

(No Model.)

T. B. MOORE.  
RAILROAD TIE AND FASTENING.

No. 375,763.

Patented Jan. 3, 1888.

Fig. 1.

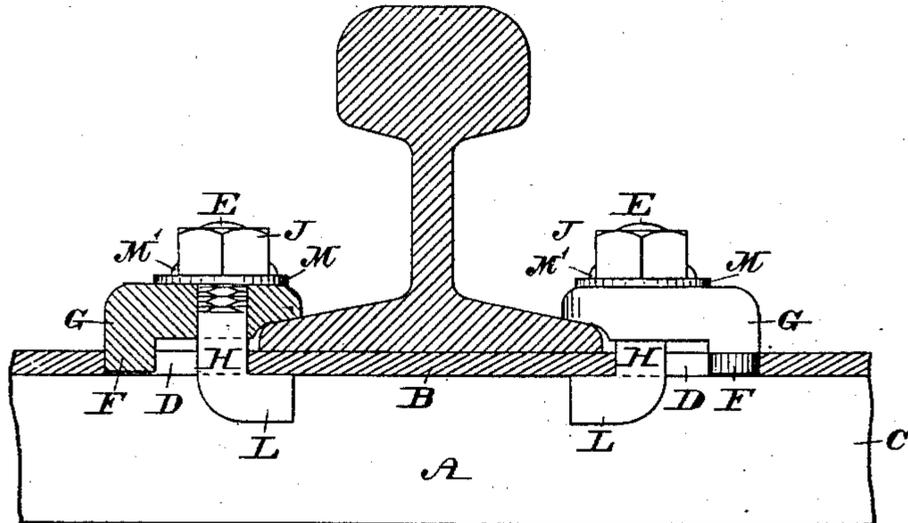


Fig. 2.

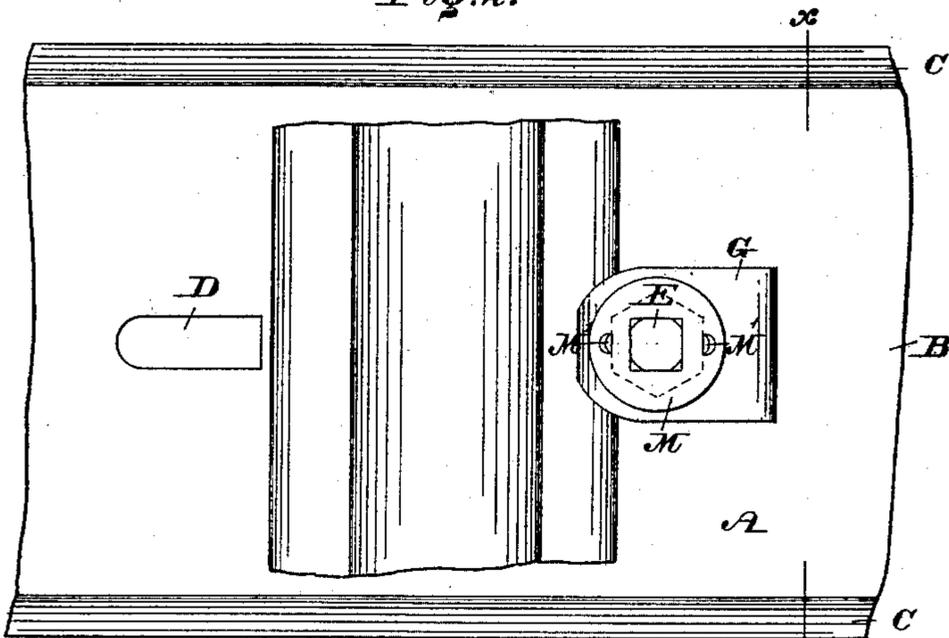


Fig. 3.

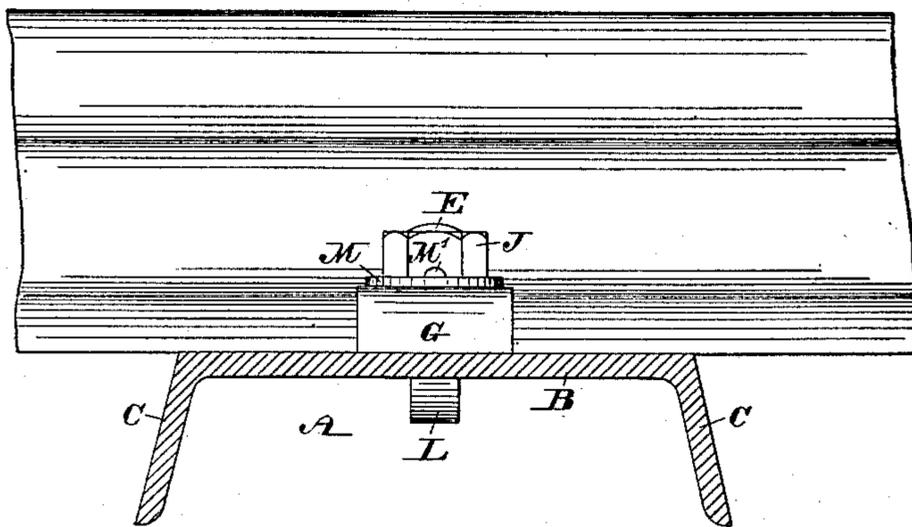
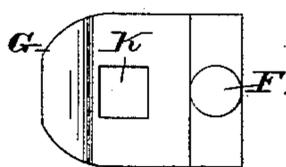


