

(No Model.)

J. L. REYNOLDS.
ELECTRIC RAILWAY CONDUIT.

No. 498,189.

Patented May 23, 1893.

Fig. 1

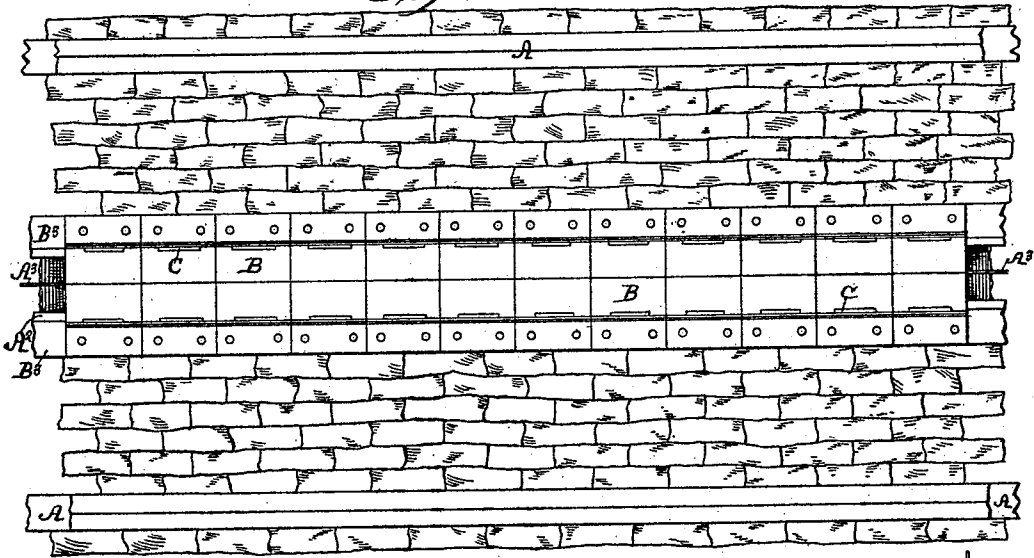


Fig. 2

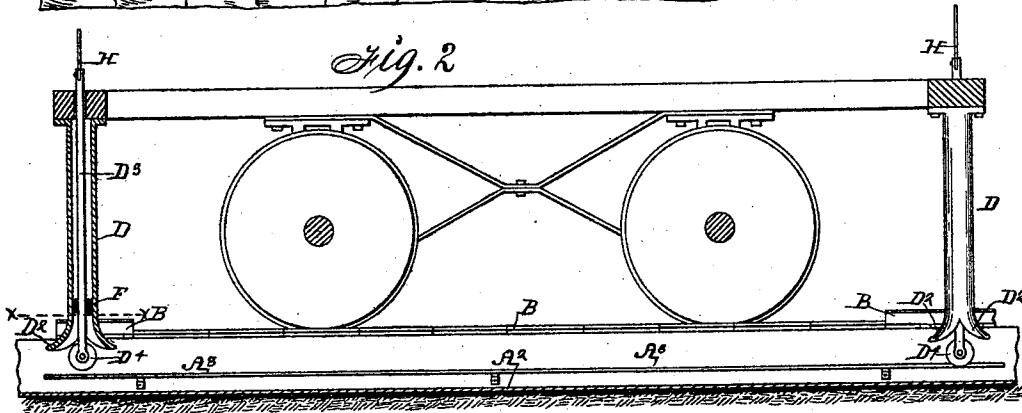


Fig. 3

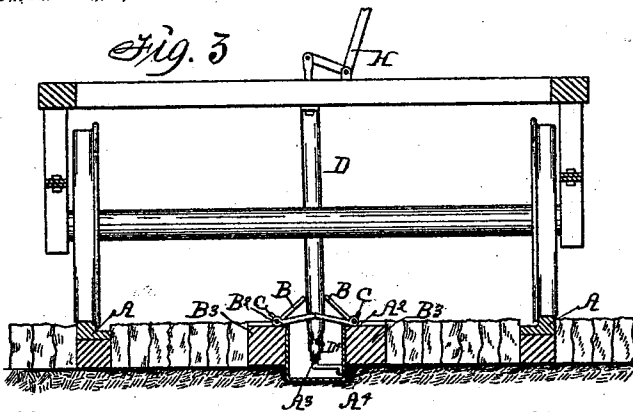


Fig. 4

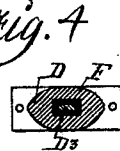
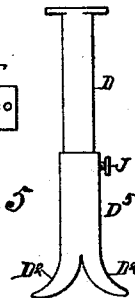


Fig. 5



Witnesses:
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UNITED STATES PATENT OFFICE.

JOSEPH L. REYNOLDS, OF WINTERSSET, IOWA.

ELECTRIC-RAILWAY CONDUIT.

SPECIFICATION forming part of Letters Patent No. 498,189, dated May 23, 1893.

