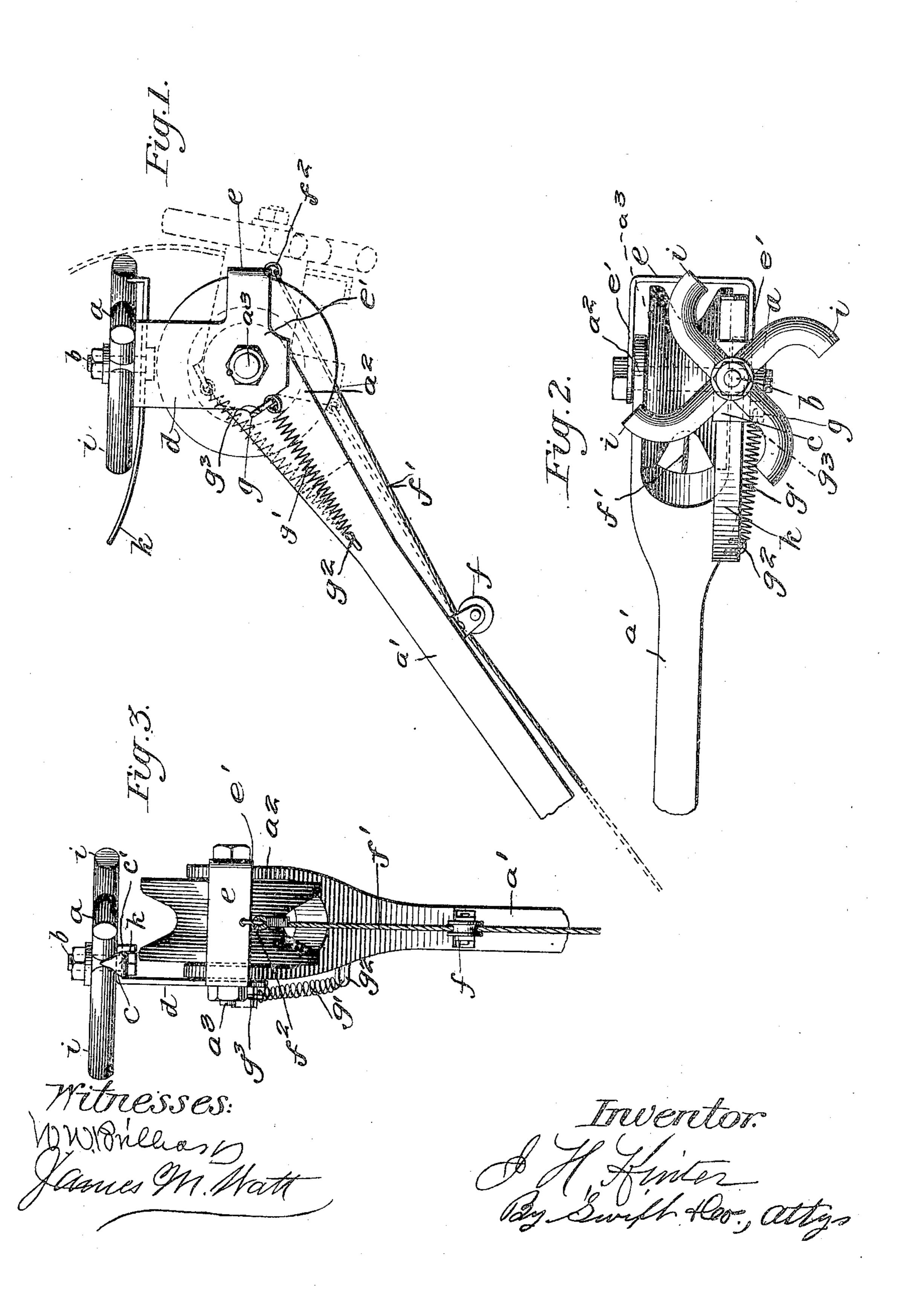
J. H. KINTER. TROLLEY FOR ELECTRIC CARS. APPLICATION FILED AUG. 5, 1904.



