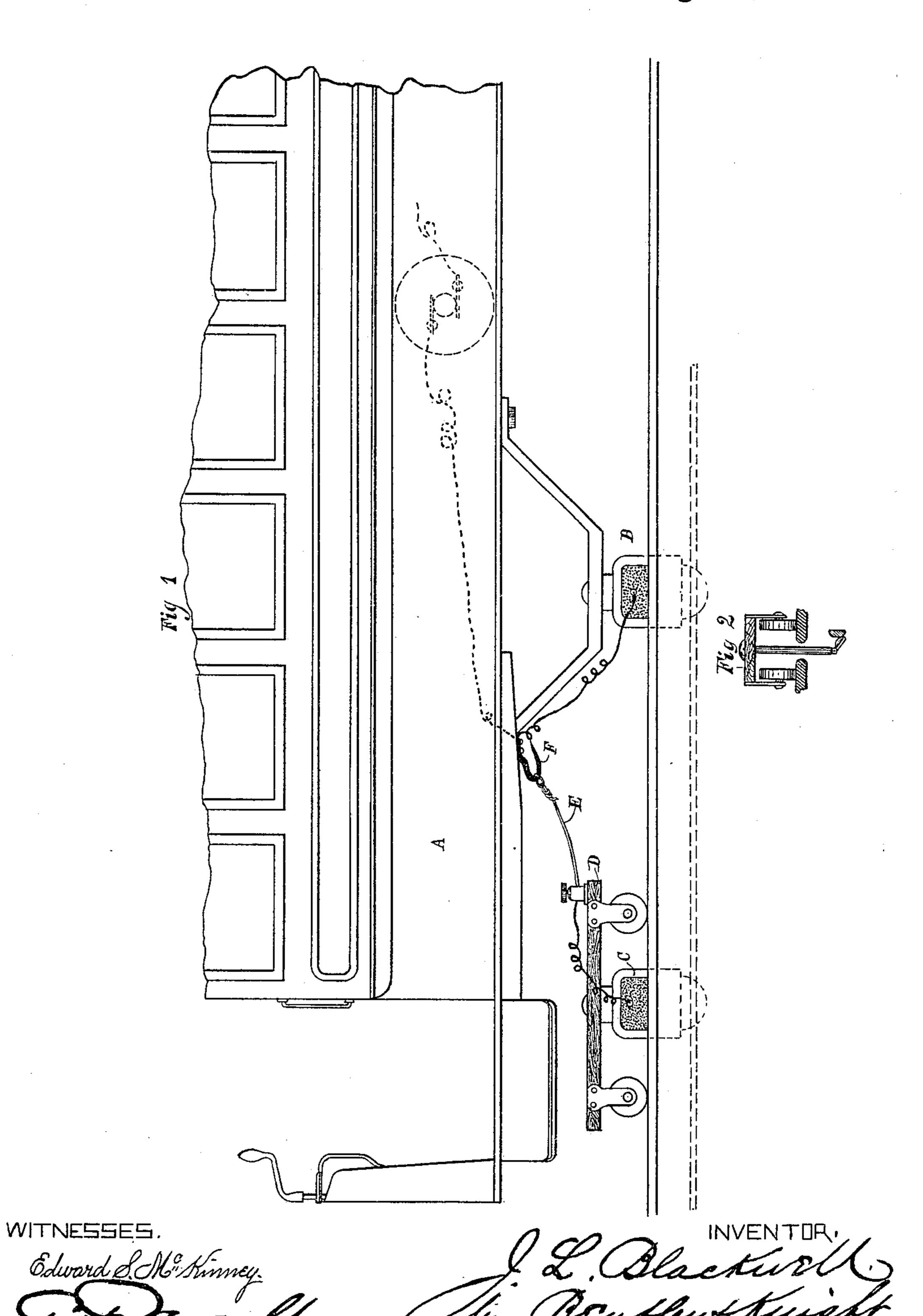
(No Model.)

## J. L. BLACKWELL.

CURRENT COLLECTOR FOR ELECTRIC RAILWAYS.

No. 388,247.

Patented Aug. 21, 1888.



N. PETERS, Photo-Lithographer, Washington, D. C.

## United States Patent Office.

JOSIAH LOW BLACKWELL, OF NEW YORK, N. Y.

## CURRENT-COLLECTOR FOR ELECTRIC RAILWAYS.

SPECIFICATION forming part of Letters Patent No. 388,247, dated August 21, 1888.

Application filed July 3, 1888. Serial No. 278,959. (No model.)

To all whom it may concern:

Be it known that I, Josiah Low Black-Well, a citizen of the United States, residing at New York, in the county of New York, 5 State of New York, have invented certain new and useful Improvements in Current Collectors for Electric Railways, of which the following is a specification.

My invention relates to electric railways wherein the main supply-wire is inclosed in a slotted conduit beneath the surface of the street, and connection therewith maintained by a contact device or plow extending from an electrically-propelled vehicle into the conduit.

My invention consists in providing a vehicle so propelled with a supplementary contact device to be used in emergencies, which is adapted to be inserted into the slot of a conduit and take the place of the normal contact device in case of accident. This supplementary contact device is provided with wheels, by which it may ride upon the surface of the conduit, so that when it is brought into use no special attachment to the main vehicle is necessary, an ordinary hook or snap serving to draw it along the line.

My invention is illustrated in the accompanying drawings, wherein—

Figure 1 is a side elevation of an electrically30 propelled car embodying my invention; and
Fig. 2 is a transverse section of a slotted conduit, showing the supplementary contact device in position.

In the said drawings, A represents a car; B, a plow-contact devices uspended therefrom, of any desired construction.

Crepresents a supplementary contact device attached to a small truck, D, adapted to ride upon the conduit, having a propelling-wire, E,

which is provided with a ring adapted to engage with hook F. This hook F is in electrical connection with the normal contact device B, and also with one terminal of the propelling motor. In case of accident to the main contact device B, it is only necessary to insert 45 the supplementary device C into the conduit and hook E and F together. As shown in Fig. 2, the contact C is preferably of the form shown in Patent No. 338,174, to Walter H. Knight, wherein the contact piece on the lower end of 50 the shank extending through the slot is of such a thickness that it may be inserted through the slot of the conduit at any point.

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

1. The combination, with an electrically-propelled vehicle provided with a normal contact device, of a supplementary contact device provided with a truck adapted to ride on the surface of the conduit, and a wire for connect-60 ing it to the vehicle.

2. The combination, with an electrically-propelled vehicle having a normal contact device and an exposed hook or connection-point in electrical communication with the propel-65 ling-motor, of a supplementary contact device having a truck adapted to ride upon the surface of the conduit, with means for connecting it to the said exposed point.

3. A supplementary contact device for an 70 electric railway having a truck adapted to ride on the surface of a conduit, and a contact-piece thinner than the width of the slot, so as to be inserted therein at any point.

JOSIAH LOW BLACKWELL.

Witnesses:

ROBT. W. BLACKWELL, JULIEN M. ELLIOT.