

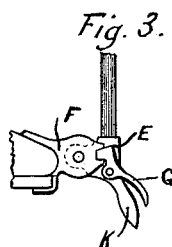
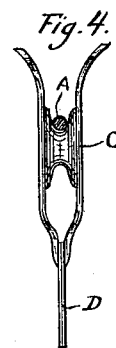
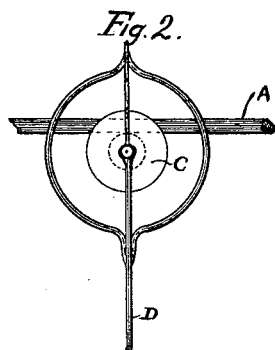
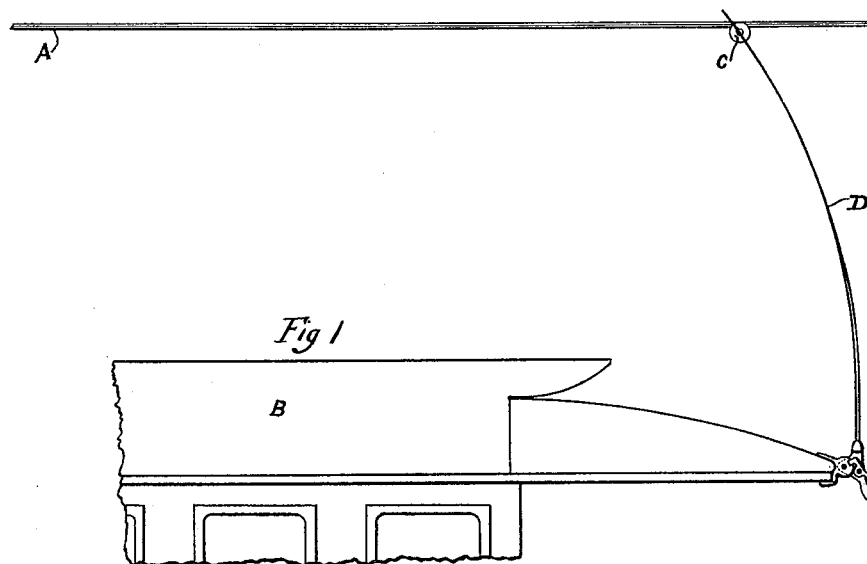
(No Model.)

W. H. KNIGHT.

OVERHEAD WIRE CONNECTION FOR ELECTRIC RAILWAYS.

No. 386,784.

Patented July 24, 1888.



WITNESSES.

Edward S. McKinney.
F. A. Blackwell.

INVENTOR.

Walter H. Knight.
by Brinley Knight.

UNITED STATES PATENT OFFICE.

WALTER H. KNIGHT, OF NEW YORK, N. Y.

OVERHEAD WIRE-CONNECTION FOR ELECTRIC RAILWAYS.

SPECIFICATION forming part of Letters Patent No. 386,784, dated July 24, 1888.

Application filed May 10, 1888. Serial No. 273,534. (No model.)

To all whom it may concern:

Be it known that I, WALTER H. KNIGHT, a citizen of the United States, residing at New York, in the county of New York, State of New York, have invented certain new and useful Improvements in Overhead Wire-Connections for Electric Railways, of which the following is a specification.

My invention relates to electric railways; and it consists in a device for maintaining connection between an electrically-propelled car and an overhead supply-wire. It is illustrated in the accompanying drawings, in which—

Figure 1 is an elevation of one end of a car provided with my improved contact device. Fig. 2 is a side elevation of a modified form of the device, and Fig. 3 is an end elevation of the same. Fig. 4 is a detail.

It has heretofore been customary in contact devices for overhead wires which bear upon the under side of a conductor to have a contact-wheel upon the end of a pivoted pole, forming a sort of walking-beam arrangement upon the top of the car. In this device the flanges of the wheel were alone relied upon to maintain the wheel in its position against the wire, and in consequence a large unsightly wheel was essential and only an indifferent contact with the wire obtained. In my device I provide but a small contact-wheel, and furnish it with guides which form an extension of the supporting-rod and always maintain the wheel in its proper position relative to the wire, while the wear comes only upon the wheel.

Instead of the pivoted bar heretofore employed for carrying the contact-wheel, I make a light flexible rod or whip, of steel wires, upon the end of which the wheel is carried. This whip has a socket on the end of the car-roof, by which, when desired, it can be turned forward or backward, so as to bring it into a proper position for either forward or backward movement of the car.

In the accompanying drawings, A is the main supply-wire; B, the car. C is the contact-wheel carried by the whip D. This whip D is secured in a socket, E, pivoted in a standard, F, attached to the edge of the car-roof. A spring-catch, G, is pivoted upon E, and is adapted to engage with a notch in the standard F, so as to hold D normally in an upright

position. The socket E is further provided with a handle, K, by which the rod may be readily turned and the wheel drawn up into contact with the supply-wire in either direction. As seen in Fig. 1, the wires of the whip at their ends are extended beyond the bearing of wheel C, so that the wheel is held against the lateral disengagement from A. This extension of D may take the form shown in Fig. 2, where it has the shape of a ring concentric with the bearing of the wheel. In this case there will be the proper guard above the wire at whatever angle the whip may take to wire A.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination, with an electrically-propelled vehicle, of an elevated supply-wire, a contact-wheel placed on a rod or suitable extension from the vehicle and provided with lateral guards forming an extension of the support and extending above the wire, preventing lateral displacement of the contact-wheel.

2. The combination, with an electrically-propelled vehicle, of a supply-wire, and a contact device adapted to travel along said wire and supported from a vehicle by a flexible resilient rod secured at one end, which presses the said contact device against the wire.

3. The combination, with an electrically-propelled vehicle, of an elevated supply-wire, A, a contact-wheel, C, and a flexible resilient rod or whip, D, having a projecting guard extending beyond the bearing of wheel C and having an attachment with the vehicle.

4. The combination, with an electrically-propelled vehicle, of an elevated supply-wire, a flexible resilient rod extending from the vehicle, a contact on said rod adapted to bear against the wire, and a catch for holding said rod in an upright position.

5. The combination, with a car, B, of an elevated supply-wire, A, whip D, contact-wheel C, bearing against the under side of A, and having an extension of D, forming a guard, pivoted holder E, and catch G, for maintaining D in an upright position.

WALTER H. KNIGHT.

Witnesses:

JOHN P. S. CHURCHILL,
GEO. T. BLACKWELL.