

(No Model.)

G. E. NOYES.
CONDUIT RAILWAY INSULATOR.

No. 500,937.

Patented July 4, 1893.

Fig. 1.

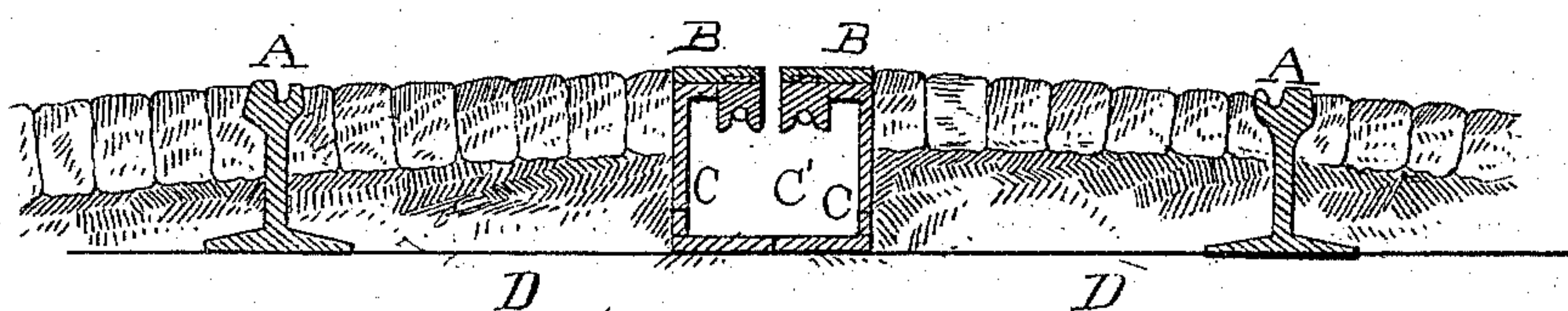


Fig. 2.

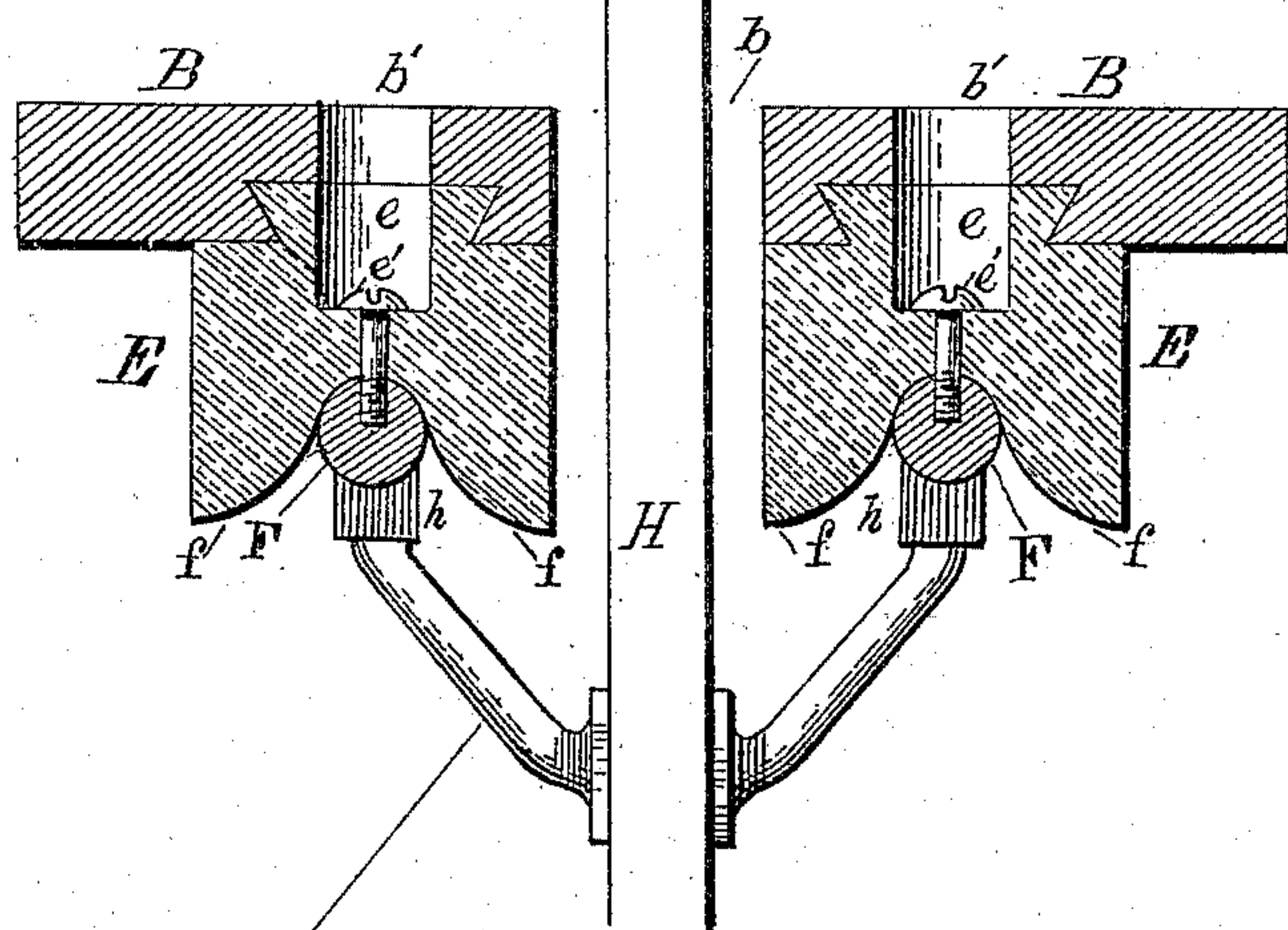
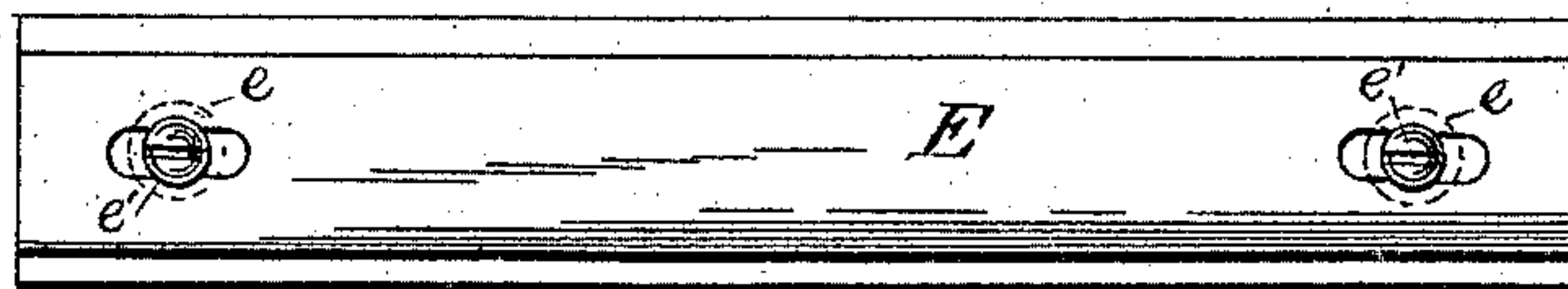


