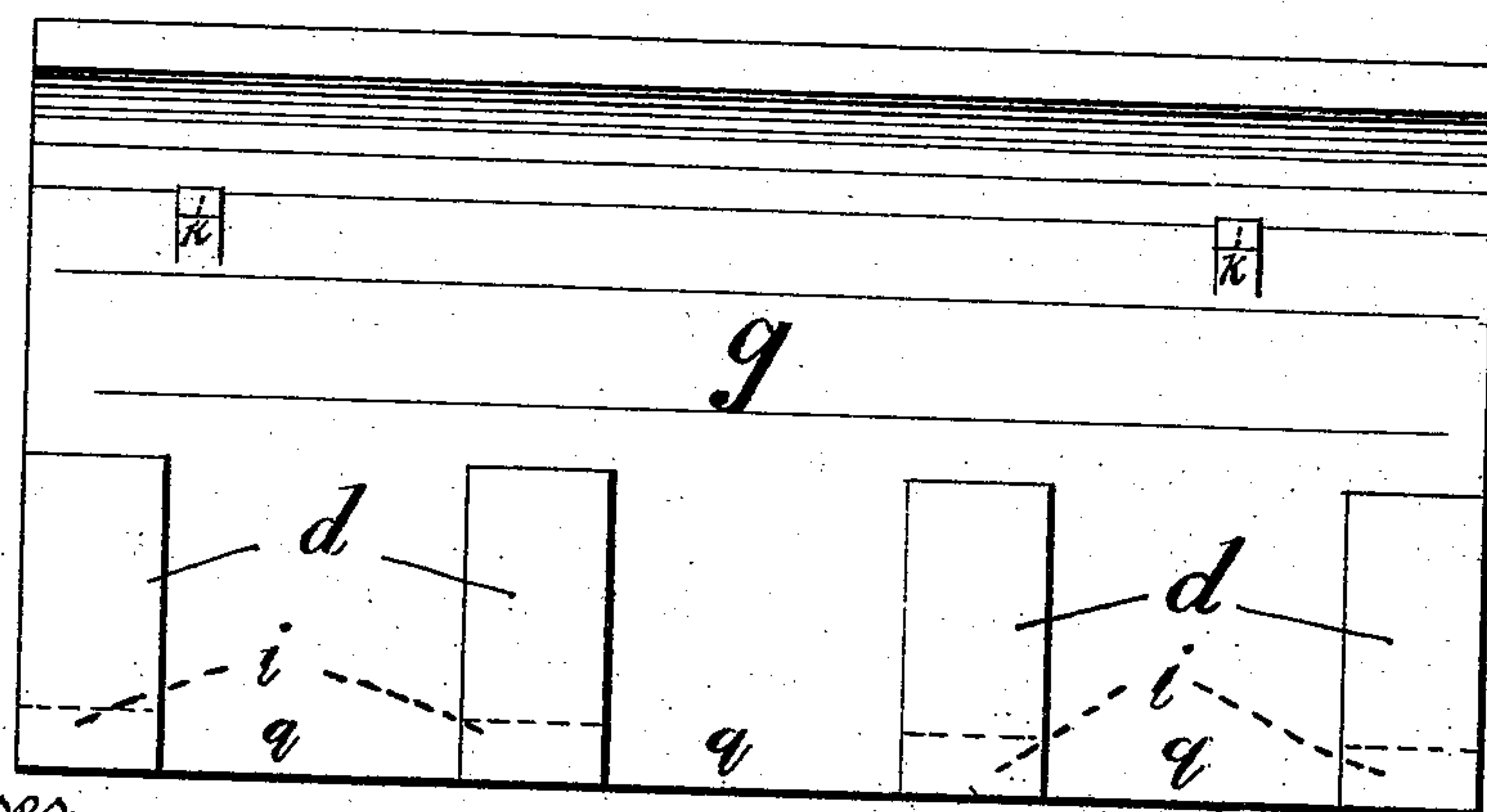