Application filed July 23, 1892. Serial No. 440,996. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH L. REYNOLDS, a citizen of the United States, residing at Winterset, in the county of Madison, in the State of Iowa, have invented a new and useful Electric-Railway System, of which the following is a specification.

My object is to provide an improved trolley support to depend from an electrically propelled vehicle to enter a slotted conduit containing an electrical conductor, to provide a continuity of electrical conductors from said conductor in the conduit to a motor carried by said vehicle and to provide improved means for normally closing the top of said conduit and at the same time permitting said trolley support to have access to the interior thereof.

My invention consists in certain details in the construction of said depending trolley support, and in details in the construction of the hinged metal sections for covering the conduit, as hereinafter set forth, pointed out in my claims, and illustrated in the accompanying drawings, in which—

Figure 1 is a top or plan view of a section of a railway track, having my improved conduit located between its rails. Fig. 2 is a vertical, longitudinal, sectional view of the trucks of a railway car, having depending therefrom two trolleys which are placed within the conduit as in practical use. Fig. 3 is a vertical, transverse sectional view of the trucks of a car, mounted on the track and my improved conduit located between the rails and having a trolley placed therein and secured to the car. Fig. 4 is a transverse sectional view through the line X—X of Fig. 2. Fig. 5 is a detail view of one of the trolley supports in which means are shown for its vertical adjustment.

Referring to the accompanying drawings the reference letter A is used to designate a railway track which is of ordinary construction.

A² designates a subterranean open-topped conduit having an electrical conductor A³ contained therein upon supports A⁴.

B designates hinged metal sections mounted upon the top and sides of the conduit A² and extending from each side thereof and meeting in its approximate center. They are sup-

ported in a position inclining from their meeting point downwardly, and are supported in this position by means of the strips B² to provide means for shedding rain, &c. These sections are fixed to the wooden blocks B³ which lie adjacent to and parallel with the conduit.

C designates stops formed on or fixed to the metal sections B in such a manner as to engage the stationary parts of the hinged sections and thereby prevent a movable portion of the hinged sections from attaining a vertical position, so that the said sections will automatically close by gravity when released.

To provide means for conducting a current of electricity from the electrical conductor within the conduit, to a car, I employ the following devices: D designates a metal shoe adapted to enter the conduit and having formed on its lower end wedge shaped projections D² extending in opposite directions and longitudinally of the conduit. These projections D² are adapted to enter the conduit and when advanced therein elevate the sections D. D³ designates a trolley support extended through the hollow interior of a shoe D and provided with a trolley D⁴ on its lower end. This support is insulated from the shoe D by means of a block of insulating material F which allows a vertical adjustment of the trolley support. H designates means for providing for the vertical adjustment of the trolley from the car, and in Fig. 5 the lower section D⁵ of the shoe D is made larger than the upper section so that the two sections may be telescoped and J designates a set screw by which the lower section thereof may be fixed in an elevated position.

In its practical operation the shoe D is placed within the conduit and the trolley D⁴ lowered into contact with the electrical conductor. A continuity of electric conductors is thereby formed between the electrical conductors A³ and the trolley support D³ which may be connected with a motor on the car in the common manner. As the car is advanced the wedge shaped projections of the shoes D engage the end surfaces of the hinged sections B and elevate them sufficiently to allow the said shoes to pass through between them. The trolley D⁴, it will be seen, may readily be thrown out of contact with the electrical con-

ductor A³ by a manipulation of the lever H, or the lower section D⁵ of the shoes D may be elevated above the conduit and secured by the set screw J as shown in Fig. 5.

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

1. In combination with a subterranean conduit for electrical conductors, a plurality of
10 comparatively short metal sections hinged at the sides of the top of the conduit to meet in the center thereof for the purposes stated, a projection formed integral with the top surface of each section to engage the sides of the
15 top of the conduit and prevent the section from reaching a vertical position so that said sections will automatically assume a closed position, for the purposes stated.

2. In combination with an electric car, a
20 shoe depending therefrom and having formed on its lower end two wedge shaped projections oppositely disposed and extended longitudinally of a car, a trolley support extended through the said shoe and insulated therefrom
25 and adapted to move vertically therein, means for elevating the said trolley support and

means for elevating the lower end of said shoe substantially in the manner set forth and for the purposes stated.

3. In combination with a subterranean conduit for electrical conductors, a plurality of
30 comparatively short metal sections hinged at the sides of the top of the conduit to meet in the center thereof for the purposes stated stops formed on or fixed to the said hinged
35 sections to prevent them from falling backward, and an electric car carrying a shoe depending therefrom and having formed on its lower end two wedge shaped projections oppositely disposed and extended longitudinally
40 of the car and adapted to enter the conduit, a trolley support extended through the said shoe and insulated therefrom, and adapted to move vertically therein, means for elevating the said trolley support and means for elevat-
45 ing the lower end of said shoe, substantially in the manner set forth and for the purposes stated.

JOSEPH L. REYNOLDS.

Witnesses:

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