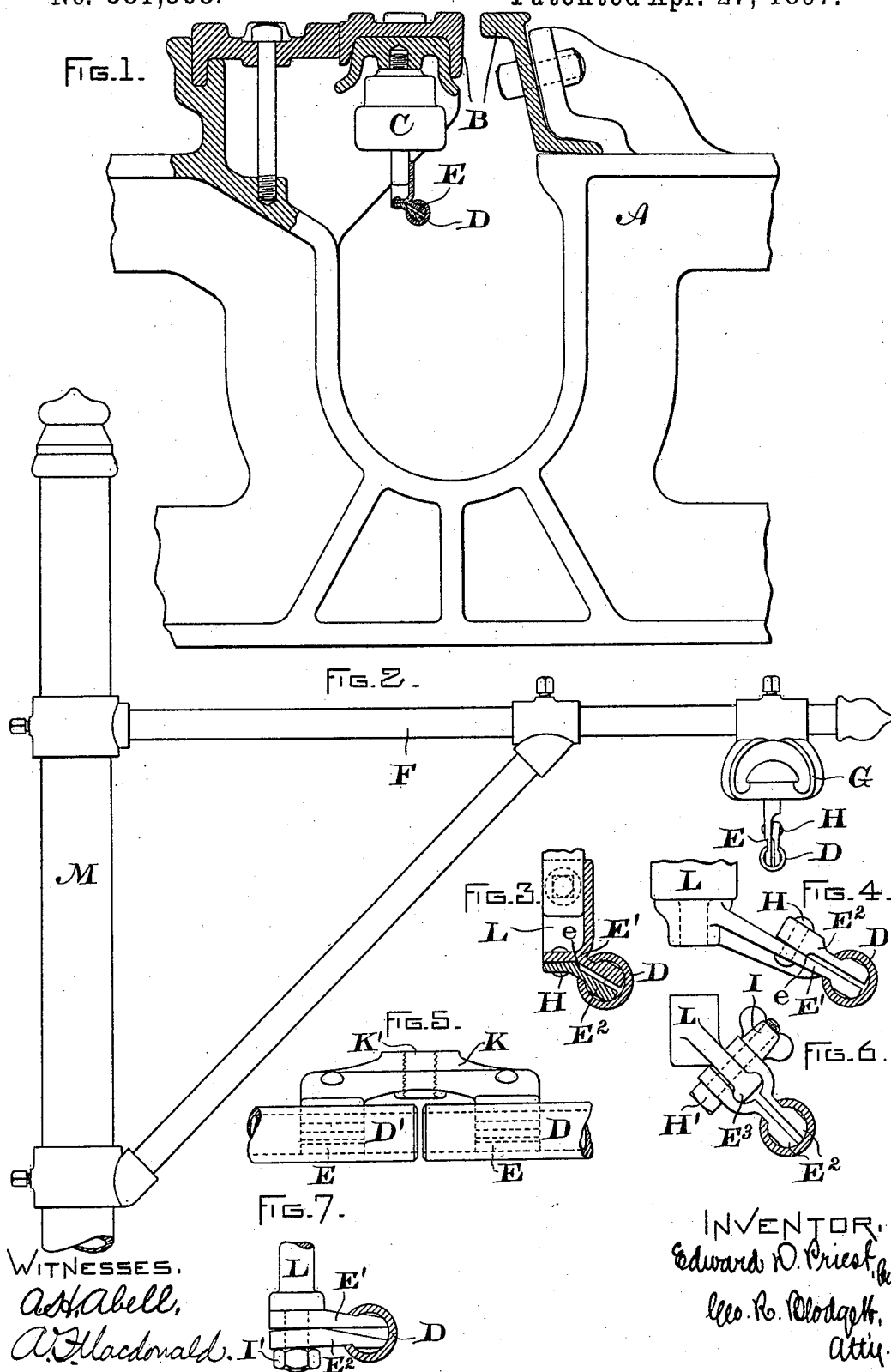


(No Model.)

E. D. PRIEST.
SUPPORT FOR ELECTRIC RAILWAY CONDUCTORS.

No. 581,368.

Patented Apr. 27, 1897.



UNITED STATES PATENT OFFICE.

EDWARD D. PRIEST, OF SCHENECTADY, NEW YORK, ASSIGNOR TO THE
GENERAL ELECTRIC COMPANY, OF NEW YORK.

SUPPORT FOR ELECTRIC-RAILWAY CONDUCTORS.

