No. 738,592. PATENTED SEPT. 8, 1903.

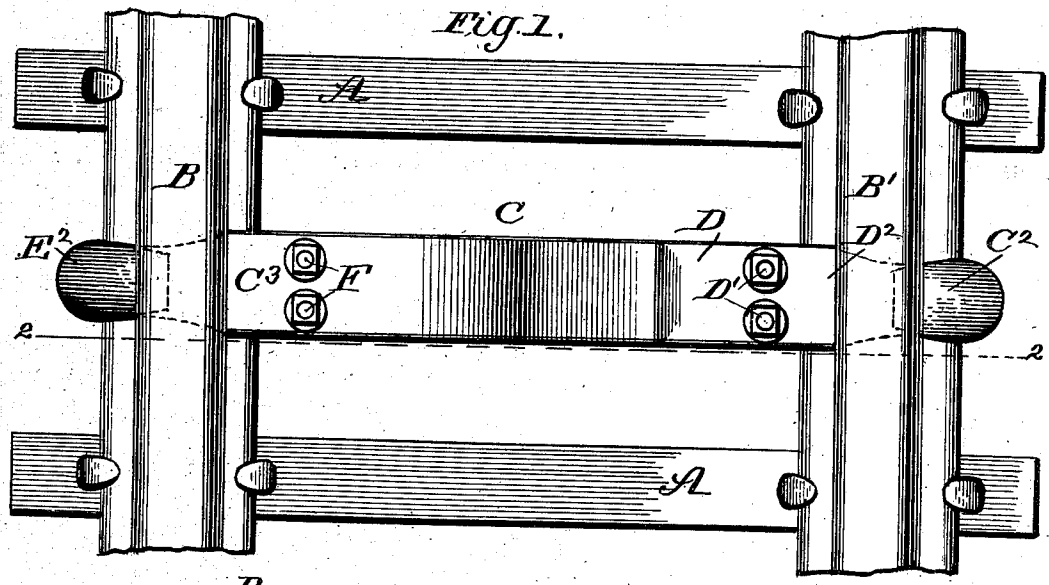
W. E. ARTHUR.

RAILWAY RAIL BRACE OR TIE BAR.

APPLICATION FILED MAY 20, 1903.

NO MODEL.

Fig. 1.



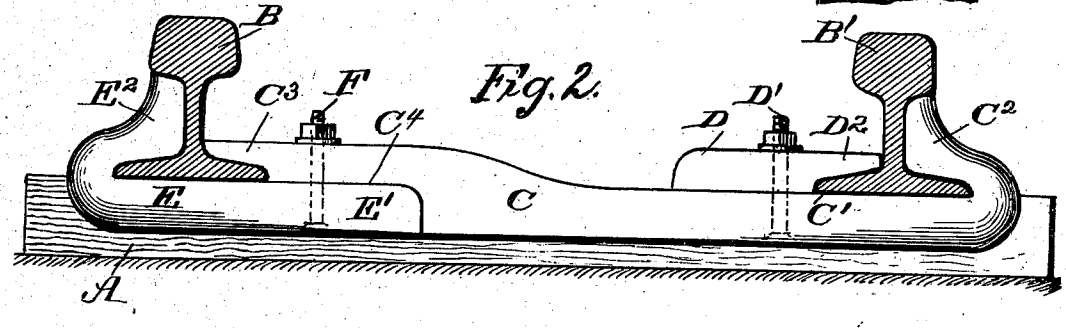


Fig. 2.

Fig. 3.

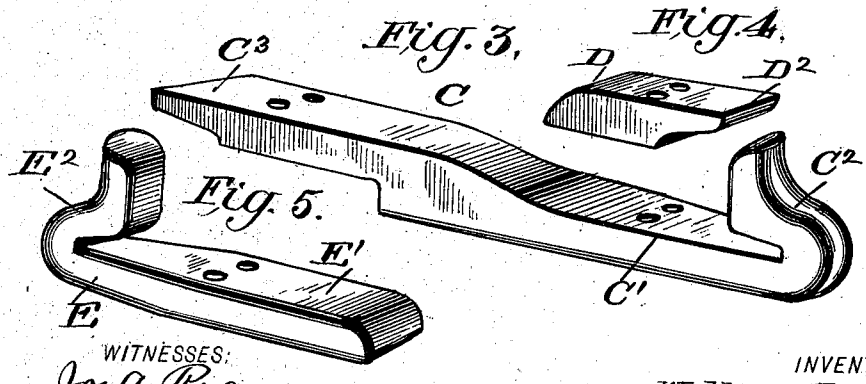


Fig. 4.

Fig. 5.

WITNESSES:

Jos. A. Ryan

Percy B. Turpin

INVENTOR

William E. Arthur

BY Munn & Co.

ATTORNEYS.

No. 738,592. Patented September 8, 1903.

UNITED STATES PATENT OFFICE.

WILLIAM ELMO ARTHUR, OF ABERDEEN, MARYLAND.

RAILWAY-RAIL BRACE OR TIE-BAR.

SPECIFICATION forming part of Letters Patent No. 738,592, dated September 8, 1903.

