

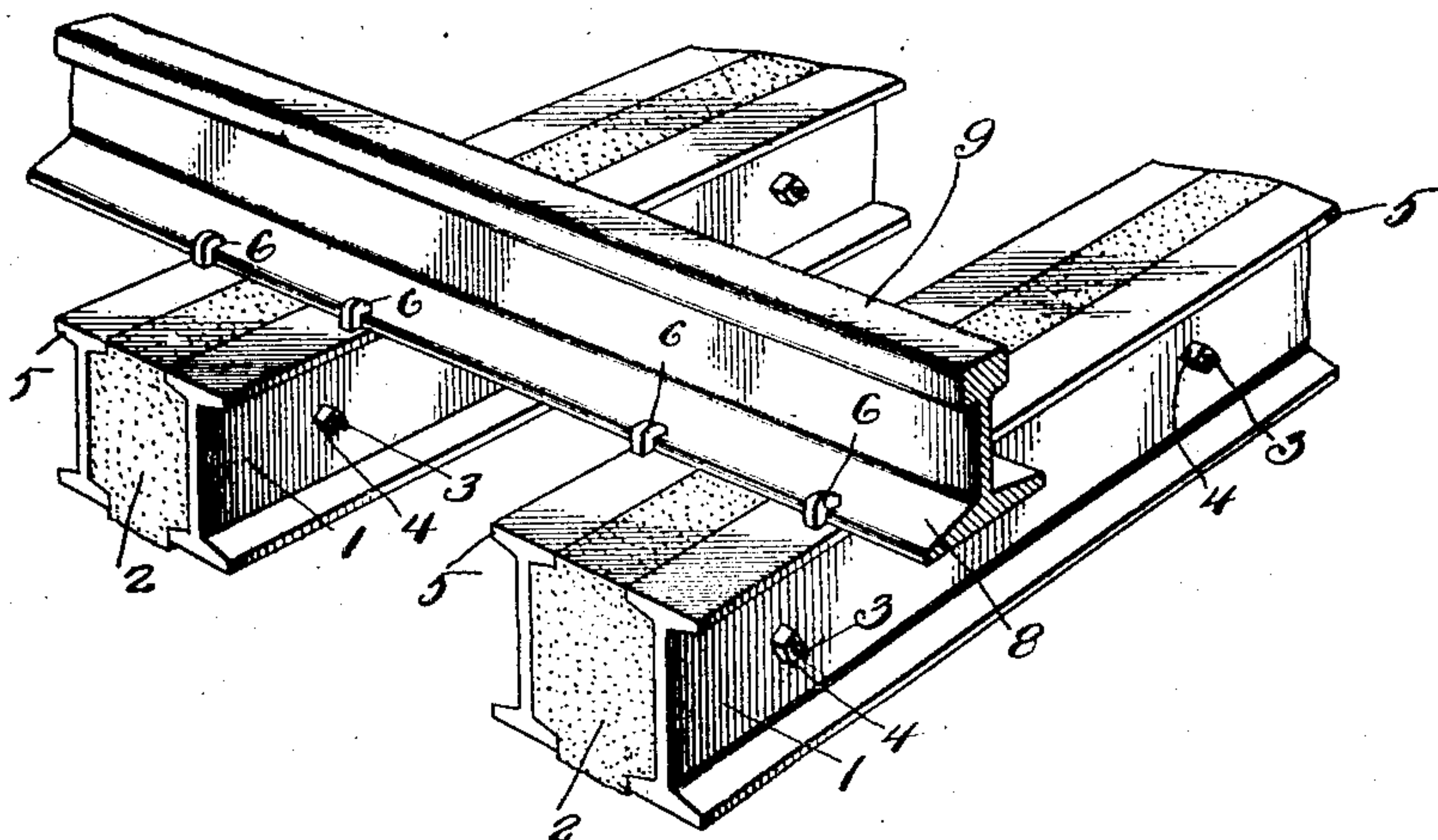
No. 862,912.

PATENTED AUG. 13, 1907.