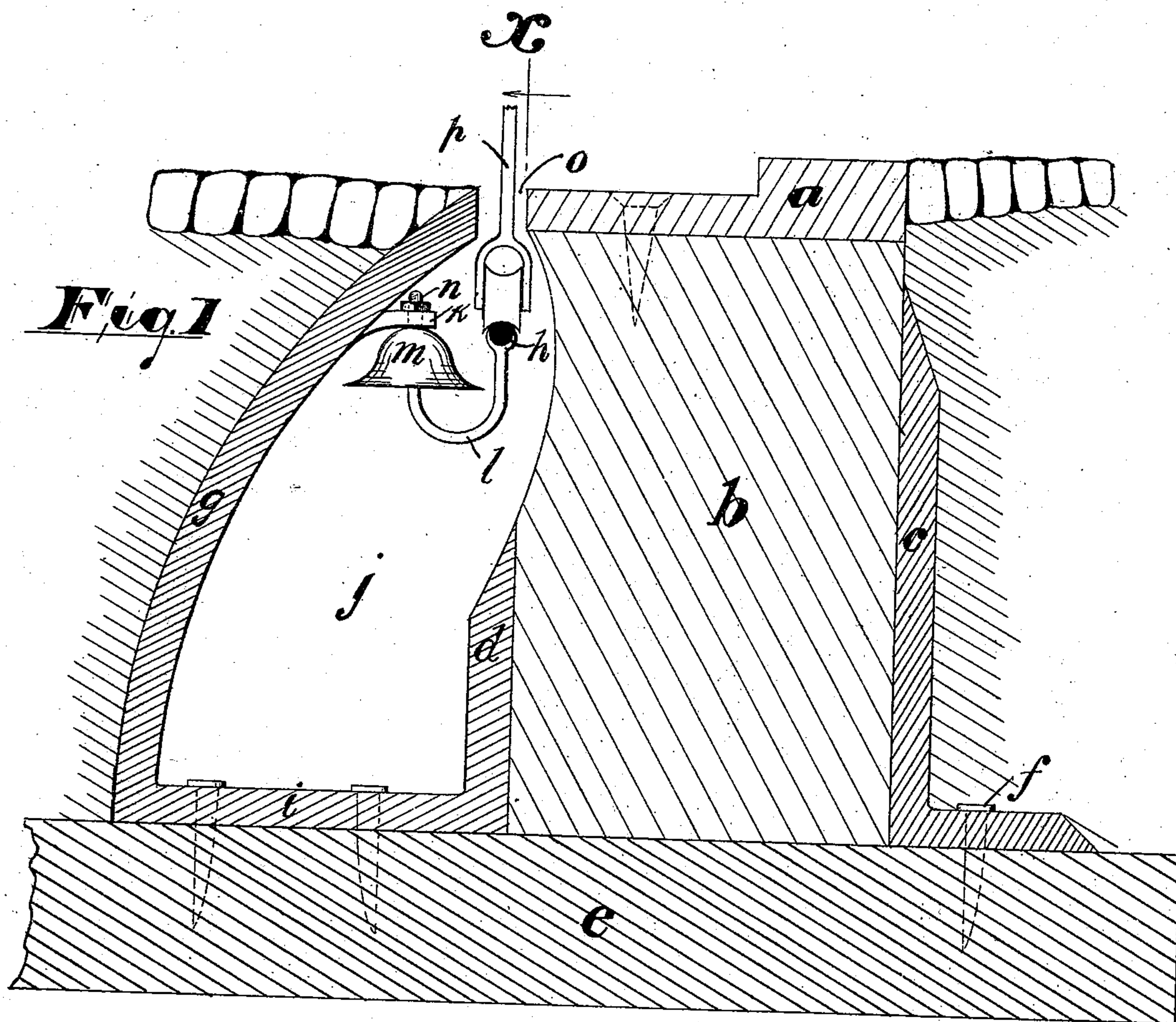


