(No Model.)

J. A. CRAWFORD & T. E. CROW.

TROLLEY WHEEL FOR ELECTRIC CARS.

No. 589,702. Patented Sept. 7, 1897.

Fig 1.

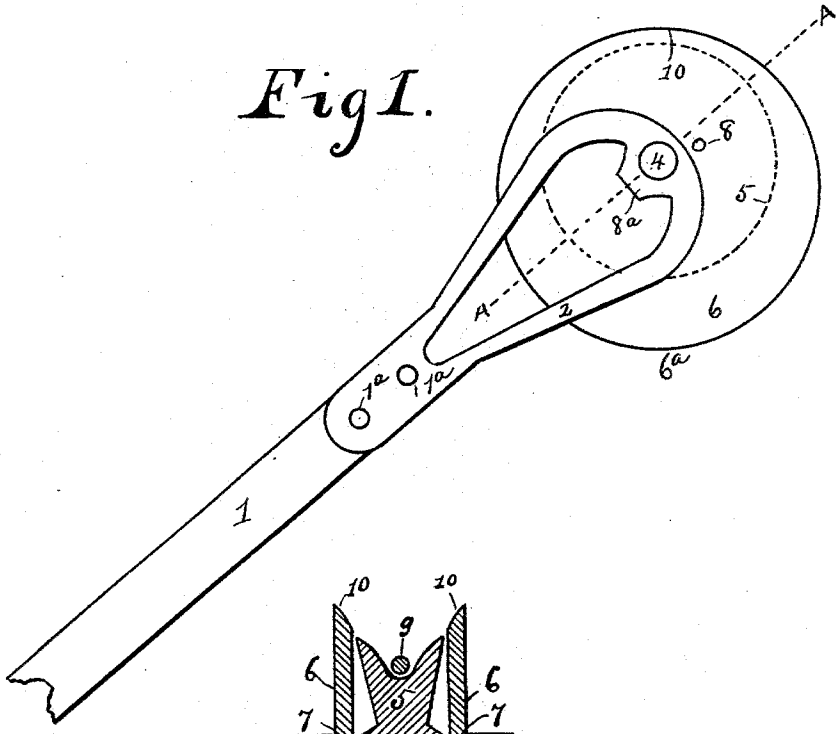
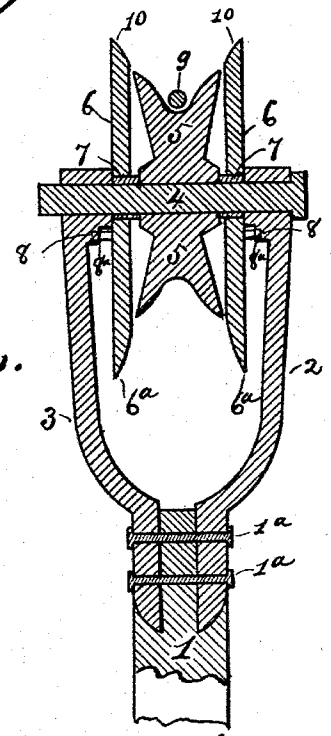


Fig 2.



Witnesses
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Inventors, per L. A. Lewis atty

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

JAMES A. CRAWFORD AND THOMAS E. CROW, OF DALLAS, TEXAS.

TROLLEY-WHEEL FOR ELECTRIC CARS.

SPECIFICATION forming part of Letters Patent No. 589,702, dated September 7, 1897.

Application filed September 12, 1896. Serial No. 605,630. (No model.)

To all whom it may concern:

Be it known that we, JAMES A. CRAWFORD and THOMAS E. CROW, citizens of the United States, residing at Dallas, in the county of Dallas and State of Texas, have invented a new and useful Improvement in Trolley-Wheels for Electric Cars, of which the following is a specification.

Our invention relates to improvements in trolley-wheels for electric cars in which two friction-disks are employed on either side of an ordinary trolley-wheel acting on the same axle, our object being to prevent the trolley-wheel from running off of the electric wire while the car is in motion. We attain this object by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of the device complete, showing a section of the trolley-pole attached thereto. Fig. 2 is a section through Fig. 1 from A to A.

Similar numerals of reference refer to similar parts throughout the two views.

The numeral 1 is the trolley-pole, having secured to its uppermost end (by bolts 1^a) the supporting-frames 2 and 3, which engage the axle 4, which carries the trolley-wheel 5, and the friction-disks 6 6, which are provided with thimbles 7 (which encircle the axle) and with lugs 8.

As to the operation of our device, it will be observed that the friction-disks are circular in shape, having the holes for the axle which carry them a little removed from their geometrical centers, while the trolley-wheel (which is carried by the same axle) has the axle-hole in the exact center, the whole being so arranged that the longer edges 6^a of the friction-disks will of their own weight hang down below the trolley-wheel. Should the trolley-wheel attempt to run off of the electric wire 9, friction is created by the wire on either of the uppermost edges 10 of the friction-disks, turning the flange or flanges thus effected in an opposite direction (around the axle) to that in which the car is traveling until the lugs 8 come in contact with the projections 8^a. The revolution of the flanges now immediately stops, leaving the lower edges of the flanges at the highest position above the trolley-wheel, thus preventing the trolley-wheel from running off of the electric wire.

Having thus explained all that is necessary for the full understanding of those skilled in the art to which it appertains, what we claim as new, and desire to secure by Letters Patent of the United States, is—

A trolley for electric cars, comprising a frame, a wheel, a wheel-axle, disks eccentrically journaled upon the axle, lugs upon the disks, and projections upon the frame lying in the path of said lugs.

JAMES A. CRAWFORD.
THOMAS E. CROW.

Witnesses:
J. A. CRAWFORD, Jr.,
CHAS. E. COOMBES.