire, and at the same time so constructed and arranged that it will readily pass the brackets for suspending the trolley-wire.

The invention further aims to provide a trolley-keeper which shall be simple in its construction, strong, durable, efficient in its use, automatic in its action, and comparatively inexpensive to set up.

With the foregoing and other objects in view the invention consists of the novel construction, combination, and arrangement of parts hereinafter more specifically described, and illustrated in the accompanying drawings, which form a part of this specification, and wherein is shown the preferred embodiment of the invention; but it is to be understood that changes, variations, and modifications can be resorted to which come within the scope of the claims hereunto appended.

In describing the invention in detail reference is had to the accompanying drawings, wherein like reference characters denote corresponding parts through the several views, and in which—

Figure 1 is a perspective view of a trolley-keeper in accordance with this invention, and Fig. 2 is a top plan showing the keeper-arm in operative position in full lines and in inoperative position in dotted lines.

Referring to the drawings by reference characters, 1 denotes the trolley-pole; 2, the trolley-wheel harp, which is secured to the pole in any suitable manner; 3, the trolley-wheel arranged within the harp 2, and 4 the trolley-wheel shaft, which is secured to the harp 2 and adapted to support the wheel 3, the latter being rotatably mounted upon the shaft 4.

Mounted upon the shaft 4 and depending at one side of the harp 2 is a counterbalanced swinging keeper-plate 5, carrying at one side a depending and adjustable weighted arm 6. The adjustability of the arm 6 is obtained through the medium of an inclined slot 7 and a set-screw 8, which extends through the slot 7 and is connected to the arm 6. The arm 6 at its upper end is pivoted through the medium of a nut-and-bolt connection 9 to the plate 5. That side of the plate 5 opposite the side of the plate 5 to which the weighted arm 6 is connected is formed with an eye 10, through which extends one member of the keeper-arm 11. The said member of the keeper-arm 11, which extends through the eye 10, carries on its lower end a coiled spring 12, one end of said spring being connected to the said member, as at 13, and the other end is attached to the plate 5. The keeper-arm 11 is formed of a bar of suitable material bent upon itself so as to form an inner and an outer member and a diagonally-extending upper end which projects over the trolley-wire 14 and has the end thereof extending in close proximity to the wheel 3. The outer member of the keeper-arm 11 extends through the eye 10 and the inner member has a portion thereof bent at an angle, so as to engage a trigger mechanism to be hereinafter referred to. The action of the spring 12 is to normally retain the keeper-arm 11 in its operative position—that is to say, the upper end of said arm over the trolley-wire and in proximity to the trolley-wheel. When the keeper-arm engages one of the brackets for suspending the trolley-wire, the bracket will shift the arm to one side; but when the keeper-arm passes the bracket it will automatically resume its operative position, owing to the action of the spring 12.

The trigger mechanism consists of a shiftable plate 15, pivoted through the medium of the stud 16 to a bracket 17, carried by the keeper-plate 5. The shiftable plate 15 is provided with a protuberance 18, to which is connected the inner member of the keeper-arm 11, and extending from said plate 15 is a suitable means 19 for operating the plate when occasion so requires. The keeper-plate 5 is provided with a pair of stops 20 21 for limiting the movement in one direction of the shiftable plate 15. The stop 20 is provided

with an opening 22 to permit of the passage of the lower end of the inner member of the keeper-arm 11. The trigger mechanism is connected to the keeper-arm in such a manner that when the trigger mechanism is operated in one direction it will shift the upper end of the keeper-arm from over the trolley-wire and away from the trolley-wheel, so that the trolley can be removed from the wire and replaced at any time. When the trigger mechanism is released, the action of the spring 12 will cause the keeper-arm 11 to resume its normal or operative position.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A trolley-keeper comprising a keeper-plate, an arm carried thereby and adapted to extend over the trolley-wire and to associate with the trolley-wheel, means for normally retaining said arm over the wire, means carried by said plate for shifting the arm and an adjustable weight carried by said plate.
2. A trolley-keeper comprising a counter-balanced keeper-plate adapted to be suspended from the shaft of the trolley-wheel, a spring-actuated keeper-arm carried by said plate and adapted to project over the trolley-wire and to extend in operative relation with respect to the trolley-wheel, and a bell-crank lever carried by said plate and adapted when operated to shift said arm from operative position.
3. A trolley-keeper comprising a counter-balanced keeper-plate, a keeper-arm carried by said plate and adapted to extend over the trolley-wire forwardly of the trolley-wheel and in a diagonal direction, a bell-crank lever for shifting the said arm from over the trolley-wire, and means for automatically returning said arm to its position over the trolley-wire.
4. A trolley-keeper comprising a swinging plate, an adjustable weighted arm carried thereby, a keeper-arm carried by the plate and adapted to extend over said wire forwardly of the trolley-wheel, means for shifting the keeper-arm from over the trolley-wire,

and means for automatically returning the arm to a position over the trolley-wire.

5. A trolley-keeper comprising a counter-balanced plate suspended from the shaft of the trolley-wheel, a spring-controlled keeper-arm having the lower end thereof carried by the forward end of said plate and extending over the trolley-wire forwardly of the trolley-wheel and in a diagonal manner, and a trigger mechanism carried on the outer face at the forward end of the plate and adapted to shift the said arm to inoperative position, said mechanism connected to the free end of said arm.

6. A trolley-keeper comprising a counter-balanced plate suspended from the shaft of the trolley-wheel, a spring-actuated keeper-arm extending over the trolley-wire forwardly of the trolley-wheel and in a diagonal manner, and having its lower end connected to the forward end of said plate and a trigger mechanism carried on the outer face at the forward end of the plate and adapted to shift the said arm to inoperative position, said mechanism connected to the free end of said arm.

7. A trolley-keeper comprising a keeper-plate, an arm carried thereby and adapted to extend over the trolley-wire and to associate with the trolley-wheel, means carried on the lower end of said arm, connected to said arm and to said plate for normally retaining said arm over the wire, a trigger mechanism carried on the outer face at the forward end of the plate and adapted to shift the arm to inoperative position, said mechanism connected to the free end of said arm and means for limiting the movement in one direction of the trigger mechanism.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

BENJAMIN C. BARTLEBAUGH.

Witnesses :

JOSEPH MAHOOD, Sir.

CLYDE BARTLEBAUGH.