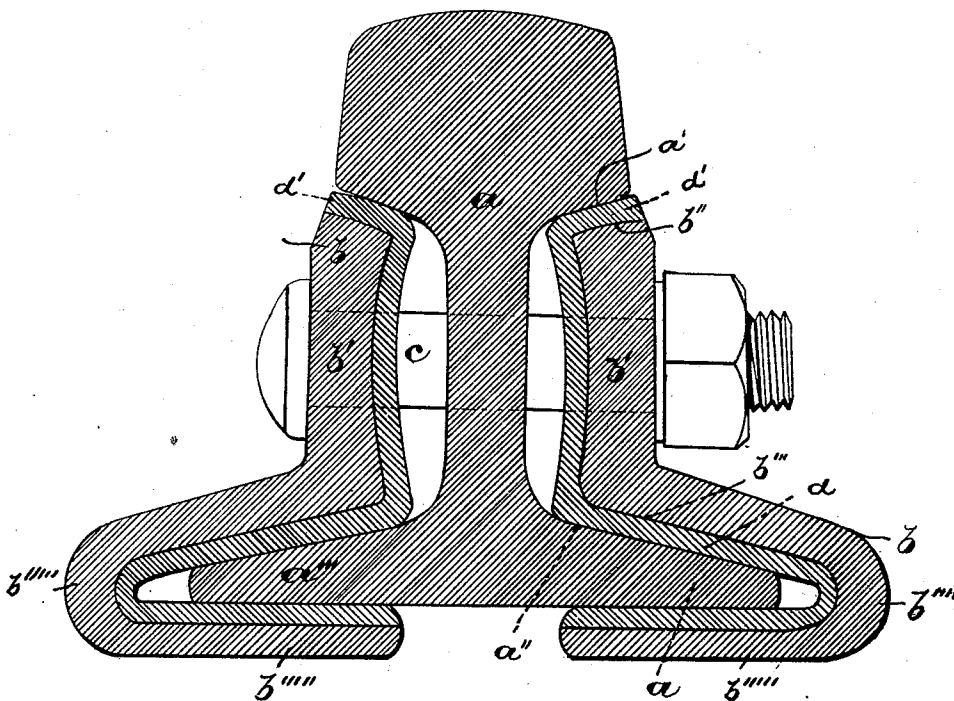


(No Model.)

F. T. FEAREY.
INSULATING FISH PLATE.

No. 582,907.

Patented May 18, 1897.



WITNESSES:

C. C. Titney.
Fr. Forster

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UNITED STATES PATENT OFFICE.

FREDERICK T. FEAREY, OF NEWARK, NEW JERSEY, ASSIGNOR TO THE
CONTINUOUS RAIL JOINT COMPANY OF AMERICA.

INSULATING FISH-PLATE.

SPECIFICATION forming part of Letters Patent No. 582,907, dated May 18, 1897.

Application filed March 22, 1897. Serial No. 628,617. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK T. FEAREY, a citizen of the United States, residing at Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Insulating Fish-Plates; 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, reference being had to the accompanying drawing, and to letters of reference marked thereon, which forms a part of this specification.

The object of this invention is to provide a simple, convenient, and durable insulating connection for railway-rails and to secure other advantages and results, some of which may be referred to hereinafter in connection with the description of the working parts.

The invention consists in the improved insulating fish-plate or connection for railway-rails and in the arrangement and combinations of parts thereof, all substantially as will be hereinafter set forth, and finally embraced in the clauses of the claim.

Referring to the accompanying drawing, and the letters of reference, which represents in cross-section a rail having my improvements, *a* indicates the rail; *b*, the opposite fish-plates.

c indicates a bolt clamping said opposite fish-plates to the rail, and *d* indicates the insulating material.

Each of the fish-plates comprises a vertical portion *b'*, having oppositely-inclined bearings *b'' b'''* at its upper and lower edges adapted to wedge between the correspondingly-inclined bearings formed beneath the tread, as at *a'*, and on the upper side of the flange *a''*, as at *a'''*. From the lower edges or portions of the said vertical portions *b'* are V-shaped extensions *b''''*, forming receptacles for the oppositely-tapering flanges *a''''* of the rail. On the inner sides of the said fish-plates are insulation-plates *d*, formed, preferably, of molded indurated fiber or other insulating material having the required durability and strength to resist the action of the cars upon

the rail and the capacity or quality to resist the flow or transmission of an electric current. Said insulation-plates *d* are inclined at the top, as at *d'*, between the inclined bearings *a'* and *b''*, and at the lower parts or edges are inclined laterally outward in correspondence with the inclines of the said rail-flanges. Said plates are then bent downwardly and backwardly to form a hollow tapering portion fitting the flaring recess or groove in the lower extensions of the fish-plates, so as to retain position therein by a frictional contact. Thus when attached to the fish-plates by a simple pressure said insulating-plates will be held in place on said fish-plates and will remain thereon while marketing the goods.

The insulating-plate *d* separates or insulates the fish-plate from the rail, the one bent or turned piece of insulating matter extending between the upper bearings *a' b'*, the lower bearings *a'' b'''*, and between the bottom of the rail-flange and the bottom horizontal parts *b''''* of the fish-plates.

By suitably incasing the bolts with insulating-jackets, the rails and fish-plates are thoroughly and effectively electrically disconnected from each other, as will be evident upon examination of the drawing.

Having thus described the invention, what I claim as new is—

1. The combination with the fish-plates having the vertical portion with inclined bearings at the upper and lower edges, and having at its lower edge a hollow flaring extension to receive the flange of the rail, of an insulating lining-plate extending over the opposite inclined bearings and into hollow extensions, substantially as and for the purposes set forth.

2. The combination with the rail having the tread and flange with oppositely-inclined bearings, of a fish-plate having a vertical portion with inclined bearings at the upper and lower edges and an extension bent or turned to form a hollow receptacle for the flange and an insulating-plate bent or formed at its upper edge to cover the upper inclined bearing of the fish-plate and at its lower part bent or

turned into said hollow receptacle and therein
being doubled to engage the upper and lower
sides of the rail-flange, the said plates hug-
ging the fish-plates, and thus being held in
5 operative relation thereto, substantially as
set forth.

In testimony that I claim the foregoing I

have hereunto set my hand this 4th day of
March, 1897.

FREDERICK T. FEAREY.

Witnesses:

CHARLES H. PELL,
C. B. PITNEY.