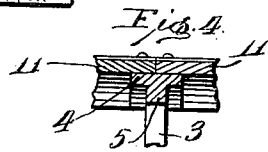
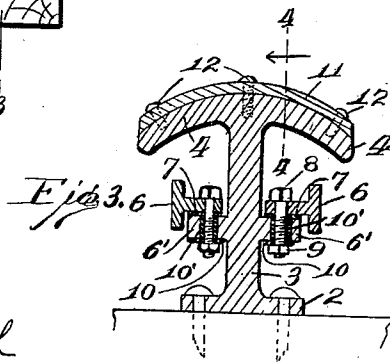
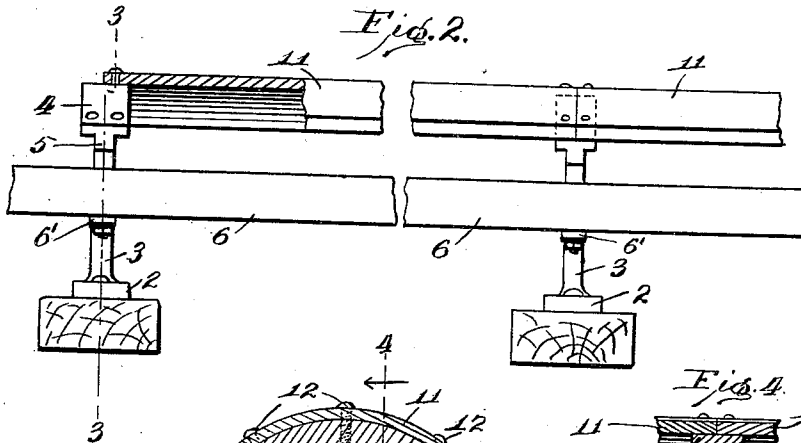
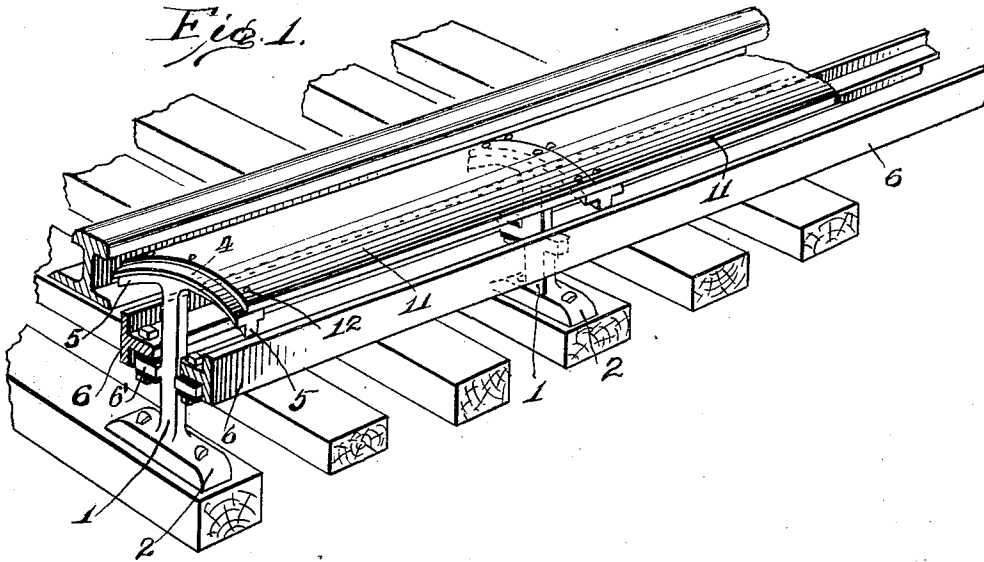


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THIRD RAIL SYSTEM.
APPLICATION FILED JAN. 29, 1908.

921,508.

Patented May 11, 1909.



WITNESSES:
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THIRD-RAIL SYSTEM.

No. 921,508.

Specification of Letters Patent.

Patented May 11, 1909.

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To all whom it may concern:

Be it known that I, YORKE BURGESS, a citizen of the United States, residing at Washington, in the District of Columbia, have invented certain new and useful Improvements in Third-Rail Systems; 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.

This invention relates to improvements in electrical conductors and supports therefor, and particularly to the type known as third rail.

One of the objects in view is the provision of a complete metallic circuit, the rails constituting the sides of which are so guarded as to be largely protected against climatic conditions, and insulated against leakage while at the same time readily accessible for brushes or shoes for taking off current.

With this and further objects in view, the invention comprises certain novel constructions, combinations and arrangements of parts as will be hereinafter fully described and claimed.

