

J. B. WELDAY.  
ADJUSTABLE RAIL BRACE.  
APPLICATION FILED SEPT. 5, 1912.

Patented Mar. 4, 1913.

1,055,107.

FIG. 1

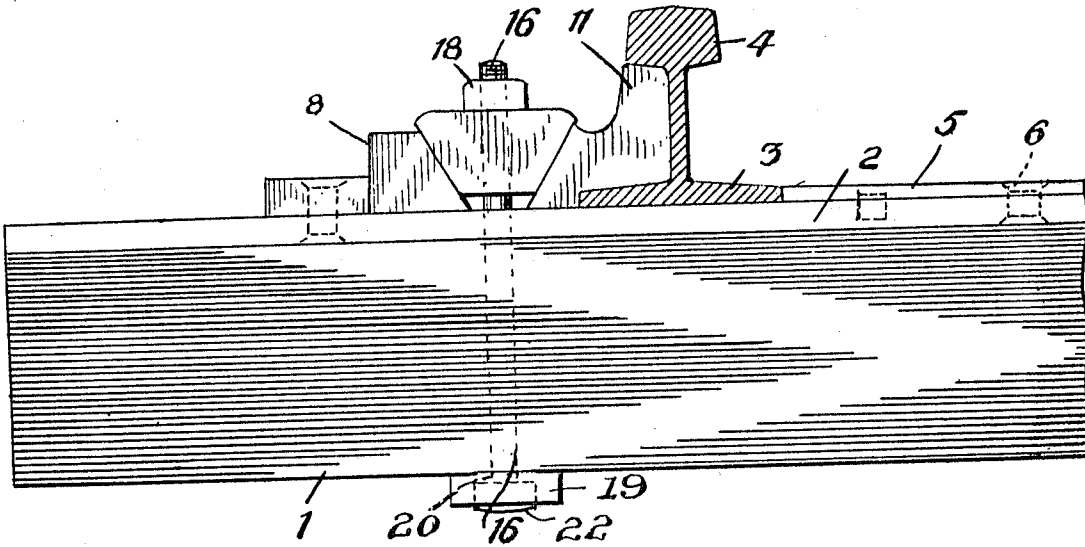


FIG. 2

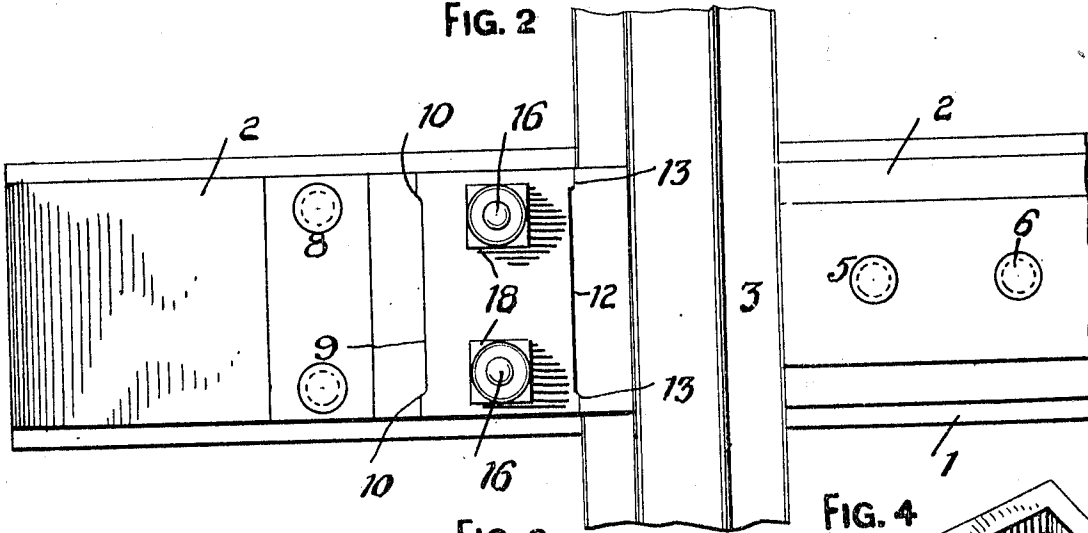


FIG. 3

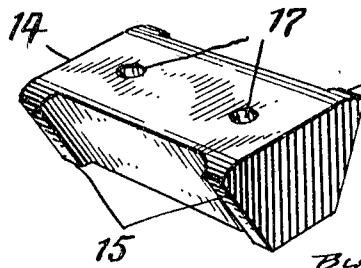
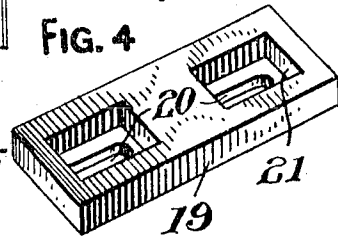


FIG. 4



WITNESSES

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# UNITED STATES PATENT OFFICE.

