

No. 771,295.

PATENTED OCT. 4, 1904.

W. BURLING.
LIGHTING ELECTRIC TROLLEYS.

APPLICATION FILED JULY 11, 1904.

NO MODEL.

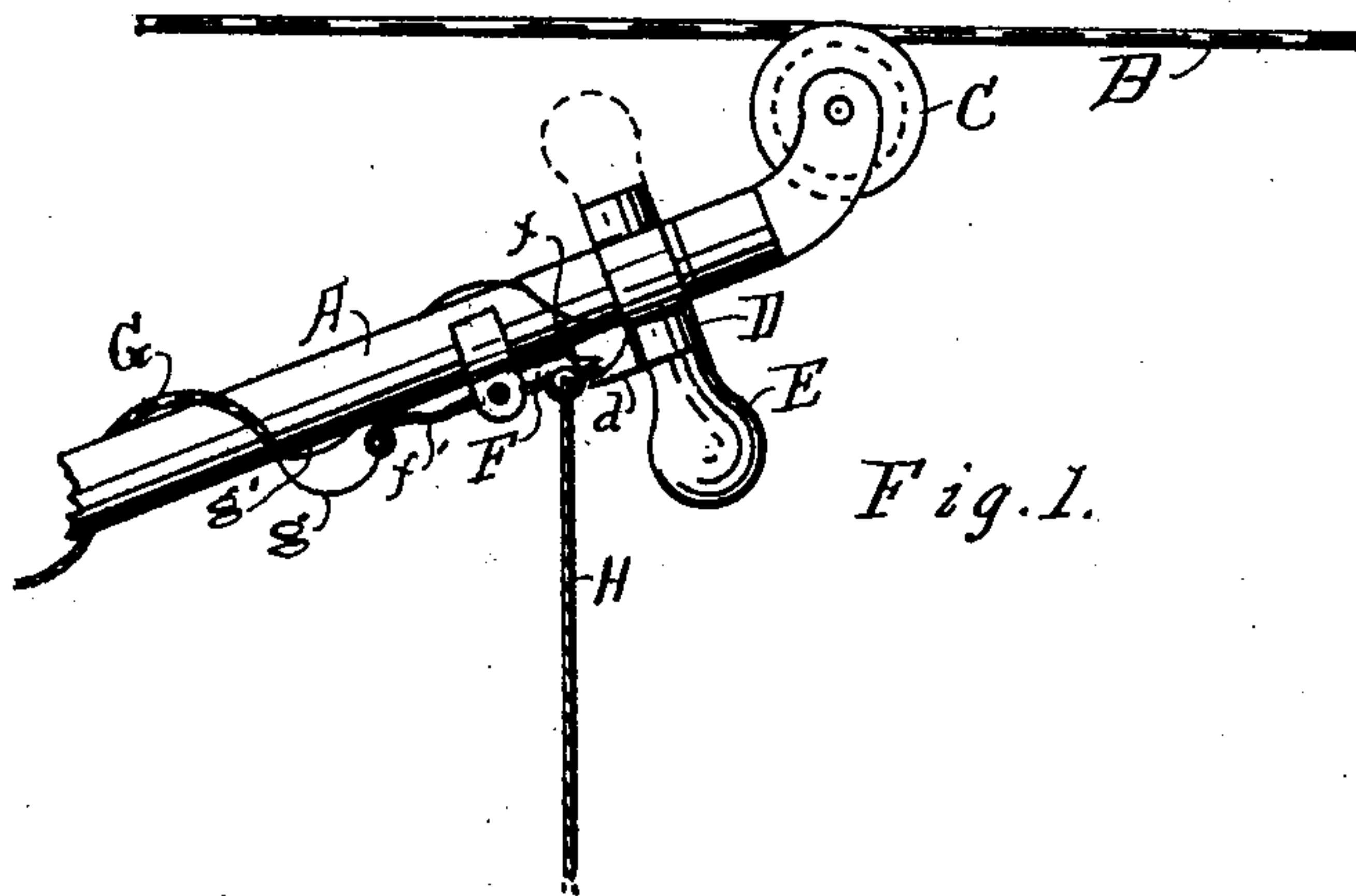


Fig. 1.

