No. 774,085. PATENTED NOV. 1, 1904.

J. J. LACKNOR & A. J. CURTIS.

TROLLEY POLE CONTACT.

APPLICATION FILED MAY 6, 1904.

NO MODEL.

FIG. 1.

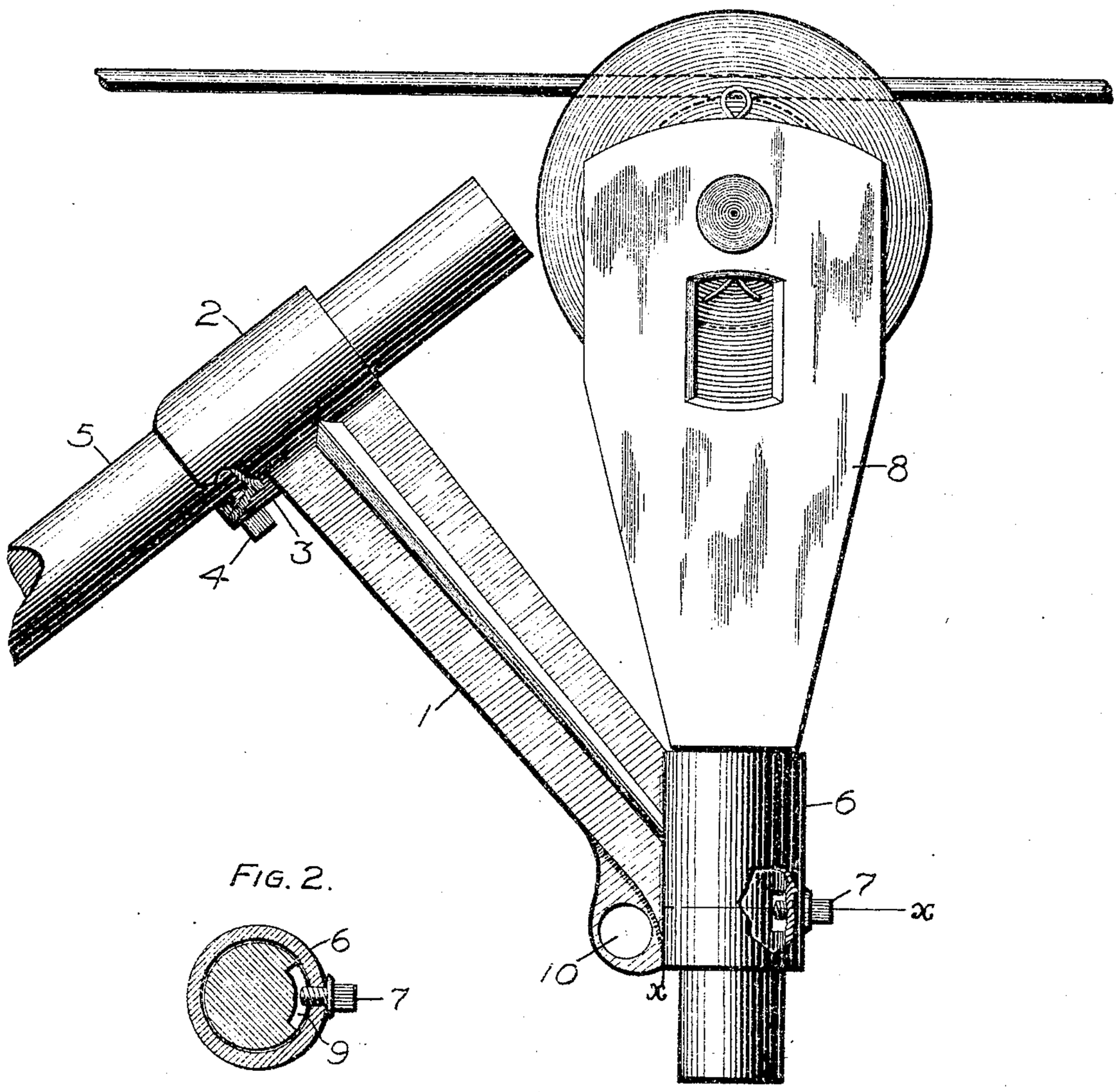
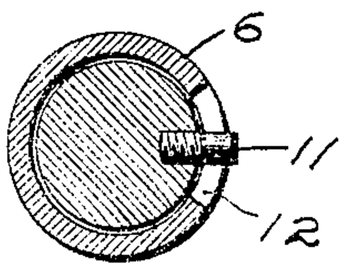


FIG. 2.

FIG. 3.



Witnesses
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No. 774,085. Patented November 1, 1904.

UNITED STATES PATENT OFFICE.