Fig. 4.



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## RAILROAD TIE AND FASTENING.

SPECIFICATION forming part of Letters Patent No. 375,763, dated January 3, 1888.

Application filed February 3, 1887. Ser'al No. 226,409. (No model.)

*To all whom it may concern:*

Be it known that I, THOMAS B. MOORE, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Railroad Ties and Fastenings, which improvement is fully set forth in the following specification and accompanying drawings, in which—

10 Figure 1 represents a partial side elevation and partial vertical section of a railroad tie and fastening embodying my invention. Fig. 2 represents a top view of a portion thereof. Fig. 3 represents a longitudinal section in line  
15 *xx*, Fig. 2. Fig. 4 represents a bottom view of one of the cheek-pieces detached.

Similar letters of reference indicate corresponding parts in the several figures.

20 My invention consists of novel improvements in railroad ties and fastenings, as will be hereinafter fully set forth.

Referring to the drawings, A represents a railroad tie which is formed of metal, of a top portion or bed, B, and depending side flanges, C.  
25 In the bed B are longitudinally-extending slots D D, of oblong form, to receive the bolts E and lugs F of the cheek-pieces G. The bolts E have squared shanks H, the upper ends of which are screw-threaded, whereby the nuts J  
30 may be fitted to said shanks, the cheek-pieces having angular openings K to receive said bolts and prevent rotation of the same. The lower end of each of the bolts E is bent so as to form the foot L, which is adapted to be  
35 passed through the slots D and caught under the bed B, as most plainly shown in Fig. 1.

40 The cheek-pieces G are formed of plates of metal, having depending from the outer ends of the under side of the same the lugs F, and the under side of their inner ends are rounded, beveled, or otherwise cut away, so as to bear properly against the upper face of the bed of the rail.

45 M represents washers, which are fitted on the bolts E between the cheek-pieces G and nuts J, and having lips M' punched from the upper face thereof, so as to embrace the sides of the nut and lock the same, preventing rotation of the latter.

50 The operation is as follows: The rail is located on the tie and the bolts E are passed through the cheek-pieces from below, the nuts J being slightly screwed on said bolts.

The feet L of the bolts are now inserted into the slots D and the cheek-pieces pushed toward  
55 the base of the rail, so that the lugs F also enter said slots, the feet of the bolts now coming under the bed B. The nuts J are tightened, whereby the feet of the bolts are drawn firmly  
60 upward against the bed B, and the cheek-pieces clamped against the base of the rail and said bed B, whereby the rail is firmly held in position. As the cheek-pieces engage with the  
65 bed B, owing to the lugs F, and the bolts pass through said cheek-pieces and bed and are prevented from rotating, owing to the square  
70 shafts of said bolts and the angular openings K of the cheek-pieces, it is evident that the cheek-pieces are prevented from shifting, and so reliably retain their places, securely clamp-  
75 ing the rail to the tie.

I am aware that fastening devices for railroad-rails have been constructed of ties having openings in which is inserted a limb of a  
75 cheek-piece, which embraces the ends of the rails, the said cheek-piece being secured to the tie by a bolt; but the peculiar construction and combination of parts herein set forth differs  
80 from those in use in having the shank of the fastening-bolt square and the opening in the cheek-piece to correspond, so that the bolt is not liable to turn therein, and thereby remove  
85 the foot of the bolt, and in having the foot formed by bending the bolt so that it is adapted to engage with the tie.

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

1. The metallic tie A, having bed B, with slots D and flanges C, in combination with the  
90 cheek-piece G, with lugs F and angular openings K, and screw-threaded bolts E, having square shanks and feet L, and the nuts J, all substantially as described.

2. The tie A, having slots D and flanges C,  
95 in combination with cheek-pieces G, having lugs F and openings K, the screw-threaded bolts E, having squared shanks and bent lower ends forming feet L, the nuts J, and the washer  
100 M, with lips M', all substantially as and for the purpose set forth.

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