I. W. BURGESS.

RAIL BOND.

APPLICATION FILED MAY 26, 1911.

1,006,354.

Patented Oct. 17, 1911.

Fig. 1

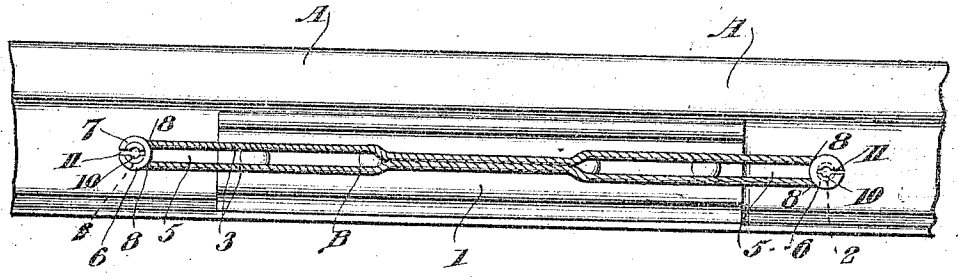


Fig. 2

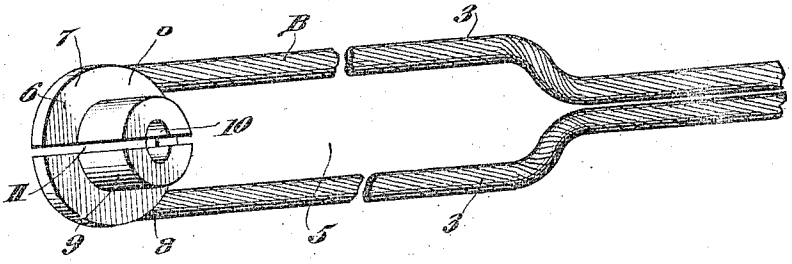


Fig. 3.

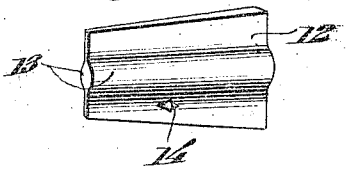
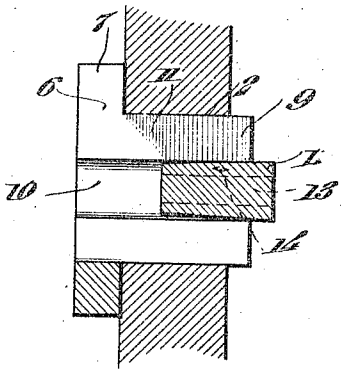


Fig. 4



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RAIL-BOND.

1,006,354. Specification of Letters Patent. Patented Oct. 17, 1911.

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To all whom it may concern:

Be it known that I, IRA W. BURGESS, a citizen of the United States, residing at Minden, in the county of Fayette and State of West Virginia, have invented new and useful Improvements in Rail-Bonds, of which the following is a specification.

The present invention relates to a novel and improved form of rail joint for electric railways.

In carrying out my invention, it is my purpose to provide a rail joint through the medium of which the rails may be electrically connected, the bond or joint being of such construction that it may be employed either outside of the fish plates, or between the fish plates and the sides of the rail.

Still a further object of my invention is to produce a bond which is in the nature of a metallic cable or rope, and which is provided with means whereby it may be secured in position to electrically connect the rails, said attaching means being removable, when desired, so that the rail bonds may be reused.

With the above-recited objects, and others of a similar nature in view, the invention consists in the construction, combination and arrangement of parts, set forth in and falling within the scope of the appended claim.

In the accompanying drawing:—Figure 1 is a view in side elevation of two adjoining sections of rails, showing my improved bond connecting the same. Fig. 2 is a perspective view of a rail bond embodying my invention. Fig. 3 is a similar view of the retaining wedge. Fig. 4 is a cross sectional view, taken through the bond terminal and the wedge therein.

Referring now to the accompanying drawing in detail, the letters A—A′ indicate two sections of rails placed end-to-end, and connected to the usual fish plate 1, said rails being designed to act as a conductor in the ordinary manner. The rails are provided with bores or openings transversely as at 2—2 for the reception of the terminals of my improved rail bond. This rail bond which is indicated as an entirety by the letter B is formed of the longitudinal members 3—3 composed of strands of twisted copper wire. The central portion of the two members of the bonds are depressed so as to extend parallel, while at the ends of the bond the cables form loops 5—5 in conjunction with the terminal members 6.

Each terminal member comprises preferably a circular head 7 having connected thereto the ends 8—8 of the cable bond, said head having a tubular member or shank 9 extending laterally therefrom, the numeral 10 indicating the bore or opening through each shank. Each terminal is split or slotted as at 11, said slot extending entirely across the tubular shank, and also bisects the head of the terminal, but terminates at one end in the body of the head. When the bond is to be used, it is placed alongside the rails, the tubular shanks projecting through the bores 2 so that the rail ends are connected by the bond. The shanks projecting laterally through the webs of the rail ends are now in position to receive the fastening means, and in the present instance I have shown an improved form of fastening or retaining device for the bond. This device is in the nature of a wedge, and is indicated as an entirety by the numeral 12. As will be seen from the drawings, it comprises a wedge-shaped plate member tapering from the outer toward the inner end and is relatively thicker at the outer end than at the inner. At the center of the plate I provide the ribs 13—13 one on each side of said plate, said ribs being also suitably tapered, while each side of the plate is formed with an outwardly projecting spur 14.

In use, after the shanks of the bond have been inserted through the openings or bores in the rail ends, the narrow thin end of the wedge is inserted in the mouth of slot in the shank, the widened central or rib portion of the wedge lying within the central bore of the shank. The wedge is now driven home by a few sharp blows with a hammer or other tool, so that the split shank is spread and binds the terminal to the rail, the spurs preventing the wedge from working loose when subjected to jars and shocks. When it is desired to remove the bond, the wedges may be driven by inserting a sharp bladed tool through the slot from the head side of the terminal and driving the wedge out. By this means the bond is rendered available for further use.

I claim:—

A rail bond comprising two terminal members each formed of a head portion and a tubular shank portion, each of said shank

portions having a slot extending lengthwise thereof, said slot also extending into the head of the terminal, conducting cables connecting the terminals of the heads thereof, and a wedge for each terminal comprising a tapered plate, ribs extending lengthwise of the plate at each side thereof, and spurs on the plates, said wedge being designed to be driven into the slotted shanks to spread the latter and fasten the terminal to the rail ends.

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

IRA W. BURGESS.

Witnesses:
DAVID LINDSAY,
MARION JOHNSON.