Fig. 3.



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CONDUIT RAILWAY INSULATOR.

SPECIFICATION forming part of Letters Patent No. 500,937, dated July 4, 1893.

Application filed August 8, 1892. Serial No. 442,480. (No model.)

To all whom it may concern:


Be it known that I, GEORGE E. NOYES, a citizen of the United States, residing at Washington Grove, in the county of Montgomery and State of Maryland, have invented certain new and useful Improvements in Underground Conductors; and I do 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 the letters of reference marked thereon, which form a part of this specification.

This invention relates to improvements in underground conductors for electrical railways, which will be hereinafter more particularly described and pointed out.

In the accompanying drawings forming part of this specification: Figure 1 is a transverse section of the rail way. Fig. 2 is a transverse section of the improvements. Fig. 3 is a bottom view of one of the insulators.

A, A, are the rails of the track.

B, B are the cap plates, having between them the slot *b*.

C, C, are two lines of  plates which are secured to the sills D at the bottom, and to the top-plates B, B, and together form a conduit C'.

E, E, are glass insulators, one on each side of the slot *b*, and which can be secured to the underside of the cover or top plates in any practicable manner; the drawings shows a dovetail connection.

The glass insulators E can be molded in any convenient manner and length to suit the circumstances of construction as may be suitable; but the under side should be concaved as shown in the section Fig. 2 having the concentric circle at the top of the same diameter as the line-wire F to be used, so that the wire will be closely held to its place, and properly sustained. At each end of the glass sections,

which may be about three feet long, are counter-sunk holes *e*, for the insertion of small screws *e'*, which are to secure the wire F in its place in the socket. The ears *f, f*, drop down a short distance below the wire F, so that should any water percolate from the surface, or through the slot *b*, it will drop from these ears to the bottom of the conduit C'— in the sides of which provision is made to convey the water away from it, as is usual in works of this kind, and not necessary to be shown in the drawings being well known. The plates B have holes *b'* in them immediately over the counter-sunk holes *e* in the insulators, for the purpose of reaching the screws *e'* for construction, or repairs when necessary. The usual appliances for connecting the line wires of the system with the operative mechanism of the cars are shown in the drawings by the letter H so that when the electric current is to be used the brush *h* is applied to the wire F, and contrariwise, detached, when the car is to be stopped.

I claim—

1. In an under-ground electrical system for operating rail-way cars, the continuous insulators E, secured under the cap-plates B, on each side of the slot *b*, and hollowed out for the insertion and support of the line wires: in combination with the cap plates supported on the top of a conduit: all substantially as and for the purpose described.

2. The insulators E, having the under side concave, and counter sunk screws at each end for securing the line wire in its position, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

GEORGE E. NOYES.

Witnesses:

WM. R. SINGLETON,
THOS. S. HOPKINS.