A. M. BARFIELD.

RAIL BRACE FOR RAILWAY TRACKS.

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1,066,782.

Patented July 8, 1913.

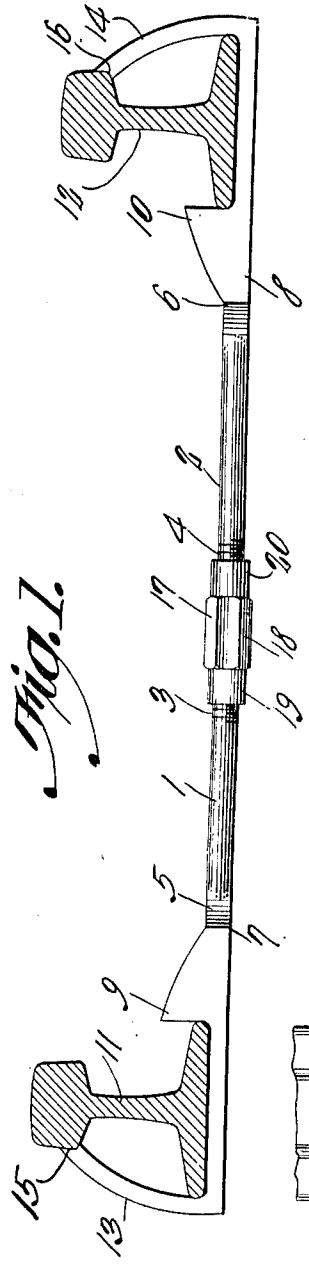


Fig. 1.

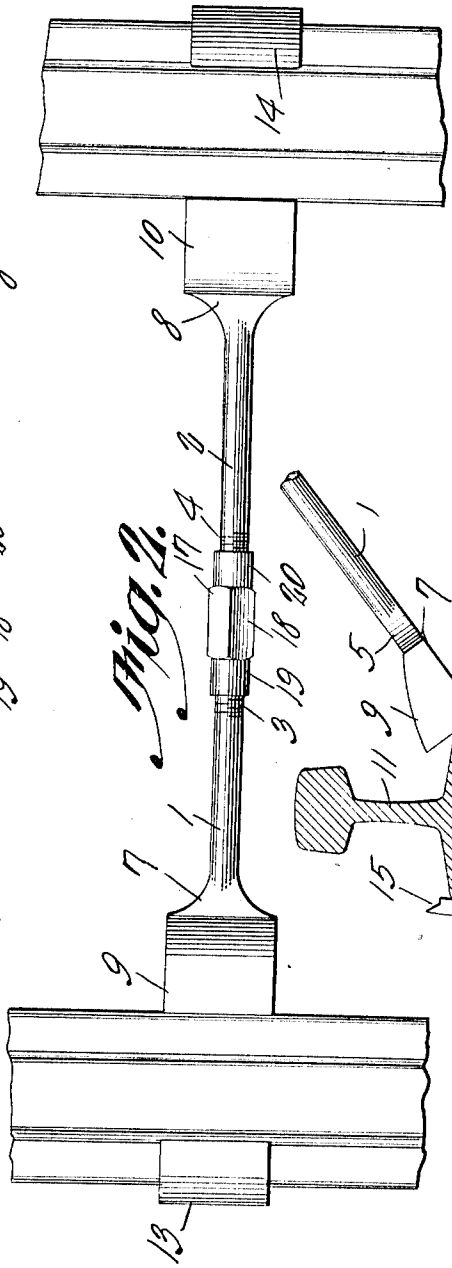


Fig. 2.

Fig. 3.

WITNESSES:

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RAIL-BRACE FOR RAILWAY-TRACKS.

1,066,782. Specification of Letters Patent. Patented July 8, 1913.

Application filed April 7, 1913. Serial No. 759,362.

To all whom it may concern:

Be it known that I, ALFRED M. BARFIELD, a citizen of the United States, and a resident of Wills Point, in the county of Van Zandt and State of Texas, have made and invented certain new and useful Improvements in Rail-Braces for Railway-Tracks, of which the following is a specification.

