

T. F. MAY.  
RAIL TIE.  
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992,789.

Patented May 23, 1911.

Fig. 1.

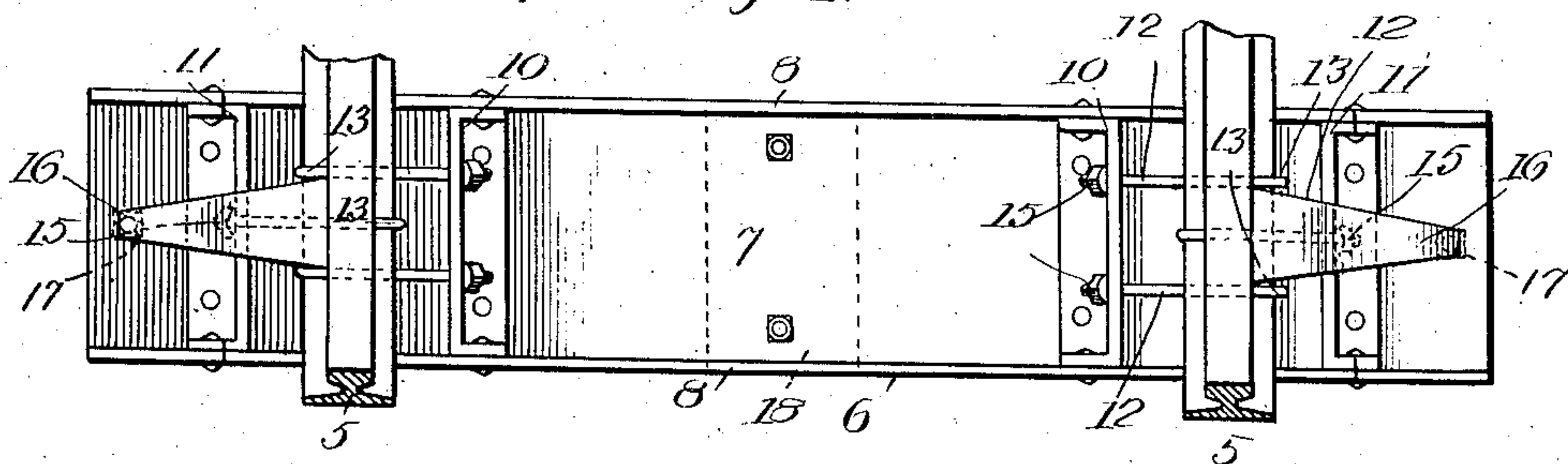


Fig. 2.