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## ADJUSTABLE RAIL-BRACE.

1,055,107.

Specification of Letters Patent.

Patented Mar. 4, 1913.

Application filed September 5, 1912. Serial No. 718,744.

*To all whom it may concern:*

Be it known that I, JOSEPH B. WELDAY, a citizen of the United States of America, residing at Dennison, in the county of Tuscarawas and State of Ohio, have invented certain new and useful Improvements in Adjustable Rail-Braces, of which the following is a specification, reference being had therein to the accompanying drawing.

10 This invention relates to an adjustable rail brace, and the objects of my invention are to furnish a tie with a novel rail chair upon which can be easily secured a rail, and to furnish the rail chair with a brace that  
15 can be repeatedly adjusted to compensate for wear, and for further maintaining the rails at proper gage at switch points.

Other objects of my invention are to provide a rail fastener that can be easily and  
20 quickly installed, and to provide a fastener that obviates the necessity of using spikes for retaining a rail in engagement with a tie.

Further objects of my invention are to  
25 provide a rail fastener that can be advantageously used upon curved sections of steam and electric railways, and to accomplish the above results by a mechanical construction that is durable, inexpensive to manufacture,  
30 easy to adjust and highly efficient for the purposes for which it is intended.

With the above and other objects in view the invention resides in the novel construction, combination and arrangement of parts  
35 to be hereinafter specifically described and then claimed.

Reference will now be had to the drawing, wherein:—

Figure 1 is a side elevation of the rail  
40 brace, Fig. 2 is a plan of the same, Fig. 3 is a perspective view of a detached wedge or cuneiform member, and Fig. 4 is a perspective view of a detached bolt plate.

Further describing my invention with  
45 reference to the drawing wherein like numerals denote corresponding parts throughout: 1 denotes an ordinary wooden tie and arranged upon the top of said tie is an oblong plate 2 supporting the base flanges 3 of  
50 a rail 4. The plate 2 extends the entire length of the tie 1 and serves as a bed plate for the movement of a switch tongue and as a support for switch and signaling mechanism. Riveted or otherwise connected

to the plate 2, as at 6 is a wear plate 5, 55 said wear plate constituting an inner brace for the inner base flange 3 of the rail.

8 denotes an outer support carried by the plate 2 and the inner side of this support is beveled, as at 9 and provided with shoulders 10.

11 denotes an outer rail brace engaging the outer side of the rail 4 and the outer side of said brace is beveled, as at 12 and provided with shoulders 13.

14 denotes a wedge or cuneiform member arranged between the beveled sides of the outer support 8 and the brace 11, said wedge having the ends thereof provided with ribs  
15 that engage the shoulders 10 and 13 and prevent longitudinal displacement of said wedge.

16 denotes bolts extending upwardly through the tie 1, the plate 2 and through vertical openings 17 provided therefor in  
75 the wedge 14. Nuts 18 are screwed upon the upper ends of the bolts and by adjusting said nuts the wedge can be moved to tighten the brace 11 against the outer side of the rail 4.

19 denotes a bolt plate located upon the bottom of the tie 1, said plate having longitudinal slots 20 formed therein and the bottom side of said plate provided with an oblong recess 21 to receive the rectangular  
85 heads 22 of the bolts 16. With the heads 22 engaging in the recesses 21, the bolts cannot rotate and as the plate is held by both of said bolts, it is impossible for said plate to swing upon the bottom of the tie.

In practice, the support 8 is formed integral with the plate 2 and I reserve the right to make the brace 11 of a greater width than said plate whereby the outer side of the rail  
95 can be firmly held.

What I claim is:—

In combination, a supporting plate adapted to be secured to a tie, a rail plate connected to said supporting plate and having one end thereof forming a shoulder for the  
100 base flange of a rail, an abutment connected to said supporting plate and having one side thereof beveled and formed with shoulders, a brace member adapted to engage the web and base flange of a rail and provided with  
105 a beveled and shouldered face opposing the beveled and shouldered face of said abutment, a wedge member positioned between

said beveled faces and provided with ribs  
engaging said shoulders, a bolt plate adapt-  
ed to be positioned against the lower face of  
a tie and formed with slots and oblong re-  
cesses, bolts extending through said slots and  
5 having their heads seated in said recesses,  
said bolts further extending through said  
wedge member, and means mounted upon

the bolts and engaging the wedge member  
for adjustably securing it in position.

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

JOSEPH B. WELDAY.

Witnesses:

KARL H. BUTLER,  
MAX H. SROLOVITZ.