

No. 663,882.

Patented Dec. 18, 1900.

W. C. GREGG.
RAIL CONNECTION FOR RAILWAYS.
(Application filed Mar. 22, 1900.)

(No Model.)

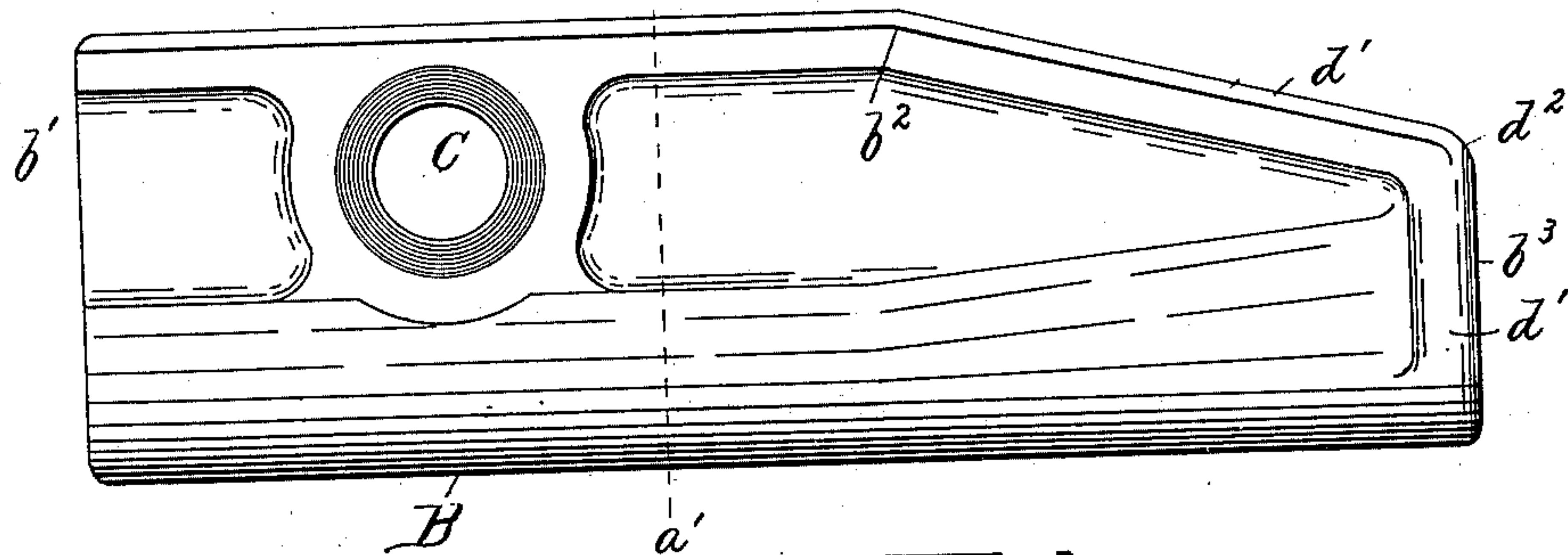


Fig. 1

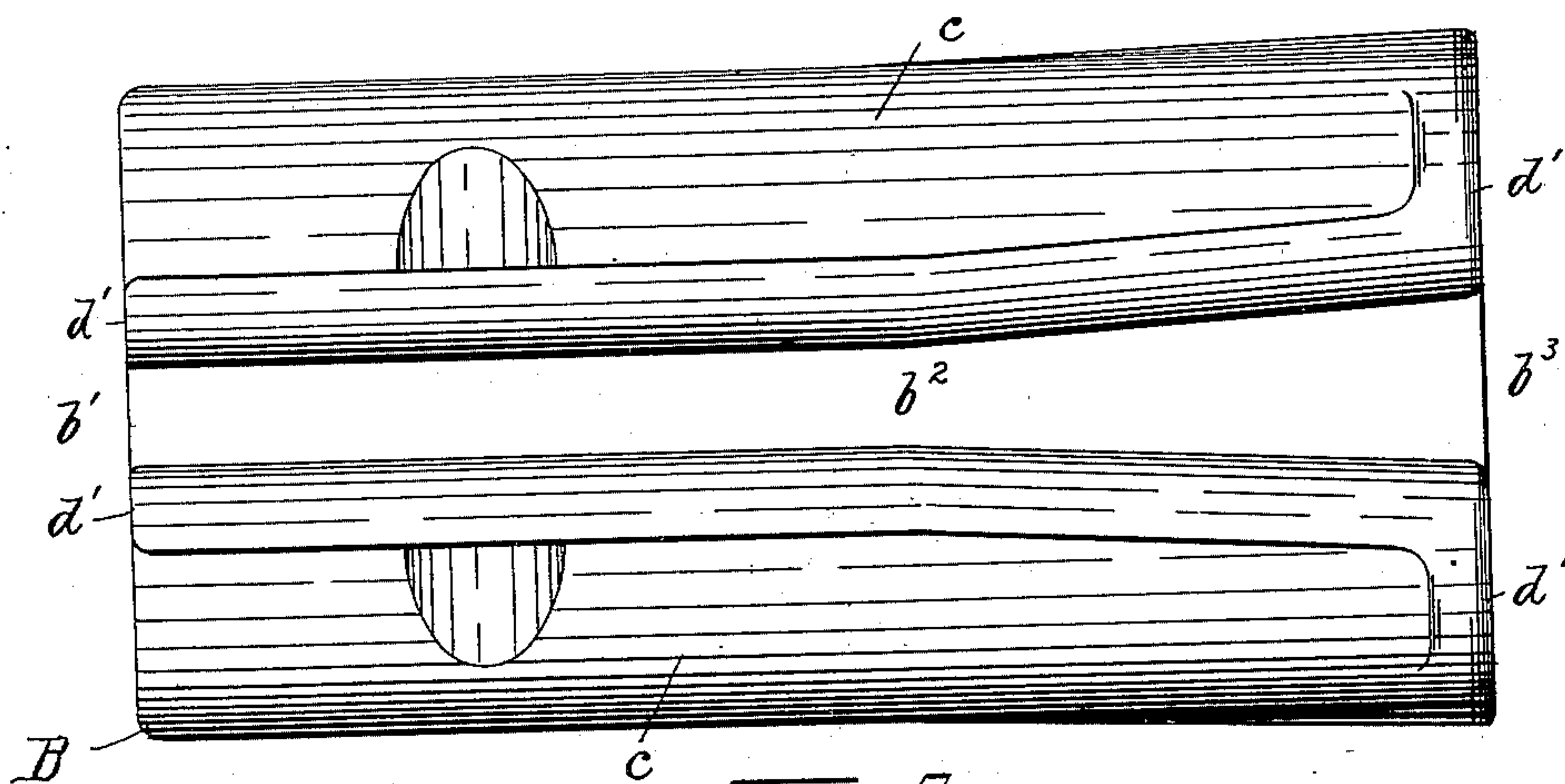