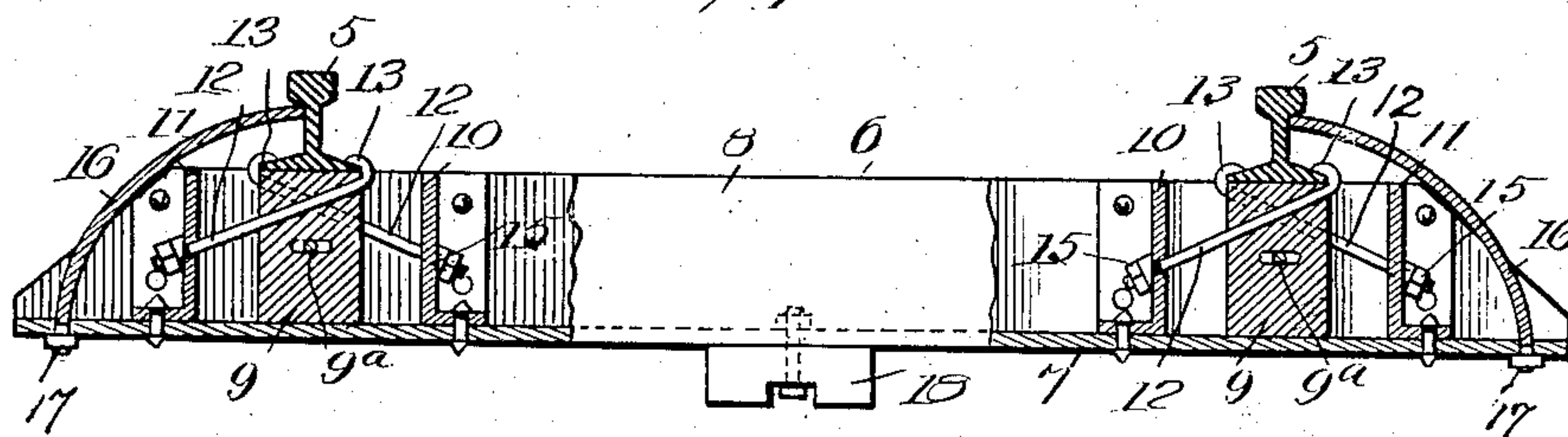


Fig. 3.

