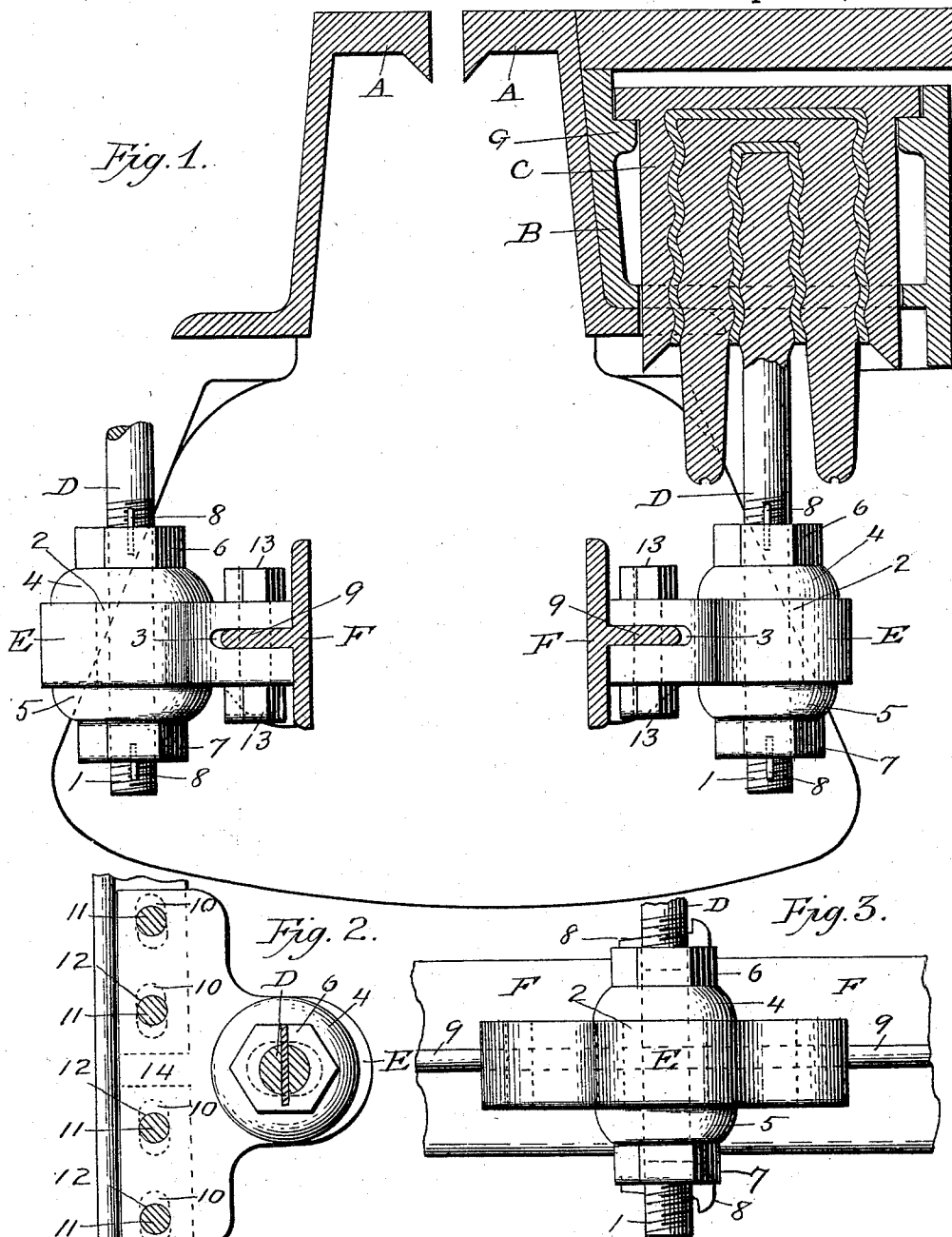


(No Model.)

H. A. BELDEN.
ELECTRIC RAILWAY CONDUIT SYSTEM.

No. 537,626.

Patented Apr. 16, 1895.



Witnesses:

Albert B. Blackwood.
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UNITED STATES PATENT OFFICE.

HARRY A. BELDEN, OF WASHINGTON, DISTRICT OF COLUMBIA.

ELECTRIC-RAILWAY CONDUIT SYSTEM.

SPECIFICATION forming part of Letters Patent No. 537,626, dated April 16, 1895.

Application filed January 26, 1895. Serial No. 536,324. (No model.)

To all whom it may concern:

Be it known that I, HARRY A. BELDEN, a citizen of the United States, residing at Washington, District of Columbia, have invented certain new and useful Improvements in Electric-Railway Conduit Systems; 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.

My invention has relation to conduit systems for electric railways, and the object is to provide means for supporting and adjusting the main conductors in the conduit, whereby the conductor may be universally adjusted in relation to the trolley and the sections of the conductor in alignment, vertically, laterally, and longitudinally.

In the accompanying drawings, Figure 1 is a transverse vertical section through the conduit, showing my invention applied in relation thereto. Fig. 2 is a plan view of the conductor-support; and Fig. 3 is a rear view in elevation of the support and conductor.