JOHN J. LACKNOR AND ANDREW J. CURTIS, OF EAST WILLIAMSON, NEW YORK.

TROLLEY-POLE CONTACT.

SPECIFICATION forming part of Letters Patent No. 774,085, dated November 1, 1904.

Application filed May 5, 1904. Serial No. 206,541. (No model.)

To all whom it may concern:

Be it known that we, JOHN J. LACKNOR and ANDREW J. CURTIS, citizens of the United States, residing at East Williamson, in the county of Wayne and State of New York, have invented certain new and useful Improvements in Trolley-Pole Contacts; 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.

Our invention relates to traveling electric contacts designed to run upon a fixed electric conductor and carried by a vehicle or moving object to which electric energy is supplied from the fixed conductor through such contact.

Our invention is especially applicable to revolving trolleys used in connection with electrically-propelled cars deriving the energy for the motor upon them from a fixed wire or conductor parallel to the track.

The object of our invention is to obviate a practical difficulty which arises frequently where the conductor is out of parallel with the direction in which the car moves and which frequently causes the contact or trolley to jump from the wire or conductor.

The invention also consists in providing means, in the furtherance of the above object, whereby old styles of trolley-heads are adapted to be adjusted for use in connection with our new device.

To these ends the invention consists of an adjustable angular casting or arm having a sleeve at each end arranged at an angle to each other, one adapted to be adjusted to the end of the trolley-pole and the other to the roller-head, whereby the wheel or roller is arranged in a line with said trolley-pole.

In the accompanying drawings, illustrating the preferred embodiment of our invention, Figure 1 is a side elevation of the end of a trolley-pole equipped with our device. Fig. 2 is a sectional view taken on line *x x* of Fig. 1, showing the means for retaining the roller-head in the sleeve; and Fig. 3 is a similar view showing another method of confining the roller-head to the sleeve on the arm.

Referring more particularly to the drawings, we provide an arm 1, made of cast-iron or other suitable metal and of the desired length and preferably tapering. At its larger end is a sleeve 2, having a passage therethrough preferably at right angles to the longitudinal axis of said arm. Said sleeve may be slightly longer than the width of the arm, having a portion 3 extending therefrom, through which a set-screw 4 passes, whereby the device is adjusted to the trolley-pole 5, which when in position, as shown, passes through said sleeve. At the other end of the arm 1 is a second sleeve 6, which extends at an acute angle with the longitudinal axis of said arm. This sleeve also has a lateral perforation in which works a set-screw 7 to retain the roller-head in said sleeve. Said roller-head 8 is of the ordinary construction. In fact, the head of the ordinary straight trolley-pole may be detached and used, if desired, said head being adjusted in the sleeve 6, while the other sleeve 2 is run on the end of the pole from which the roller-head has been taken.

To provide for the turning of the roller-head to adjust the wheel to the wire in going around curves, &c., a slot 9 is cut therein, into which the set-screw 7 projects, securing said roller-head against endwise movement, but allowing it to turn freely to and fro in its sleeve. Instead of this slot a projecting lug 11 may be provided, which may work in a slot 12 in the sleeve, in which case the set-screw 7 would not be used. The spread of the head to form the forks for the wheel provides the necessary bearing at the upper end of its sleeve. A loop 10 is provided near the lower end of the arm for pulling down said arm.

It will be noted that with our device the wheel is in a line with the longitudinal axis of the trolley-pole, which insures the smooth running thereof. Also the upper sleeve may be adjusted up and down said pole to adapt it for the use of all sizes of wheels.

We are aware that changes may be made in our invention without departing from the spirit or sacrificing the advantages thereof. We therefore reserve the right to make such

changes as fairly fall within the scope of our invention.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. In a device of the character described, an arm having a sleeve at each end, said sleeves arranged at an angle to each other, one of said sleeves adapted to be adjusted to the end of the pole and the other to the roller-head, whereby the wheel is arranged in line with the longitudinal axis of said pole.

2. In a device of the character described, an arm having a sleeve at each end, one of said sleeves perpendicular to the longitudinal axis of said arm and adapted to be adjusted to the end of the trolley-pole and the other sleeve arranged at an acute angle with the longitudinal axis of said arm and adapted to hold the head, whereby the wheel is arranged in line with the longitudinal axis of said pole.

3. In a device of the character described, an arm having a sleeve at each end, said sleeves arranged at an angle to each other, one of said sleeves adapted to be adjusted at different points on the trolley-pole and the other sleeve adapted to hold the head, whereby the wheel is arranged in line with the longitudinal axis of said pole, and means to permit the turning of said head to adjust the wheel to the wire.

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

JOHN J. LACKNOR.
ANDREW J. CURTIS.

Witnesses:
G. A. SCULLEN,
J. W. BRUNO.