(No Model.)

F. MARSELLIS.

ELECTRIC CONNECTION BETWEEN RAILWAY RAILS.

No. 588,771. Patented Aug. 24, 1897.

Fig. 1.

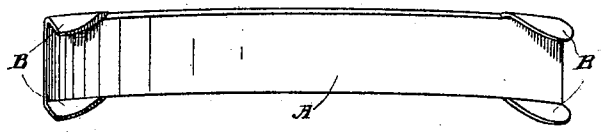


Fig. 2.

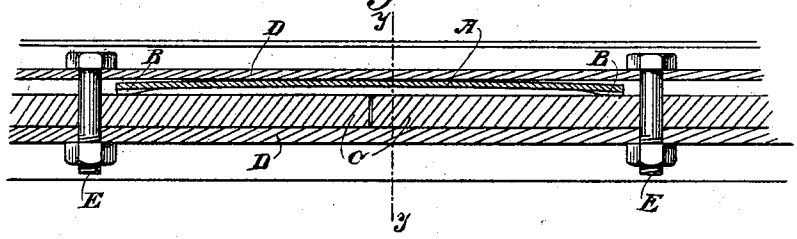
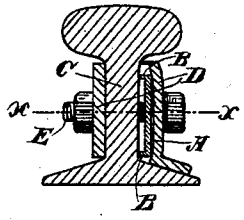


Fig. 3.



Witnesses,
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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

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ELECTRIC CONNECTION BETWEEN RAILWAY-RAILS.

SPECIFICATION forming part of Letters Patent No. 588,771, dated August 24, 1897.

Application filed May 13, 1897. Serial No. 636,328. (No model.)

To all whom it may concern:

Be it known that I, FORD MARSELLIS, a citizen of the United States, residing at Peralta, county of Alameda, State of California, have invented an Improvement in Electric Connections between Railway-Rails; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to a device for providing an electric connection between railway-rails. It consists of a curved elastic steel plate having the ends bent to one side and adapted to engage and make a metallic connection with the rail ends and a means for clamping or securing the plate in place, and in details of construction, which will be more fully described in the following specification.

In the accompanying drawings of my invention, Figure 1 is a perspective view of the connecting-plate. Fig. 2 is a horizontal section of the webs of abutting rails and the plate in position on line *x x*, Fig. 3. Fig. 3 is a transverse vertical section of the rail, connecting-plate, and fish-plate on line *y y*, Fig. 2.

A is a plate of steel, which I have shown bent into the form of a segment of any suitable or desired width and of a length sufficient to extend over the space between the rail ends. This length is preferably slightly less than the distance between the nearest bolt-holes by which the fish-plates are secured. The ends of this plate are curved or bent, as shown at B, so as to form sharp angles, edges, or contact-surfaces, and these contacts rest against the sides of the webs C of the rails. The fish-plates D are then placed over the connecting-plates A and are drawn down to their position by the usual holding-bolts E. The action of screwing these bolts down, forcing the fish-plate to its seat, will tend to partially straighten the elastic steel plate A and will force the contact-points B against the metal of the rail, thus making an intimate metallic connection. The fish-plates shown in this case are those ordinarily used, which are in the form of angle-plates, one flange of which rests upon the bottom flange of the rail and the other extends up by the side of the web, and being slightly concaved they leave a space for the introduction of my connecting-plate A. It will be seen that this plate will always maintain a perfect metallic connection between the rail ends, and any movement of the rail will tend to make it more complete by keeping the contact-surfaces bright. With light currents the sharp points or edges form sufficient contact, but for heavy currents the contact-surface is correspondingly increased.

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

1. A device for electrically connecting the ends of railway-rails, consisting of curved segmental conducting-plates adapted to span the space between the rails, and having their opposite ends bent or curved to one side to form contact with the rail-webs, and superposed fish-plates with holding-bolts whereby the conducting-plates are forced into contact with the rail-webs.

2. A device for electrically connecting the ends of abutting railway-rails, consisting of curved segmental conducting-plates, extending across the space between the rails, said plates having angular projections contacting with the rail-webs, and concavo-convex superposed fish-plates with securing-bolts whereby the conducting-plates are covered and the angles forced into intimate contact with the rails.

In witness whereof I have hereunto set my hand.

FORD MARSELLIS.

Witnesses:
S. H. NOURSE,
JESSIE C. BRODIE.