A designates the slot rail of the conduit, by the side of which is fastened a chamber B, having disposed therein a support G adapted to receive an insulator case C, wherein is secured the bolt or rod of my improved support for the conductor. This particular portion of the device may be of any suitable construction adapted to securely hold the conductor in insulated relation to ordinary track structure.

I have illustrated what is considered an efficient and reliable means for holding and insulating the supporting rod; but no claim is made to the same, because my invention is independent of the means for securing and holding it in position.

D designates a rod or bolt having its upper portion secured in any suitable insulating material, and having its lower portion or body provided with screw-threads 1. On this bolt D is arranged a bracket E, provided with an elongated aperture 2, through which the bar D is projected. The bracket E, at its projecting portion, is preferably lengthened longitudinally in the direction of the conductor, and is provided with a seat or slot, 3, in its end-space, to receive a web or lateral flange formed on the conductor. Washers, or clamping-

plates 4, 5, are arranged on the bolt D above and below the bracket E, which set on the respective faces on the part of the bracket through which the supporting bolt passes; and adjusting nuts 6 and 7, on the bolt set and securely fix the washers on the bracket, and hold the bracket firmly in any set position to which the adjustment may be made. The adjusting nut 6 and the washer 4 may be made in one piece and the same with 5 and 7. The adjusting nuts may be locked in position by any fastening means, as by keys 6, let through the bolt and taken in ways or grooves formed in the outer faces of the nuts, or by any other suitable or desirable means.

F designates the conductor, consisting, preferably, of a plate or tread-flange arranged vertically so that the trolley or contact may bear on its inner face, and formed with a lateral flange 9, which sets in the seat-way or slot 3 in the bracket E. In the flange 9 are formed elongated bolt-holes 10, through which bolts 11, projected through apertures 12, in the bracket E, are passed; the bolts being clamped or tightened by nuts 13, on the threaded-ends of the bolts, or by pins which may be used instead of bolts, the meeting or adjacent ends of the conductors being laid with a space 14 between them to permit longitudinal adjustment, and allow for expansion and contraction.

It will be perceived from the foregoing that means are provided whereby the vertical, and lateral adjustment may be made to place the conductor supported thereby to alignment with the sections of the connected continuations of the conductor; and that means are also provided whereby the laps or connections of the conductors may be longitudinally adjusted, and at the same time, space afforded which provides for the contraction and expansion of the conductors.

In order to insure the proper longitudinal alignment of the conductor F, and to prevent accidental lateral displacement of the bracket or casting E, it will be understood that suitable wedges or cotter keys may be inserted in the elongated aperture 2 between the rod or bolt D and the inner vertical walls of said bracket.

I desire it to be understood that slight changes in the details of my exact device as

illustrated and described may be resorted to without departing from the spirit of my invention.

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

1. In an electric railway conduit system, a conductor-support comprising a vertically arranged screw-threaded support, a bracket on the said screw-threaded support, said bracket
10 having both vertical and lateral adjustments on the support, and a conductor provided with a lateral flange adapted to rest in a recess in the end-face of the bracket, substantially as shown and described.
2. In an electric railway conduit system, a conductor-support, comprising a screw-threaded support, a bracket formed with a seat in its end face to hold the conductor and having both vertical and lateral adjustments on
20 the screw-threaded support, adjusting-nuts above and below the bracket to adjust it vertically, and a conductor having a lateral flange bolted to the projecting portion of the bracket, substantially as shown and described.
3. In an electric railway conduit system, a conduit support, comprising a vertically arranged insulated support provided with screw-threads on its body, a laterally and vertically adjustable bracket on the support, said
30 bracket being provided with a seat or recess and having an elongated aperture, adjusting-nuts to regulate and adjust the position of the bracket on the support, a conductor formed with a lateral flange to set in the seat of the bracket, and means to hold the conductor in
35 the bracket, substantially as shown and described.
4. In an electric railway conduit system, a conductor support, comprising a vertically ar-

anged screw-threaded insulated support, a
laterally and vertically adjustable bracket on
the support, and a longitudinally adjustable
conductor seated in a recess in the end face
of the bracket, substantially as shown and de-
scribed.

5. In an electric railway conduit system, a
conductor support, comprising a vertically
supported insulated threaded-bar, adjusting
nuts on the threaded-bar, a bracket having
both vertical and lateral adjustments and
50 adapted to be held and clamped between the
adjusting-nuts, and provided with a con-
ductor-seat in its end face, a conductor having
a vertical flange, and a lateral flange to rest in
the seat of the bracket, and provided with
55 elongated apertures, and clamping-bolts pro-
jected through the bracket and elongated
apertures in the lateral flange of the con-
ductor, whereby the conductors may be ad-
justed laterally, longitudinally and vertically,
60 substantially as shown and described.

6. In an electric railway conduit system, a
conductor-support, comprising a screw-
threaded support, a bracket having an elon-
gated aperture through which the support is
65 projected, adjusting nuts above and below
the bracket, and a conductor bolted to a re-
cess in the projecting portion of the bracket,
said bracket having vertical and lateral ad-
justments on the screw-threaded support,
70 substantially as shown and described.

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

HARRY A. BELDEN.

Witnesses:

A. O. BABENDREIER,
WM. A. HEINDLE.