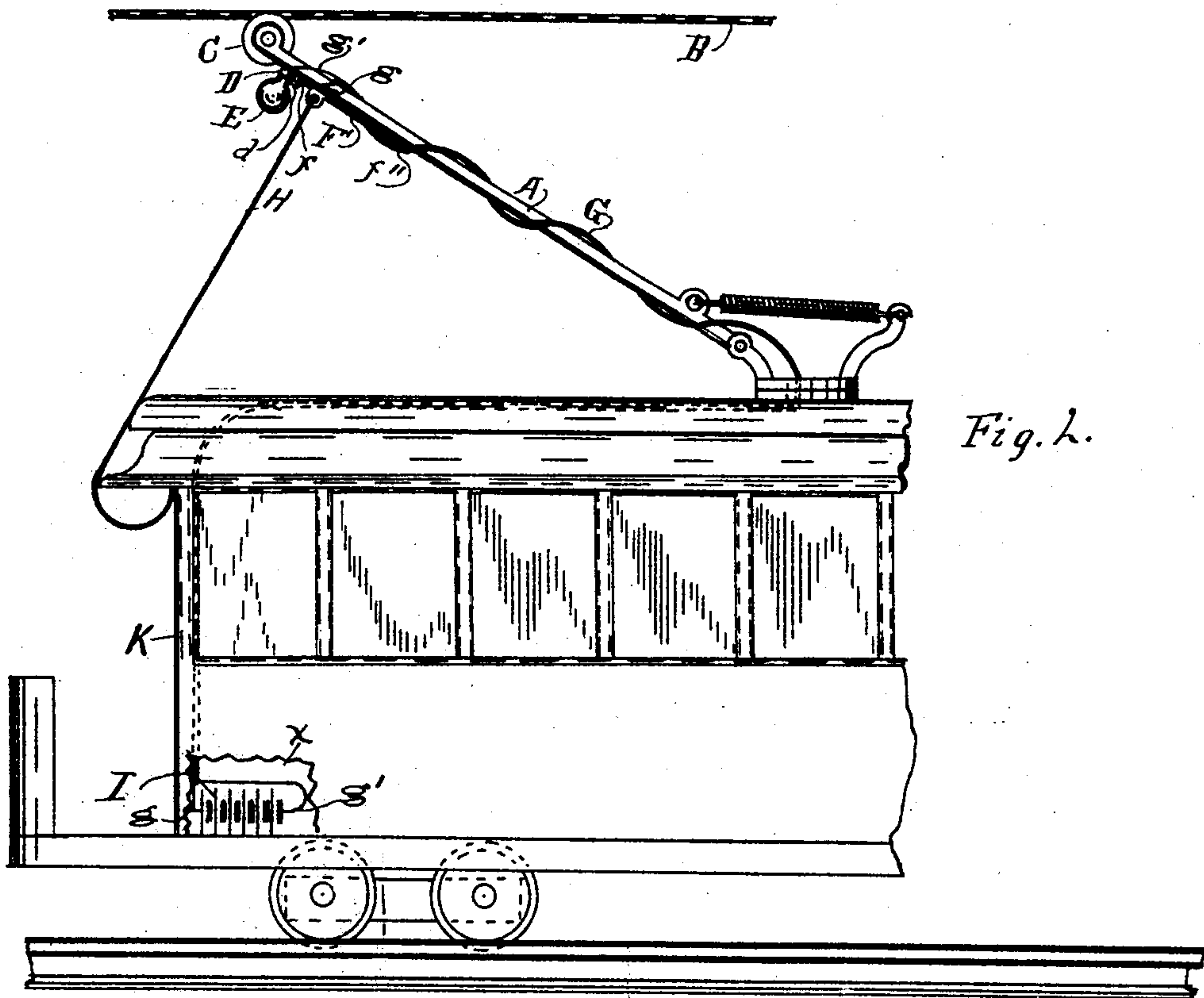


Fig. 2.

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UNITED STATES PATENT OFFICE.

WALTER BURLING, OF GRAND RAPIDS, MICHIGAN.

LIGHTING ELECTRIC TROLLEYS.

SPECIFICATION forming part of Letters Patent No. 771,295, dated October 4, 1904.

Application filed July 11, 1904. Serial No. 216,154. (No model.)

To all whom it may concern:

Be it known that I, WALTER BURLING, a citizen of the United States, residing at Grand Rapids, in the county of Kent and State of Michigan, have invented certain new and useful Improvements in Lighting Electric Trolleys, of which the following is a specification.

My invention relates to improvements in lighting electric cars; and its object is to provide a means whereby the trolley wheel and wire may be readily lighted when desired, but will not be lighted while the trolley-wheel is traveling upon the wire. I attain this object by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 shows the end of a trolley-pole with the wheel in contact with the trolley-wire and one form of lamp and attachment, and Fig. 2 is a side elevation of one end of a car with the side cut away at X to show the position of the temporary battery by means of which the trolley-lamp is illumined when the trolley-wheel is removed from the trolley-wire.

Similar letters refer to similar parts throughout both views.

A, B, and C represent, respectively, a trolley-pole, a trolley-wire, and a trolley-wheel attached to the pole and in contact with the wire. D represents a clamp secured to the trolley-pole and having a proper connecting device for securing an electric-light bulb E. This clamp is provided with an arm d , which projects out a short distance from the pole, so that the contact-lever F may be inserted between it and the surface of the pole in such a manner that it will stand normally a short distance back of the arm d , being held to its normal position by a spring, as f' ; but when the trolley-pole is down the point f of the contact-lever F will come in contact with the arm d and complete an electric circuit through the lamp E by means of the positive and negative wires g and g' from the battery I.

In Fig. 2 I have shown a modified form of contact-lever at F' which is a simple spring secured to the trolley-pole at f'' , so that the outer end will lie normally upon the surface of the pole with the end disconnected from

the arm d , but may be readily drawn in contact with this arm by pulling upon the rope H, as hereinbefore set forth.

G represents a cable inclosing the wires g and g' , and I have shown it wrapped around the trolley, so that the circuit may be more readily traced.

I design that certain lights inside the car shall be connected in the circuit of the battery I, so that the car may be lighted independent of the trolley connection. At the same time the lamp E is lighted by drawing upon the rope H.

The dotted outlines of a bulb at the upper side of the trolley in Fig. 1 is placed to indicate the possibility of placing the bulb E upon the opposite side of the pole, if desired.

K represents the end of a car.

I am aware that there are various forms of connections for completing or breaking an electric circuit which would be applicable to my device and therefore do not desire to restrict myself to any particular form, having shown the form in the drawings as the most simple and desirable, the object of my device being simply to light the trolley and the wire temporarily when endeavoring to place the trolley-wheel in proper contact with the wire after it has left the wire, and it is for use only after dark and to temporarily light the car, as hereinbefore stated.

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

In combination with a trolley-pole, an electric battery and conducting-wires, an electric light bulb attached to the trolley-pole a contact-arm upon the bulb connections, a spring contact-arm on the trolley-pole, all connected within the circuit of the battery, and a trolley-rope attached to the spring contact-arm to open or close said circuit, substantially as and for the purpose set forth.

Signed at Grand Rapids, Michigan, this 6th day of July, 1904.

WALTER BURLING.

In presence of—

C. V. CILLEY,
ITHIEL J. CILLEY.