In the accompanying drawing,—Figure 1 is a perspective view of a fragment of a structure embodying the features of the present invention. Fig. 2 is a side elevation thereof, parts being shown in section. Fig. 3 is a vertical section taken on the planes indicated by line 3, 3 of Fig. 2. Fig. 4 is a vertical section taken on the plane indicated by line 4, 4 of Fig. 3.

Referring to the drawing by numerals, 1, 1 are the supporting stands which are usually fixed to the cross ties or otherwise suitably, rigidly mounted at the side of the road bed, and each comprises a suitable base 2, a vertical, central stem 3, preferably arched, transverse flanges 4, 4 stiffened by depending ribs or webs 5, and preferably formed integral with the upper end of the stem 3, and laterally extending lugs or blocks 6', 6' projecting from the sides of the stem 3 and preferably formed integral therewith. The lugs or blocks 6' are disposed intermediate the length of the stem 3, and are preferably positioned as near the flanges 4 as is admissible while facilitating the ready approach of a contact brush or shoe to the conductor rails 6, 6 sustained by said lugs. Each of the rails 6 is preferably of the T-rail type and has

its horizontal flange overhanging the respective lug 6' and is insulated therefrom by an insulating washer 7. The horizontal flange of the T-rail 6 is securely connected with the lug 6' by any suitable bolt 8 which is passed through the flange and through the lug, and securely retained in position by the nut 9 which clamps an insulating washer 10 against the lug 6', the body of the bolt 8 being insulated from the lug 6' by a surrounding sleeve 10' of insulating material.

The rails 6 extend continuously along the track and are connected to and supported by the several stands 1, and in order to protect said rails against rain and other climatic conditions, I provide a roof therefor consisting preferably of covering sections 11, 11, each section extending from the central line of the flanges 4 of one stand to the central line of the flanges 4 of the next stand, the roof section being suitably secured in place as by bolts 12, 12 passed therethrough and into the material of the respective stand. The flanges 4 are made of sufficient width to form a good support for the respective ends of the contiguous roof sections, and each of the roof sections may be constructed of any preferred material, as wood or other substance found best adapted for the purpose.

By employing the arrangement specified, the rails 6, 6 present continuous flat surfaced conductors which are readily accessible and which provide a complete metallic circuit and are at the same time largely guarded against deteriorations from climatic conditions. Obviously the stands may be arranged in any desired relation to the track, but preferably are arranged at one side thereof, and any suitable shoes or brushes may be utilized for taking off current by a sliding contact with the exposed flat faces of the rails 6.

What I claim is:—

1. A conductor stand, comprising a stem, conductor supports projecting from the opposite sides thereof and supported thereby, and a roof support sustained by the stem above the conductor supports.

2. A conductor stand, comprising a stem, conductor supporting lugs projecting from the opposite sides of said stem and supported thereby, and flanges above the lugs formed integral with the stem and overhanging the lugs and adapted to support roofing above the lugs.

3. A conductor stand, comprising a stem, a lug formed integral with each side thereof and projecting laterally therefrom, said lugs being adapted to sustain conductors, and
5 flanges projecting laterally from, supported by and connected with the upper end of the stem and overhanging the lugs, and positioned for overhanging conductors sustained by the lugs, the said flanges being adapted to
10 support roofing.

4. A conductor stand, comprising a base, a stem rising therefrom, roof supporting flanges formed integral with and projecting laterally from the upper end of the stem,
15 strengthening ribs for said flanges, and conductor supporting lugs projecting laterally from the opposite sides of the stem in position for being overhung by the flanges.

5. In a third rail system, the combination
20 of stands, each formed with laterally projecting lugs extending on opposite sides thereof and supported thereby, conductor angle-rails having their horizontal flanges supported by and insulated from said lugs, and a
25 roof sustained by said stands above and overhanging said rails.

6. In a third rail system, the combination of stands formed with overhanging flanges and with laterally projecting lugs on oppo-

site sides supported thereby, conductor rails
30 supported by and insulated from said lugs, and roof sections extending from a point above the flange of one stand to a point above the flange of the next contiguous stand, and secured thereon, said roof sections
35 being positioned to overhang said rails.

7. In a third rail system, the combination of rail stands spaced apart and each formed with a stem and two conductor supports projecting therefrom and supported thereby,
40 and a conductor rail supported by each of the conductor supports on each stand in position for exposing a continuous contact surface for a collecting brush or shoe, and a
45 roofing for guarding said conductor rails.

8. A device of the class described, comprising a T-shaped conductor stand having laterally projecting conductor supporting lugs formed integral with the central, vertical stem of the stand intermediate the length
50 thereof.

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

YORKE BURGESS.

Witnesses:

DURANT CHURCH,
CHRISTIE H. FESLER.