SPECIFICATION forming part of Letters Patent No. 581,368, dated April 27, 1897.

Application filed August 28, 1896. Serial No. 604,174. (No model.)

To all whom it may concern:

Be it known that I, EDWARD D. PRIEST, a citizen of the United States, residing at Schenectady, in the county of Schenectady, State of New York, have invented certain new and useful Improvements in Supports for Electric-Railway Conductors, (Case No. 408,) of which the following is a specification.

My invention relates to supports for the conductors of electric railways. It has equal application to conduits and to trolley-lines.

The present forms of supports for conductors are open to more or less objection, principally because they either, if they support the conductor from the top alone, depend upon solder for adherence, and consequently are liable to fracture, or, in case they partly surround the wire, they interrupt the continuity of contact of the trolley-wheel. In addition any inequality in the surface over which the wheel travels, and particularly where the car moves at high speed, occasions a hammer-blow upon the conductor-supports, the objections to which are well known. While these defects are not present to so marked an extent in a conduit, on account of the construction of the plow, they are noticeable and are to be avoided. To obviate these difficulties, I prefer to employ a tubular conductor and to engage its inner surface by means of suitable clamps, which may be of various forms. The conductor being supported entirely from this inner surface, presents an unbroken outer face to the contact device. At the same time the alinement is readily effected. Where the ends of two conductors are brought together, being supported in this way, they may be connected so as to form a good joint and at the same time present a smooth exterior surface.

The accompanying drawings show some of the many forms which my invention may assume.

Figure 1 is a partial section, principally in elevation, of a conduit with the conductor suspended therein. Fig. 2 is a trolley-pole in similar view. Figs. 3 and 4 are enlarged details. Fig. 5 is a view in side elevation of two conductors joined. Figs. 6 and 7 are modified forms.

All of the views show the common feature

of a clamp which may be inserted within the opening in a tubular conductor and then expanded so as to engage with the inner surface. When in the expanded position the clamp cannot be withdrawn. It is manifest that various means for effecting this expansion may be employed.

In Fig. 1, A is one of the conduit-yokes. B B are the slot-rails. The different parts of the conduit are not particularly described, inasmuch as they may be indefinitely varied and do not concern my invention. C is an insulator of common form. D is the tubular conductor, and E is the clamp.

In Fig. 2, M is the trolley-pole, and F the bracket. G is an insulator. D is the tubular conductor. E is the clamp, and H is the means for expanding the clamp after it is brought into position.

Figs. 3 and 4 show the device on a larger scale, L being the supporting member, of whatever type may be used. D is the conductor, as before. E' is a fixed portion of the clamp. E² is a movable part, and H is a rivet securing the parts together. The part E² has at e a bearing upon the part E', and the compression of the rivet tends to draw the ends of the members of the clamp apart, so that they engage with the inner surface of the conductor.

In Figs. 6 and 7 I show obvious modifications of the device, the rivet H being replaced in Fig. 6 by a bolt H', provided with a wing-nut I. Both members of the clamp in this case are movable, and the supporting part L is formed with a lug E³, through which the bolt passes and with which both of the movable parts of the clamp engage.

In Fig. 7 the supporting portion L is in the form of a stud having a shoulder and having its lower portion threaded. A nut I' draws apart the movable piece E² of the clamp from the fixed portion E', as before.

Fig. 5 shows the means for joining two conductors, to which I have referred. The yoke K, formed with a threaded portion K' for engaging with an insulator, has two of the clamps E fixed to its opposite ends, one of these engaging with the conductor D, the other with the conductor D'. The conductors are shown as slightly separated for clearness

of illustration, but it is manifest that in practice they would be approached to touch one another.

What I claim as new, and desire to secure
5 by Letters Patent of the United States, is—

1. A support for a tubular conductor, consisting of a clamp having separable members adapted to engage with the inner surface of the conductor, and means for separating the
10 members of the clamp after they are placed in position.

2. In combination with a tubular conductor or conductor having an inner and outer surface, a clamp formed of two portions adapted
15 to engage the inner surface of the conductor,

and a bolt or rivet for separating the members of the clamp when in position.

3. As a new article of manufacture, a clamping device for a tubular conductor, comprising a clamp, the members of which are adapted to be spread apart when placed within
20 the conductor, and means for separating the members, consisting of a suitable bolt or rivet.

In witness whereof I have hereunto set my hand this 27th day of August, 1896.

EDWARD D. PRIEST.

Witnesses:

A. F. MACDONALD,
E. W. CADY.