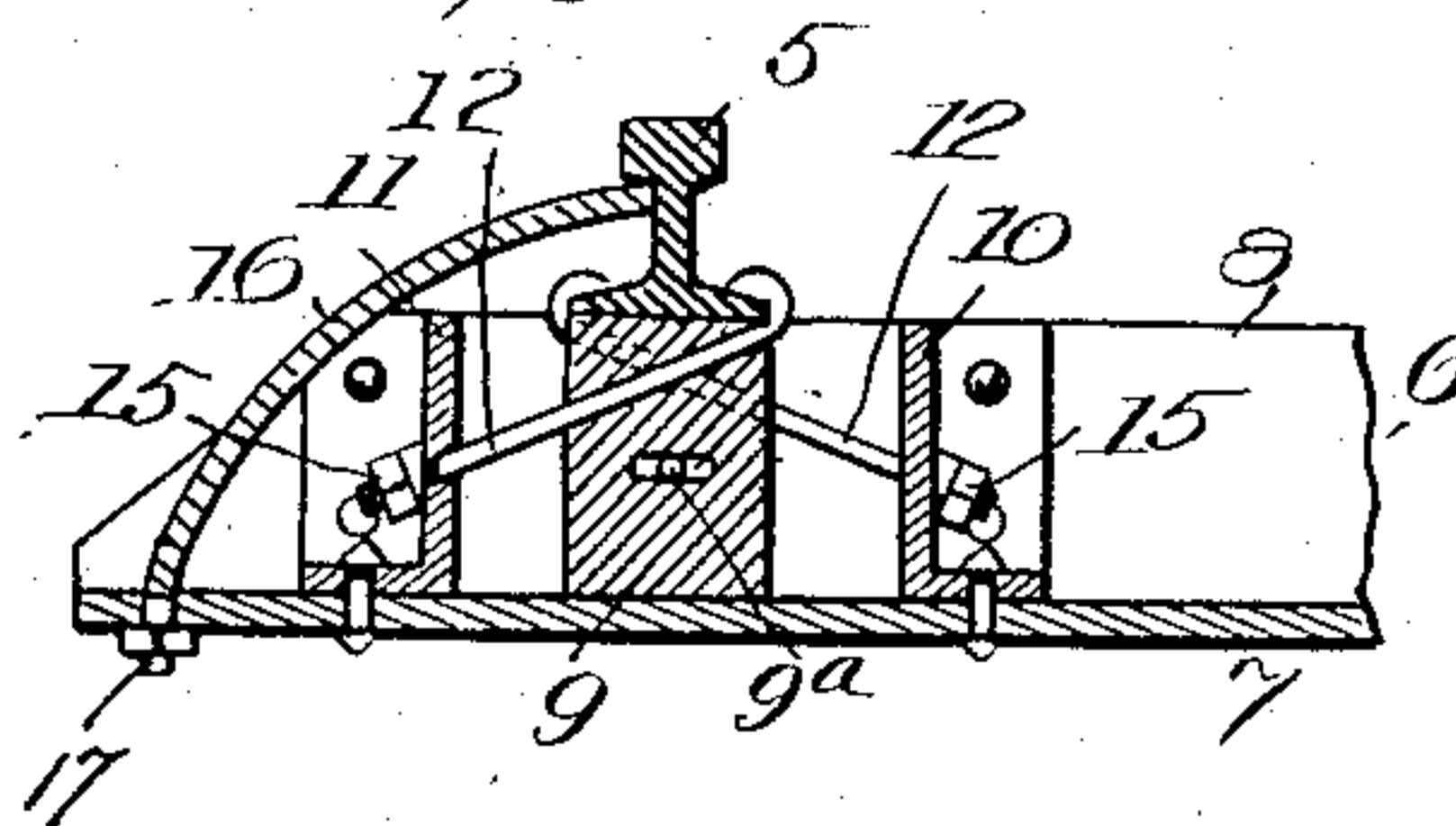
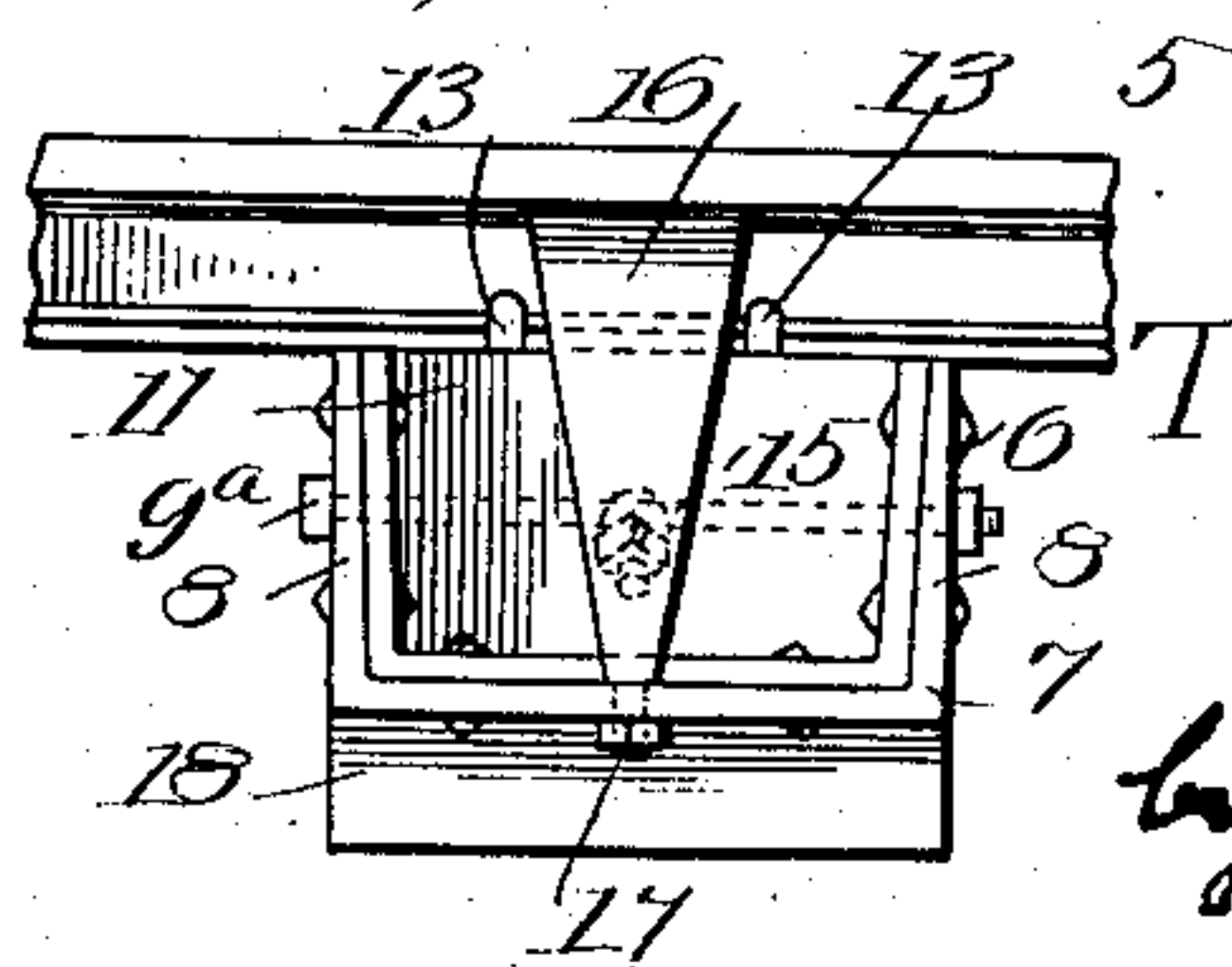


Fig. 4.



