

J. McNAMARA.  
RAIL JOINT.  
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929,468.

Patented July 27, 1909.

Fig. 1.

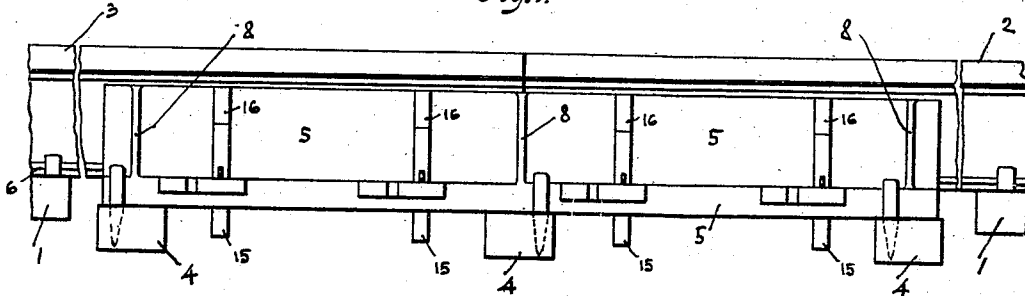


Fig. 2.

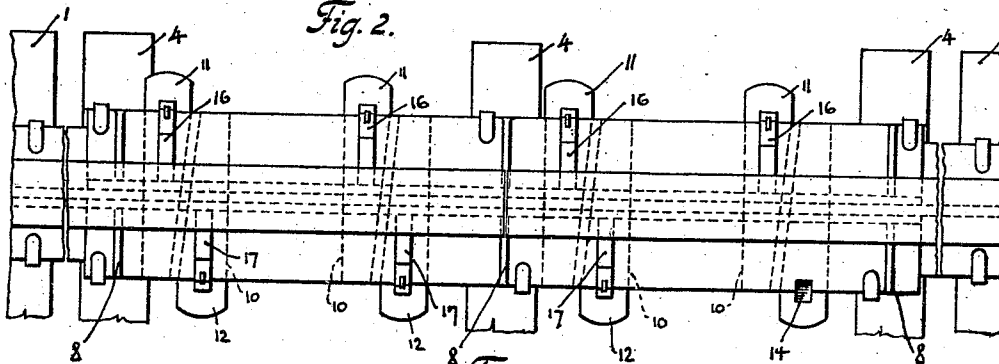


Fig. 3.

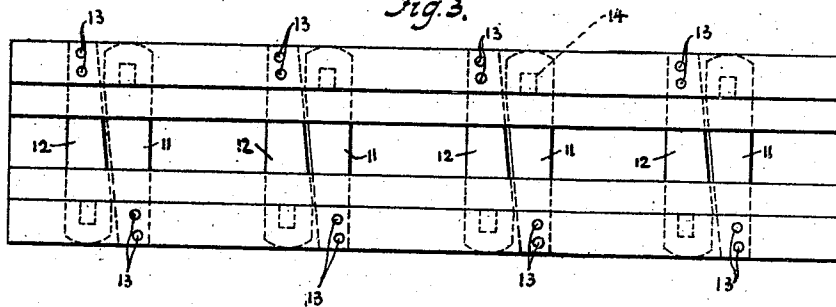


Fig. 4.

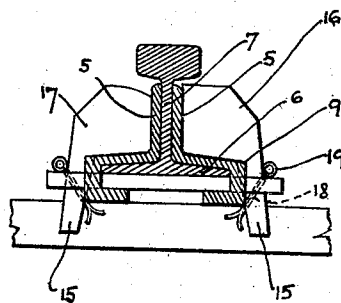


Fig. 5.



Witnesses  
Frank Trimmer

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# UNITED STATES PATENT OFFICE.

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## RAIL-JOINT.

No. 929,468.

Specification of Letters Patent.

Patented July 27, 1909.

Application filed April 7, 1909. Serial No. 488,363.

*To all whom it may concern:*

Be it known that I, JOHN McNAMARA, a citizen of the United States of America, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Rail-Joints, of which the following is a specification, reference being had therein to the accompanying drawing.

10 This invention relates to rail joints, and the invention aims to obviate the necessity of using bolts and nuts for connecting the confronting ends of two rails.

15 The invention further aims to provide novel means for connecting the confronting ends of two rails and prevent said rails from becoming laterally or vertically displaced.

20 The invention will be hereinafter considered in detail and then specifically pointed out in the appended claims, and reference will now be had to the drawing forming a part of this application wherein there is illustrated a preferred embodiment of the invention, but it is to be understood that the structural details thereof can be varied or changed without departing from the spirit of my invention.

25 In the drawings: Figure 1 is a side elevation of the rail joint constructed in accordance with my invention, Fig. 2 is a plan of the same, Fig. 3 is a bottom plan of the splice bars separated to receive the ends of a rail, Fig. 4 is a cross sectional view of the rail joint, and Fig. 5 is an enlarged elevation of a cotter pin used in connection with the joint.

In the drawings, 1 denotes ties supporting the confronting ends of rails 2 and 3.

40 4 designates additional ties located beneath the confronting ends of the rails, said ties supporting splice bars 5 adapted to brace the base flanges 6 and the web portions 7 of said rails. The sides of the splice bars 5 are provided with stiffening ribs 8 and the lower depending vertical portions 9 of said splice bars are provided with oppositely disposed openings 10. Arranged in the openings 10 beneath the base flanges 6 of the rails 1 and 2 are sets of wedges, each set comprising wedges 11 and 12 having the smaller

end thereof fixed, as at 13, to the splice bars 5. The openings 10 are of greater width than the width of the combined wedges so that when the splice bars are moved away from each other for a purpose to be herein- after referred to, the width of the openings tend to permit of such operation. The large end of said wedges are provided with openings 14 to receive the shanks 15 of braces 16 and 17, the brace 17 being located upon the inner sides of the rails and of a less height than the brace 16 to provide clearance for the flanges of the wheels of rolling stock.

55 The braces 16 and 17 on account of the arrangement of the wedges 11 and 12 are staggered with relation to each other, and all of said braces extend over the splice bars and firmly hold the same against the rails 2 and 3. To lock the shanks 15 within the wedges 11 and 12 cotter pins 18 are used, these pins extending at an angle through the shanks 15, whereby the heads 19 of said pins will engage the braces 16 and 17, while the split ends of said pins will engage under the splice bars 5.

75 With the cotter pins 18, and braces 16 and 17 removed, it is possible to open the splice bars 5, as shown in Fig. 3, whereby the confronting ends of the rails 2 and 3 can be easily placed in position to be clamped by said splice bars.

Having now described my invention what I claim as new, is:—

1. The combination with rails, of splice bars bracing said rails, said splice bars having depending vertical portions provided with oppositely disposed openings, wedges arranged in said openings and each wedge having one edge thereof fixed to one of said splice bars, braces engaging said splice bars, shanks carried by said braces and extending through said wedges, and means for locking the shanks of said braces in engagement with said wedges.

2. In a rail joint, the combination with the confronting ends of two rails, of splice bars bracing the base flanges and webs of said rails, said splice bars having depending vertical portions provided with oppositely disposed openings, wedges arranged in said

openings beneath the base flanges of said rails and having the smaller ends thereof fixed to said splice bars, while the large ends of said wedges are provided with openings, braces  
5 adapted to engage said splice bars, said braces having shanks adapted to extend through the openings of said wedges, and cotter pins disposed at an angle in the shanks

of said braces for holding said braces in engagement with said splice bars.

13

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

JOHN McNAMARA.

Witnesses:

A. H. RABSAG,

JAS. V. McMASTER.