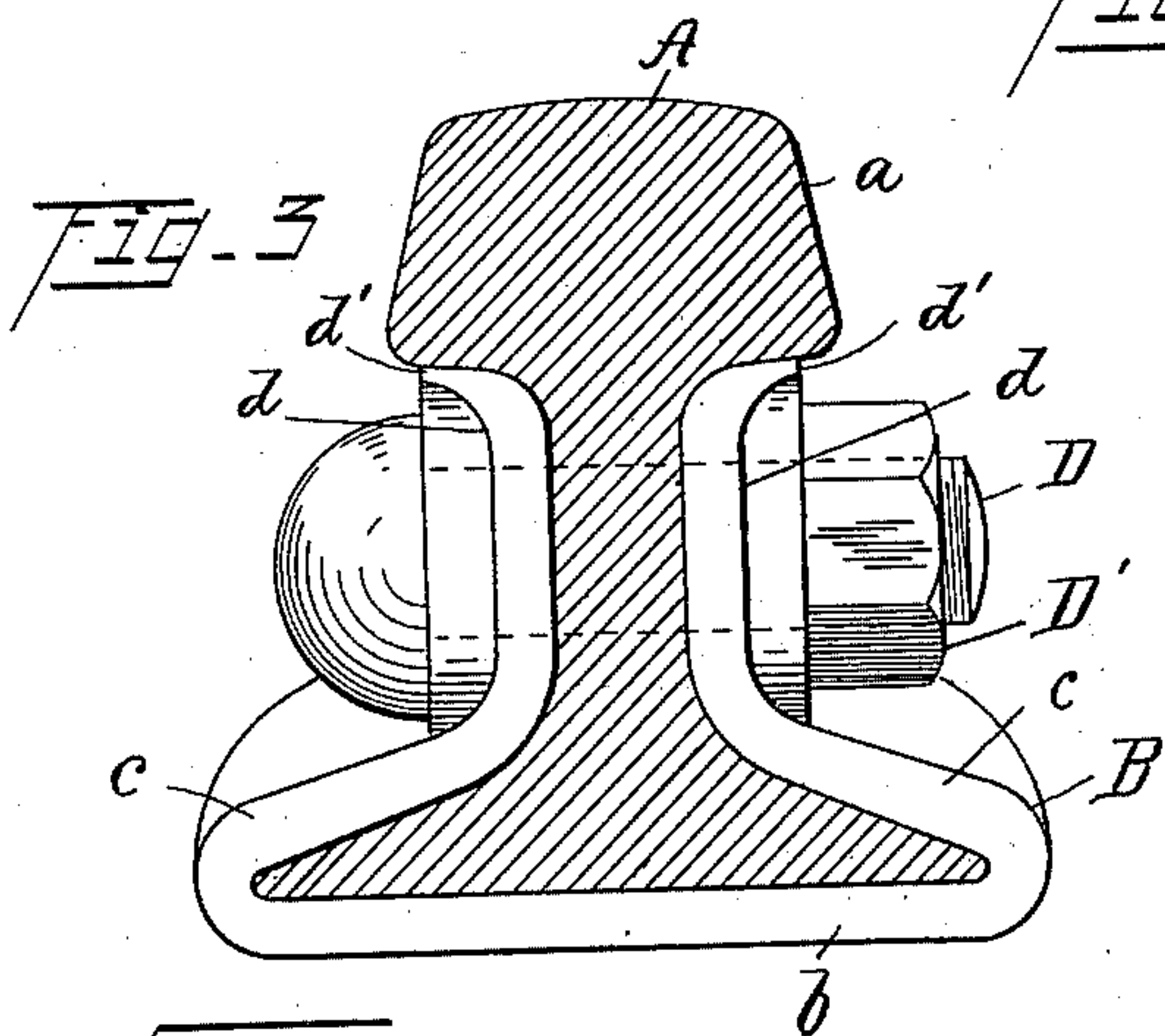
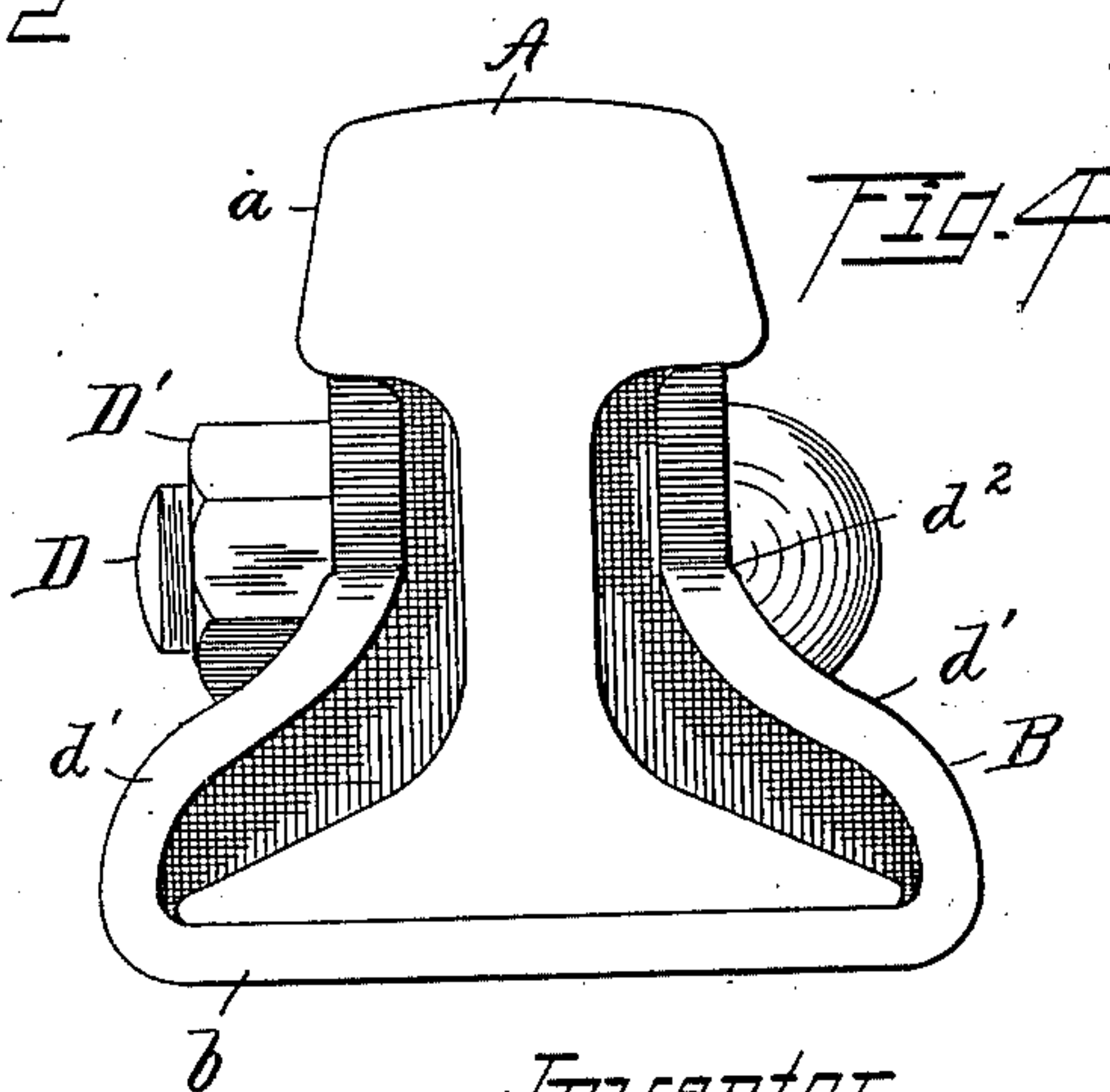


