

(No Model.)

A. GREEN.
ELECTRIC CONNECTION FOR RAILWAY RAILS.

No. 513,777.

Patented Jan. 30, 1894.

Fig. 1.

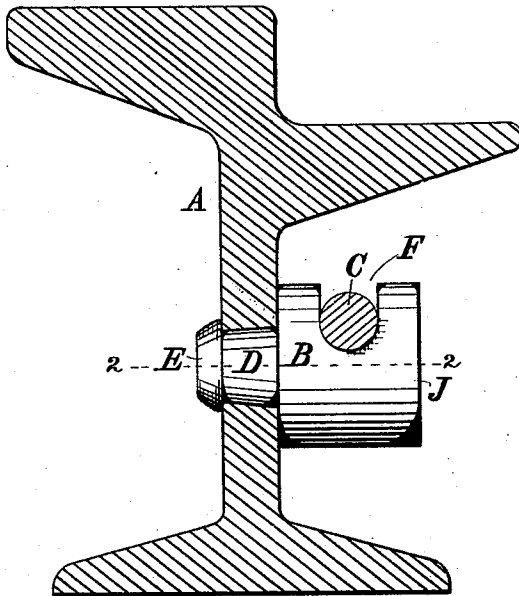


Fig. 3.

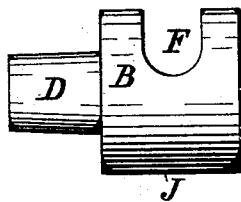


Fig. 4.

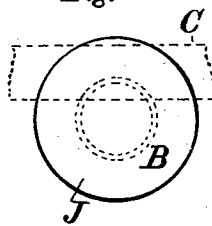
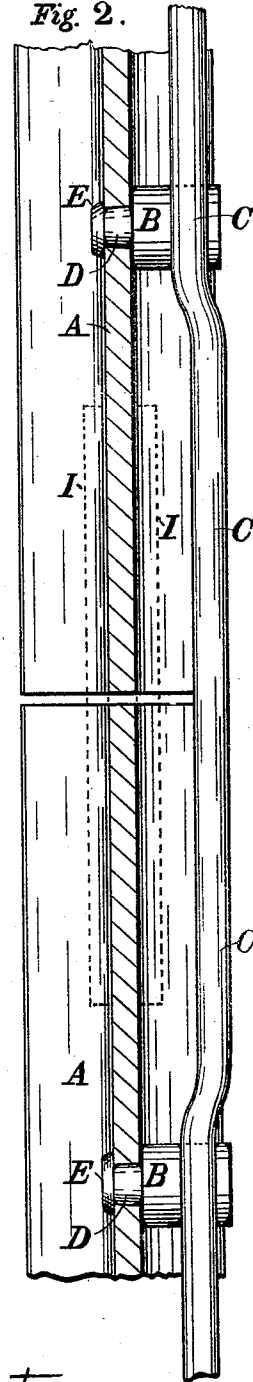


Fig. 2.



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UNITED STATES PATENT OFFICE.

ALFRED GREEN, OF ROCHESTER, NEW YORK, ASSIGNOR OF ONE-HALF TO
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ELECTRIC CONNECTION FOR RAILWAY-RAILS.

SPECIFICATION forming part of Letters Patent No. 513,777, dated January 30, 1894.

Application filed September 30, 1893. Serial No. 486,891. (No model.)

To all whom it may concern:

Be it known that I, ALFRED GREEN, a citizen of the United States, residing at Rochester, in the county of Monroe and State of New York, have invented an Improved Electric Connection for Railway-Rails, of which the following is a specification, reference being had to the accompanying drawings.

My invention relates to an improved connection for the rails of electric railways, whereby the return of the current is effected and the removal or substitution of a rail permitted without interruption of said current, which improvement is fully described and illustrated in the following specification and the accompanying drawings, the novel features thereof being specified in the claim annexed to the said specification.

My improved connection for the rails of electric railways is represented in the accompanying drawings, in which—

Figure 1 is a transverse section of a rail and conducting wire, showing the wire-connection in place in elevation. Fig. 2 is a horizontal longitudinal section of the ends of two adjacent rails, showing the wire-connections in place. Figs. 3 and 4 are views of the wire-connection detached.

In the accompanying drawings, A represents the rail, B the wire-connection, and C the electric conductor, or return-current wire.

II represent the fish-plates. The rails may be of any usual or preferred type. At suitable distances from each end the webs of the rails are perforated for the insertion of the stems D of the wire-connections B. The wire-connections are provided with an enlarged head J, in one side of which is formed a transverse slot F adapted to receive the conducting wire C. The bottom of this slot is circular, to fit the wire, which is soldered therein when the track is connected up. The stem D may be made slightly tapering, and its outer end is riveted over, as indicated at E, to secure the connection to the rail. The stem and the surface of the head J next the rail are

turned,—this surface being preferably turned up true, so as to make a close joint with the side of the rail. The stem is driven in tight into the rail, so as to make a metallic contact which is proof against corrosion. The return wire C extends along the web of the rails, being connected thereto at the ends and at intermediate points, if desired. The wire may be bent outward to pass the fish-plates, as indicated in Fig. 2. The wires on the opposite rails may be connected together in any suitable way. In case it is desired to remove a rail, the wire is simply unsoldered from the connections, without disturbing it otherwise, and without interrupting the continuity of the electric circuit, and another rail substituted, the connections inserted, and the wire again soldered to them.

My improved connection is simple and cheap, easily applied, and reduces the number of joints between the rails and the conducting wire, whereby I secure a reduction in the resistance to the return circuit, and consequently greater economy in the operation of the line.

The wire-connection is preferably cast, of brass or copper. The wire may be secured in the slot by any means other than soldering which will permit the ready removal of the conductor.

I claim—

The combination with the rails of an electric railway of the conductor wire C and wire connections B, provided with stems D and slots F, said wire being removably fixed in the slots and the wire extending and supported beyond the ends of one or more rails in each direction whereby when the wire is unfastened, as by unsoldering, said rails may be removed without interrupting the current, substantially as set forth.

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