UNITED STATES PATENT OFFICE.

JOHN HARVEY KINTER, OF INDIANA, PENNSYLVANIA.

TROLLEY FOR ELECTRIC CARS.

No. 812,851.

Specification of Letters Patent.

Patented Feb. 20, 1906.

Application filed August 5, 1904. Serial No. 219,663.

To all whom it may concern:

Be it known that I, John Harvey Kinter, a citizen of the United States, residing at Indiana, in the county of Indiana and State of Pennsylvania, have invented a new and useful Improvement in Trolleys for Electric Cars, of which the following is a specification.

This invention relates to new and useful improvements in trolley-wheels; and the object of the same is to provide a device of this character having novel means to prevent the

wheel from leaving the line-wire.

The invention, as hereinafter set forth, is comparatively simple in construction and in-

15 expensive to manufacture.

The invention comprises, further, other advantages, objects, and combinations of elements which will be hereinafter more fully set forth and then specifically defined by the appended claims.

The invention is illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this application, similar letters of reference indiation like parts in the several views, in

which—
Figure 1 is a side elevation of the improved trolley-wheel, Fig. 2 a top plan view of the

same, and Fig. 3 a rear elevation.

Referring more particularly to the accompanying drawings by letters, a' designates the usual trolley-pole, having mounted in suitable bearings in the forks a² of said pole the spindle a³, having journaled thereon the usual trolley-wheel. Also mounted upon the spindle are the arms e' of the U-shaped member or clip e, which is provided with an upwardly-extending portion d, having a lateral extension c, adapted to carry a spring member k to protect the turnstile a when the same is passing a switch, as clearly illustrated in the accompanying drawings.

The lateral extension c is provided with a downwardly-extending portion c' to prevent the spring member k from twisting, as clearly illustrated in Fig. 3 of the accompanying drawings. Both the turnstile and the spring member k are held by a suitable bolt b, as shown in Figs. 1 and 2 of the drawings.

The turnstile a is provided with curved arms i, which extend over the periphery of

the trolley-wheel to prevent the same from jumping the line-wire. To rock the U-shaped member, as clearly shown in dotted lines in Fig. 1 of the accompanying drawings, a suit-55 able cable f' is attached, as at f^2 , to the clip e. Said cable f' is adapted to pass over a suitable pulley f to prevent the same from sagging. A suitable spring g' is provided, one end of which being attached, as at g^2 , to the trolley-60 pole and the other end is attached, as at g^3 , to a lateral extension g of the rocking member or clip, as shown clearly in the accompanying drawings. This spring is provided for the purpose of keeping the clip e erect.

From the foregoing it will be observed that a very efficient device is provided whereby trolley-wheels will be prevented from leaving

the line-wire.

Of course it is distinctly understood that 7° changes may be made in the construction of the different elements and the combination of the same without in any way departing from the spirit and scope of the invention.

Having thus fully described the invention, 75 what I claim as new, and desire to secure by

Letters Patent, is—

1. In a device of the character described, the combination of a trolley-pole having a forked end, a spindle carried by said forked 80 end, a trolley-wheel journaled thereon, a clip pivotally mounted upon said spindle, an upwardly-projecting extension integral with said clip, a turnstile carried by said clip, and means to hold said clip in an erect position.

2. In a device of the class described, the same comprising the usual trolley-pole having forked end, a spindle carried by said forked end, a trolley-wheel journaled thereon, a clip pivotally mounted upon said spindle, 90 an upward extension integral with said clip, a turnstile carried by said clip, and having radially-extending curved arms, means to protect said turnstile, and means to hold said clip in an erect position.

In testimony whereof I have signed my name to this specification in the presence of

two subscribing witnesses.

JOHN HARVEY KINTER.

Witnesses:

EDWARD POWER, J. M. SMITH.