Fig. 2



Witnesses:

Geo. A. Metzger.
R. Hitchcock



Inventor.
William C. Gregg.
by Louis F. Griswold.
his Atty.

UNITED STATES PATENT OFFICE.

WILLIAM C. GREGG, OF HONOLULU, HAWAII.

RAIL CONNECTION FOR RAILWAYS.

SPECIFICATION forming part of Letters Patent No. 663,882, dated December 18, 1900.

Application filed March 22, 1900. Serial No. 9,775. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM C. GREGG, a citizen of the United States, residing at Honolulu, in the Island of Oahu, Hawaii, have invented Improvements in Rail Connections for Railways, of which the following is a specification.

My invention relates to improvements in joints or connections for rails in the construction of railway-tracks, and it relates particularly to the construction of portable railways.

The object of the invention is to provide a rail-joint that will be simple in construction, not easily damaged in transportation, and one that will hold the rails rigid and even, but that will permit of their being readily connected and disconnected, so that the sections of track may be transported from one place to another. It is especially important also that in disconnecting and removing the rails from the tracks and one rail may be removed at any point along the track, and that one rail having been removed the remaining rails may be disconnected without unbolting or disconnecting from the respective joints, all of which is hereinafter fully described.

The invention consists of the construction and combination of the parts hereinafter described, and pointed out definitely in the claim.

In the drawings forming a part of this specification, Figure 1 is a side elevation of the shoe with which the rail-joint is formed. Fig. 2 is a plan view of the shoe. Fig. 3 is a view of one end of the shoe, showing the rail in cross-section; and Fig. 4 is a view of the opposite end of the shoe.

Similar letters of reference designate similar parts throughout the drawings and specification.

I am aware that a portable rail-joint has heretofore been invented which is very similar in appearance to the one herein described, but which lacks some of the important features of my construction. These particular features which I consider novel in my improved joint enable the rails to be more easily connected and disconnected than they formerly have been and render the joints less liable to damage in transportation.