Application filed May 20, 1903. Serial No. 157,920. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM ELMO ARTHUR, a citizen of the United States, and a resident of Aberdeen, in the county of Harford and State of Maryland, have made certain new and useful Improvements in Railway-Rail Braces or Tie-Bars, of which the following is a specification.

My invention is an improvement in tie-bars or braces for railroad-tracks, by which to tie the opposite rails of the track securely together and brace one from the other; and the invention consists in certain novel constructions and combinations of parts, as will be hereinafter described and claimed.

In the drawings, Figure 1 is a top plan view of a section of a track embodying my invention. Fig. 2 is a detail cross-section on about line 2 2 of Fig. 1. Fig. 3 is a detail perspective view of the main section. Fig. 4 is a detail perspective view of the cap-section; and Fig. 5 is a detail perspective view of the end section of the tie-bar, all of which will be described.

The ties A and rails B and B′ may be of ordinary construction and secured in the ordinary manner.

The purpose of my invention is to provide a novel construction of tie-bar to extend between the opposite rails and to brace the same firmly in their desired relative position. In carrying out my invention I provide a main section which has at one end an upturned-hook-like portion embracing the outer edge of one rail, while the opposite end of the main section laps upon and braces the inner side of the opposite rail, so that the main section embraces the outer side of one rail and the inner side of the other rail and forms a continuous brace between such points. In connection with such main section I provide a cap-section and a so-called "end" section, both of which are secured to the main section, the cap-section being arranged to engage the inner side of the rail whose outer side is embraced by the hook on the main section, while the end section embraces the outer side of the rail whose inner side is embraced by the main section.

The main section C of the tie-bar is provided at one end with a depressed seat C′ in its upper side to receive the rail B′ and has at such end the upturned hook-like portion C^2, which embraces the outer side of the rail B′ and braces the said rail at its outer side, as best shown in Fig. 2. The inner side of the rail B′ is braced by the cap-section D, which is bolted at D′ to the depressed portion of the section C and has at D^2 the portion overlying the base of the rail B′ and cooperating with the hook C^2 in clamping the tie-bar at one end firmly in connection with the rail B′, as shown in Figs. 1 and 2.

At its end opposite the hook C^2 the main section C is provided with the portion C^3, which overlies or embraces the inner side of the rail B, such end of the section C being mortised in its under side at C^4 to receive the base portion E′ of the end section E, which section is fitted in the mortise C^4, is secured by bolts F to the section C, and is provided at its outer end with the upturned hook-like portion E^2, embracing the outer side of the rail B, as shown in Figs. 1 and 2.

By the described construction it will be seen that I provide a tie-bar in sections with its main section provided with portions embracing the outer side of one rail and the inner side of the opposite rail, together with supplemental sections, which are bolted to said main section and embrace the opposite sides of the rails from those embraced by the ends of the main section and thus provide a tie-bar which is practically integral from end to end when applied for use, which can be conveniently applied for use, and can when so applied be readily removed either in whole or in part, as may be desirable or necessary. I thus provide a tie-bar which can be made of any desired strength and can be applied to the rails either in new work or in work already constructed and can be arranged at such intervals as may be found necessary to prevent any spreading or other lateral displacement of the rails.

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

1. The combination substantially as herein described of the opposite rails, the main tie-bar section having at one end an upturned hook embracing the outer side of one rail and provided at its opposite end with a portion embracing the inner side of the other rail and

having in the under side of such end a mortise to receive the base of the end section, the end section having a base portion fitting in said mortise and secured to such end of the main section and having at its outer end an upturned portion embracing the outer side of the rail whose inner side is embraced by the end of the main section, and the cap-section secured to the main section and embracing the inner side of the rail whose outer side is embraced by the upturned hook on the main section substantially as set forth.

2. The combination with the opposite rails of a tie-bar having a main section provided at one end with a hook embracing the outer side of one rail and at its other end with a portion embracing the inner side of the opposite rail, and sections secured to the main section and embracing the opposite sides of the rails from those embraced by the main section substantially as set forth.

3. The combination with the opposite rails of a tie-bar section having at one end a portion embracing the outer side of one rail and at its other end a portion embracing the inner side of the opposite rail and means for securing said main section in connection with the rails substantially as set forth.

4. A tie-bar for railroad-tracks comprising a main section C having one end C^3 adapted to embrace the inner side of one rail and its other end provided with a hook to embrace the outer side of the opposite rail and a cap-section D and end section E substantially as set forth.

5. A tie-bar for railroad-tracks consisting of the main section having its upper side depressed at one end to form a seat for the rail and having such end upturned forming a hook to embrace the outer side of a rail, a cap-section secured to such depressed portion of the main section for embracing the inner side of said rail, the opposite end of the main section being provided in its under side with a mortise and having its extremity arranged to embrace the inner side of the opposite rail and the end section having a base secured in the mortise of the main section and provided at its outer end with an upturned hook to embrace the outer side of the rail whose inner side is embraced by the end of the main section substantially as set forth.

WM. ELMO ARTHUR.

Witnesses:
J. HOWARD OSBORN,
L. S. OSBORN.