(No Model.)

I. J. COOK.
ELECTRIC RAILWAY CONDUIT.

No. 501,676.

Patented July 18, 1893.



Witnesses

Oscar A. Michel.
H. D. W. Lay

Inventor

Irving J. Cook,

By Drake & Co. Attys.

UNITED STATES PATENT OFFICE.

IRVING J. COOK, OF NEWARK, NEW JERSEY.

ELECTRIC-RAILWAY CONDUIT.

SPECIFICATION forming part of Letters Patent No. 501,676, dated July 18, 1893.

Application filed August 23, 1892. Serial No. 443,869. (No model.)

To all whom it may concern:

Be it known that I, IRVING J. COOK, a citizen of the United States, residing at Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Electric Conduits; and I 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, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

The object of this invention is to provide an underground conduit for the electric current used as motive power for cars on street railways, to facilitate access to the conduit and to secure other advantages and results some of which will be more fully referred to in connection with the description of the invention.

The invention consists in the improved conduit and in the combination and arrangement of parts substantially as herein shown and described.

Referring to the accompanying drawings in which like letters of reference indicate corresponding parts where they occur, Figure 1 is a vertical transverse section of my improved conduit and Fig. 2 is an inside view of the conduit, looking in the direction of the arrow on the line *x* of Fig. 1.

In said drawings, *a* is the rails along which the wheels of the car travel, *b*, the rail-beam or sleeper to which the rail is secured in any ordinary manner.

c, *d*, are guides or stays which engage the rail-beam or sleeper on opposite sides thereof to hold the same in its proper position. The guides or stays *c*, *d*, may be of any suitable construction adapted to retain the rail and sleeper in position but I prefer the construction shown in the drawings in which *c* is an L shaped piece of metal adapted to engage the outer side of the rail beam or sleeper and is secured to the cross-ties *e*, by a spike, *f*, or in any other suitable manner, and *d*, may be a similarly shaped piece adapted to engage the rail beam or sleeper on the inner side thereof but is preferably an integral part of a metal wall, *g*, of the conduit. By this construction, it will be observed that the rail, *a*,

and beam, *b*, are not held rigidly to the cross-ties but simply rest loosely thereon under the restraint and support of the guides or stays *c*, *d*. The electric current is carried by a wire, *h*, or other suitable conductor which is inclosed or partially inclosed by an iron frame, consisting of portions *d*, *i* and *g*, which serve as the walls of the conduit and form the chamber *j*. Along the walls of the chamber *j*, are arranged at suitable distances, lugs or projections, *k*, for receiving the wire supporting brackets *l*. Between the bracket *l*, and projection, *k*, an insulator, *m*, is interposed and all the said parts are held together by means of a bolt, *n*, or other suitable connections. An opening *o*, is provided at the top of the conduit or chamber for a trolley arm, *p*, between the rail, *a*, and wall, *g*, said trolley arm carrying the ordinary trolley wheel which travels upon the wire, *h*. Said trolley arm passes out through the opening *o*, and is connected with the car in any suitable manner as will be understood.

The bottom part or base *i* of the frame is provided with openings as at *q*, which admit of free egress of waste water from the conduit. To further facilitate the exit of water from the conduit, connection may be formed with the sewer mains by means of pipes as will be understood.

By the construction shown and described it will appear that access may be had to the conduit at any time by prying up the rail and beam *b*, which may be effected by interposing a bar at the opening *o*, or by other suitable means. The location of the conduit may be outside of the rail, *a*, if desired, instead of inside.

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

1. An electric conduit combining therein a sleeper or stringer *b*, means for supporting the same whereby it may be removed to afford access to the conduit, and a track-rail supported upon said sleeper, as described, for the purposes set forth.

2. The combination in an electric conduit of a removable rail, a chamber adjacent to the said rail and having an opening at the top; said opening lying between the rail on one side and the wall of the conduit on the

other side, substantially as and for the purpose set forth.

3. In an electric subway conduit the combination of a rail and sleeper removable from
5 the conduit, cross-ties *e*, therefor, and guides or stays for retaining said rail and sleeper in correct position, all substantially as and for the purpose set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 13th day of 10 August, 1892.

IRVING J. COOK.

Witnesses:

OLIVER DRAKE,
OSCAR A. MICHEL.