My invention relates to a new and useful improvement in rail braces for railroad tracks and more particularly to a brace, the length of which, may be changed to suit the existing conditions.

An object of my invention is to produce a rail brace that will act as a chair for the rail and also brace the upper portion thereof.

Another object of my invention is to produce a rail brace that is in no way connected to the cross tie. I have found that braces connected to a wooden cross tie either by lag screws or spikes are only efficient when the cross tie is practically a new one, for as soon as the weather affects or rots the tie, the braces lose their desired function.

Another object of my invention is to produce a brace that may be readily secured to the rail either before or after the same has been secured to the cross tie.

With these and other objects in view my invention consists in certain new, and novel constructions and combinations of parts as will be hereinafter more fully described and pointed out in the claims.

In the drawings similar letters of reference designate corresponding parts throughout the several views.

Figure 1 is a view in elevation of my improved brace showing a section of the rails. Fig. 2 is a top plan view. Fig. 3 is a view in elevation showing one of the parts of the improved brace being secured to the rail.

Referring now to the drawings, 1 and 2 are two similar rods or bars, provided on their inner end with right and left hand screw threads 3 and 4. The bars are then flattened as 5 and 6 and have formed integral therewith the portions 7 and 8. These portions have formed on their inner ends the enlarged portions 9 and 10 which act as abutments or stops for the rails 11 and 12. I have shown these abutments extending above the top of the base of the rail so that there will be no danger of the rail slipping, and also the higher the abutment the stronger it will naturally be.

Formed on the outer ends of the portions 7 and 8 are the integral arms 13 and 14 that extend upwardly, and in the contacting face of each arm is formed a groove, so that the arms will contact with a portion of two of the faces of the head of the rails. This prevents any creeping or slipping of the rails away from the arms which would be the case if the arms simply contacted with either the under or side face of the rail. The curve of these arms is formed by taking the lower joint of the abutments 9 and 10 as a center and the width of the base of the rail as a radius, and the arms thereby formed on the arc of the circle. The necessity of forming the arms in this manner is so that my improved brace will readily pass over the base of the rails when in position and so that the base will rest securely against the abutment and the arm against the head of the rail as already described. A tap 17 is employed, having a polygonal surface 18 for the application of a wrench, and the opposite ends of this tap are provided with right and left screw threaded apertures 19 and 20, adapted to receive the inner ends of the rods 1 and 2.

To place my improved brace in position it is simply necessary to tilt each arm upward and pass the outer portion around the base of the rail and then secure the inner ends of the rods by the tap 17 turning the same of course till the rods are rigidly secured.

From the foregoing it will be seen that my brace is not secured in any way to the cross ties but on the other hand is set down between them and may be covered over by the stone ballast, and completely out of the way. Of course these braces may be placed on a straight track but are especially desirable where the track is curved, as this is where the greatest danger of spreading rails is always to be found.

By my form of construction the brace acts as a chair for the rail preventing sagging; as a brace for the base of the rail, and also bracing the head, and prevents both rails from spreading though not in any way secured to the tie.

What I claim as new and desire to secure by Letters Patent is:

1. In a rail brace, two brace rods having their inner ends right and left hand screw threaded respectively, flattened portions formed integral with the outer ends of said brace rods, and provided with integral abut-

ments near their inner ends; curved arms formed on the outer ends of said portions, a longitudinal depression formed on the contacting faces of said arms and a tap provided with right and left hand threaded apertures to receive the inner ends of said brace rods.

2. In a rail brace, two brace rods having their inner ends right and left hand screw threaded respectively, flattened portions formed integral with the outer ends of said brace rods, and provided with integral abutments near their inner ends; curved arms formed on the outer ends of said portions on the arc of a circle the lower end of said abutment being the center of the circle, a longitudinal groove formed in the contacting faces of said arms, and adapted to engage two faces of a head of a rail; and a tap provided with screw threaded apertures to receive the inner ends of said brace rods.

Signed at Wills Point, in the county of Van Zandt and State of Texas, this 2nd day of April A. D. 1913.

A. M. BARFIELD.

Witnesses:
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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."