In carrying out my invention I use the ordinary T-rail used in the construction of

permanent railway-tracks. The joint is in the form of a shoe and is made of one piece, preferably malleable or wrought iron. The sides of the shoe or joint pass entirely around the flange and base of the rail in substantially parallel lines, and the upper sides of the shoe fit closely to the web of the rail, so that the shoe when fitted to the rail envelops the base and web of the rail, thus equalizing the lateral strains and holding the rail rigid against lateral pressure. The close fitting of the shoe just above described, or rather the interior contour of the shoe conforming to the exterior contour of the web and flange of the rail, does not extend the entire length of the shoe, but only about two-thirds of its length, as will be more fully explained hereinafter.

In the drawings, A represents the rail, and B the shoe, which has a base b , sides $c c$, and the upright sides $d d$. The tops of the uprights $d d$ are provided with the flanges $d' d'$. The interior contour of the shoe from the end b' to a point at or near b^2 is such that it will closely fit the web and flange of the rail, the head a of the rail resting on the flanges $d' d'$ of the shoe. From the point b^2 to the end b^3 the opening in the shoe gradually becomes larger or flaring. The base b remains in the same plane; but the sides $c c$ and the uprights $d d$ gradually bulge, and the upper edges or flanges $d' d'$ slope to the point d^2 , and the flanges $d' d'$ continue down the uprights $d d$ at the end b^3 . At one end of the shoe the uprights $d d$ are pierced with openings C C.

In operation one end of a rail is slid into the end b' of the shoe to a point indicated by dotted line a' . The web of the rail is provided with a hole, which will register with the openings C C. A bolt D is then passed through the openings C C and the hole in the web of the rail and a nut D' threaded on the bolt. The interior of the shoe fitting closely to the web, flange, and base of the rail and being bolted tightly to the rail makes the shoe rigid with the rail. Another rail is inserted in the opposite end of the shoe until it meets the bolted rail at the line a' , the second rail mentioned being bolted at its opposite end to a corresponding shoe. The second rail is easily inserted into the end b^3 of the shoe on account of the enlarged or flared

opening and is held tight in the shoe by the close fitting of the shoe from the point b^2 to the line a' .

5 The constructions as set forth in the drawings are important from the fact that by reason of the sloping sides of one end of the shoe and the flaring end, said shoe being bolted to one end of the rail, any rail may easily be slipped into the other end, and, further, the
10 exposed end of the shoe, sloping, as it does, and provided with the flanges $d' d'$, in transportation will not be bent nor battered, but will be protected.

15 From the construction shown it is clear that the rails by reason of the web and base fitting closely in the shoe, with the top of the rail resting on the flanges on top of the up-rights of the shoe and one end of each rail being bolted to the shoe, will be held rigidly
20 to the shoe and owing to the flaring end of the shoe can readily be removed.

In the ordinary use of my improved construction the railway will be assembled from one end, in which case it is only necessary to
25 slip the end of one rail into the shoe which is bolted to the preceding rail. In removing the track the reverse order is followed, the rails being removed from one end until the track is entirely removed. In the event of a
30 long track, in which it is desirable to start at some point other than the end, one of the shoes may be unbolted and moved longitudinally on its rail, thus freeing the adjacent

end of the next rail, which can then be removed, after which the rails can be slipped 35 out, as before, in each direction. The shoe which has been loosened being again bolted to its rail will then be in proper position for readily assembling without the aid of any tools or appliances whatever for connecting 40 the respective track-rails.

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

In a railway-track, the combination of the 45 rail, a shoe-joint of one piece passing entirely around the base and flange of the rail, a certain portion of said shoe fitting closely the web, flange and base of the rail and provided with bolt-holes which register with a bolt- 50 hole in the end of the rail, and flanges which bear on the under side of the head of the rail, the other part of the shoe being flaring except on its base and inclining toward the end, said inclined portion and the flared end provided 55 with a flange, and adjustable means for holding the rails rigidly in said shoe but permitting disconnection of any rail from the track after the fastening device for said shoe has been adjusted, substantially as described. 60

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

WILLIAM C. GREGG.

Witnesses:

GEORGE L. SCOFIELD,
ANCIL L. BROWN.