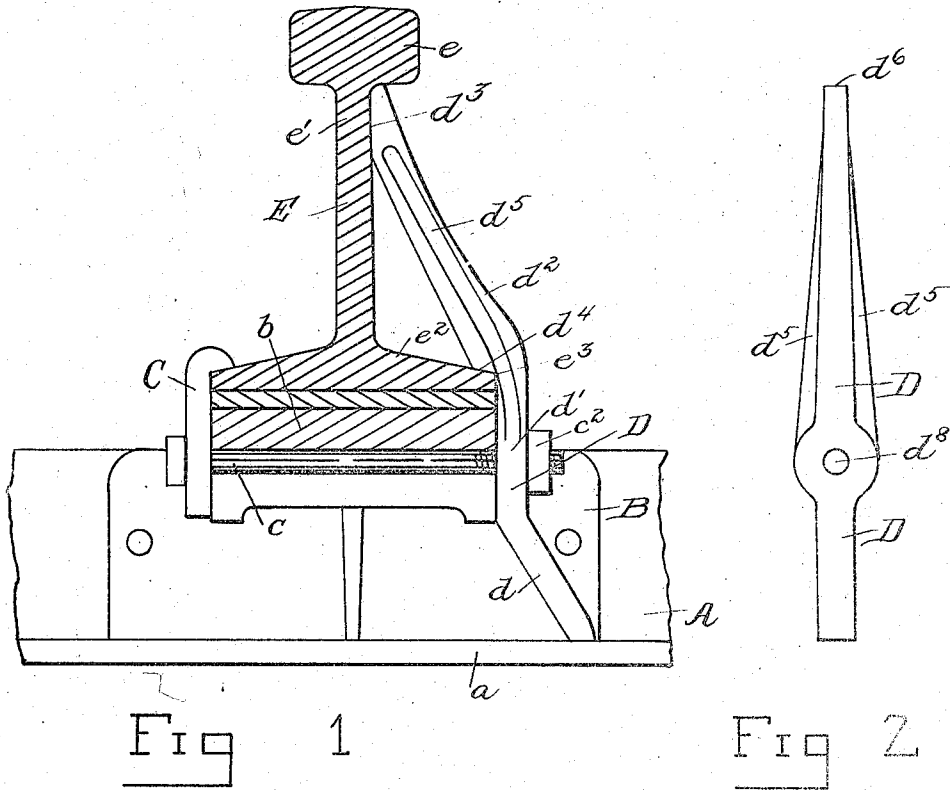


E. J. ANTHONY.
RAIL BRACE FOR RAILWAYS.
APPLICATION FILED MAR. 24, 1909.

941,693.

Patented Nov. 30, 1909.



Witnesses
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UNITED STATES PATENT OFFICE.

EDMUND J. ANTHONY, OF BROOKVIEW, NEW YORK.

RAIL-BRACE FOR RAILWAYS.

941,693.

Specification of Letters Patent.

Patented Nov. 30, 1909.

Application filed March 24, 1909. Serial No. 485,464.

To all whom it may concern:

Be it known that I, EDMUND J. ANTHONY, a citizen of the United States, residing at Brookview, Rensselaer county, New York, have invented certain new and useful Improvements in a Rail-Brace for Railways; 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 drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

The object of my invention is to provide a novel and improved form of railway-rail brace, which shall be simple in construction, of few parts, and thoroughly efficient and durable in use and operation.

The brace of my invention is specially applicable for use on curves of railway-tracks, but may be used in any other situation where its application may be found to be efficacious and desirable.

With the above object in view, the invention comprehends the novel construction, combination, and arrangement of parts, as will be hereinafter fully described in the specification, summed up in the claims, and illustrated in the drawing.

In the accompanying drawing, forming part of my application for patent, and in which like letters of reference denote corresponding parts throughout both views: Figure 1 is a side elevation of my improvements, as applied to a railway-rail, shown in transverse section, and Fig. 2 is a front elevation of my improvements.