Witnesses  
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# UNITED STATES PATENT OFFICE.

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## RAIL-TIE.

992,789.

Specification of Letters Patent.

Patented May 23, 1911.

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*To all whom it may concern:*

Be it known that I, THOMAS F. MAY, a subject of Great Britain, residing at Brandon, in Manitoba and Dominion of Canada, have invented certain new and useful Improvements in Rail-Ties, of which the following is a specification.

My invention relates to rail-ties and has for its object a construction embodying simplicity and durability, together with simple and efficient means for fastening the rails to the tie.

To this end, the invention consists in certain novel features of construction hereafter described and claimed, reference being had to the accompanying drawings, in which,

Figure 1 is a plan view. Fig. 2 is a side elevation partly in section. Fig. 3 is a sectional view of one end of the tie, and, Fig. 4 is an end view thereof.

Referring specifically to the drawings, the rails are indicated at 5 and the tie at 6. The tie 6 comprises a channel beam having a base portion 7 which rests on the road-bed, and vertical side flanges 8. The rails 5 are supported on blocks 9 which extend transversely between the flanges 8 near the ends of the tie, which blocks may be integral with the tie or formed separate and secured by bolts 9<sup>a</sup> passing through the flanges and through slots in the blocks. The blocks extend upwardly flush with the top of the flanges. At the sides of each of the blocks 9 and spaced therefrom, are partitions or walls 10 and 11, respectively, which also extend transversely between the flanges 8, and which may also be integral with the tie or formed separate therefrom and riveted or otherwise fastened to the tie. The partitions extend upwardly flush with the flanges of the tie.

As heretofore stated, the rails 5 are supported on the blocks 9, being fastened thereto by hook-bolts 12, the hooks 13 of which extend over the base of the rail as shown, and the shanks of which extend downwardly and diagonally through blocks 9 under the rails, and through the respective partitions 10 and 11. The ends of the shanks are threaded to receive nuts 15.

As shown, the partitions 10 are on the inside of the rails, and the partitions 11 are on the outside thereof. Therefore the hook-bolts which engage the outer side of the rails are fastened to the partitions 10, while the bolts that engage the inner side of the rails are fastened to the partitions 11. The bolts are used on each side of the rail, the arrangement being preferably as shown, one bolt engaging the inner side of the rail, while two of said bolts engage the outer side of the rail, the single bolt being in the middle.

In order to brace the rails and prevent spreading of the same, I provide a brace 16, the same having a threaded stem at one of its ends passing through an opening in the end of the tie, the other end of the brace engaging one side of the rail. The threaded stem is secured by a nut 17 screwing on that end thereof which projects below the bottom of the tie. To prevent the tie from slipping in the direction of its length, there is secured to its bottom, intermediate its ends, a transverse channel beam 18 which will be embedded in the road-bed when the tie is in position thereon. This construction has the advantage of a solid and secure seat for the rails, formed by the blocks 9, and an effective binding for the rails to prevent them from spreading, formed by the slanting bolts, and besides this, it is simple and cheap and enables a practically indestructible track to be rapidly laid.

I claim:

1. A rail-tie comprising a channel beam, a block therein supporting the rail, partitions in the beam on each side of the block, hook-bolts engaging the base of the rail on each side and fastened to the partitions, and a rail brace secured to the end of the channel beam, and extending upwardly therefrom into engagement with one side of the rail.

2. A rail-tie comprising a channel beam, a block therein supporting the rail, partitions in the beam on each side of the block, hook-bolts engaging the base of the rail on each side and fastened to the partitions, and a transverse beam mounted on the bottom of the tie, intermediate its ends.

3. A rail-tie comprising a channel beam,  
a block therein supporting the rail, parti-  
tions in the beam on each side of the block,  
hook-bolts engaging the base of the rail on  
5 each side and fastened to the partitions, and  
a rail brace secured to the channel beam and  
engaging one side of the rail.

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

THOMAS FLETCHER MAY.

Witnesses:

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