Referring, now, in detail to the drawing: The metallic tie A, the railway-rail chair B, the rail-clamping member C, and the bolt *c* are identically the same as those disclosed in my application for patent signed and executed and filed in the Patent Office of even date herewith, for an invention entitled "Improvements in railway-rail locking mechanisms"; and, as they are therein fully described and claimed, and as they form no part of the invention constituting the subject-matter of the present application, no description or detailed illustration thereof is necessary herein.

D represents my railway-rail brace, which, as shown, is peculiarly formed, and comprises a structure of suitable metallic substance, such as iron or steel. The brace is

composed, essentially, of the following parts:

An inclined leg *d* resting at its bottom on top of the base *a* of the tie A, a perpendicular portion *d'* immediately above the leg and adapted to rest squarely against the side of the bridge-portion *b* of the chair B, and an inclined arm *d*² extending from the top of such perpendicular portion *d'* to the under portion of the top flange *e* of the railway-rail E. Toward the top of such arm *d*², the side thereof next the web *e'* of the rail E is beveled, as shown at *d*³, so that the arm will, at this point, bear squarely against the web *e'*. Also, at the junction of the vertical portion *d'* with the arm *d*², the side of the brace next to the bottom flange *e*² of the rail is mortised, so as to form a shoulder *d*⁴, to bear upon the top of the flange *e*².

A further distinguishing feature of the rail-brace is the wings *d*⁵, which project from each side of the arm *d*² and the vertical portion *d'*, extending longitudinally of said arm, and which bear against the bottom flange *e*² of the rail at the points *e*³ thereof, further to brace the rail. I have found, in practice, that these wings are very efficient, as they not only strengthen the brace D, itself, but, bearing against the bottom flange *e*² of the rail, at the points *e*³, take up some of the strain from the other parts of the brace and assist in steadying and bracing the rail. The vertical portion *d'* of the brace is provided with an aperture *d*⁸.

Passing through the rail-clamping member C and through the aperture *d*⁸ of the rail-brace is the bolt *c*, carrying an adjusting-nut *c*², by which the brace D may be clamped to the rail E and to the rail-chair B (which is, in turn, secured to the tie A), and held against movement; the whole forming a rigid and immovable structure.

It is my purpose to construct the rail-brace D in varying lengths, measured from a line drawn from the aperture *d*⁸ to the top end *d*⁶.

It will be noted that my device presents extreme simplicity, that it may be applied to the rail by even inexperienced workmen, that it is susceptible of manufacture and sale at a nominal figure, that it is durable and efficient in use and operation, and that it may be quickly removed.

Modifications in detail may be made and will, in fact, readily suggest themselves to those skilled in the art, but all such modifications and changes as come within the

terms of the appended claims constitute no departure from the invention, and fall within the scope and purview thereof.

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

1. A railway-rail brace, comprising an inclined leg adapted to be disposed on top of the base of a metallic tie, a vertical portion adapted to be disposed against the side of the bottom flange of the railway-rail, an inclined arm extending from the top of said vertical portion and terminating beneath the top flange of the railway-rail and adapted to bear against the web of the rail, wings extending longitudinally of said arm and projecting from the two sides thereof and bearing against the bottom flange of the rail, and means for holding the rail-
20 brace to the rail, against movement.

2. A railway-rail brace, comprising an inclined leg adapted to be disposed on top of the base of a metallic tie, a vertical portion adapted to be disposed against the side of the bottom flange of the railway-rail, an inclined arm extending from the top of said vertical portion and terminating beneath the top flange of the railway-rail and adapted to bear against the web of the rail, wings extending longitudinally of said arm and projecting from the two sides thereof and bearing against the bottom flange of the rail, and a bolt, carrying a nut, passing through said brace to hold the same to the rail.

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

EDMUND J. ANTHONY.

Witnesses:

WILLIAM BLASIE,

ROBERT H. LEMERMAN.