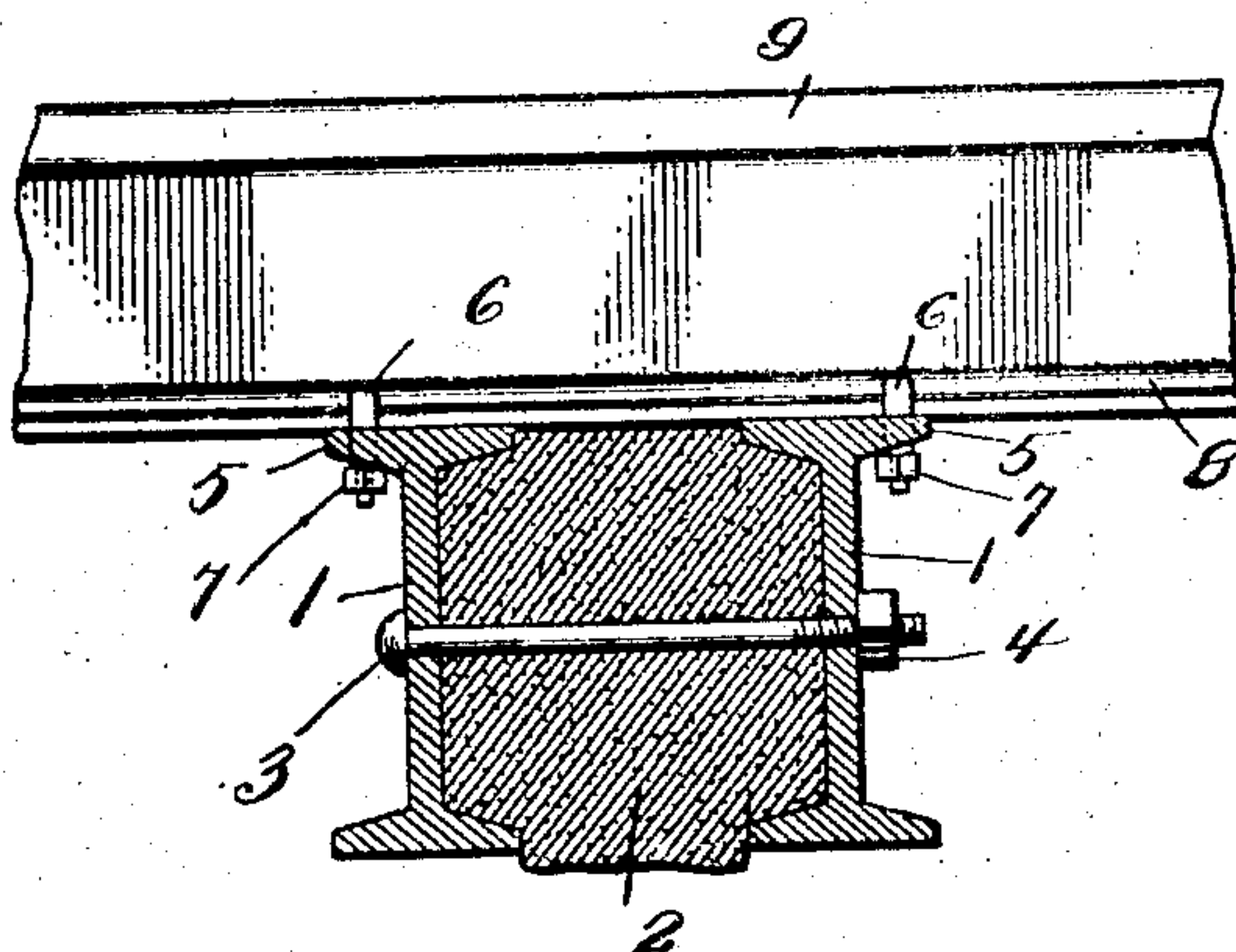
J. L. HICKLE.  
METALLIC TIE AND RAIL FASTENER.

APPLICATION FILED APR. 25, 1907.

*Fig. 1*



*Fig. 2*



WITNESSES:

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# UNITED STATES PATENT OFFICE.

JOSEPH L. HICKLE, OF FAIRCHANCE, PENNSYLVANIA.

## METALLIC TIE AND RAIL-FASTENER.

No. 862,912.

Specification of Letters Patent.

Patented Aug. 13, 1907.

Application filed April 25, 1907. Serial No. 370,291.

*To all whom it may concern:*

Be it known that I, JOSEPH L. HICKLE, a citizen of the United States of America, residing at Fairchance, in the county of Fayette and State of Pennsylvania, have  
5 invented certain new and useful Improvements in Metallic Ties and Rail-Fasteners, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to improvements in metallic  
10 ties and rail fasteners, and the invention has for its object to provide a strong and durable metallic tie for firmly supporting rails, the ties being of a substantial construction, which will form a firm foundation for a track, and prevent displacement of rails and irregu-  
15 larities in a track construction.

Another object of this invention is to provide a simple and inexpensive tie wherein the use of wood is entirely dispensed with as a tie supporting medium, and steel and concrete substituted therefor, which will with-  
20 stand the forces of nature, and the rough usage to which ties are subjected.

With the above and other objects in view, which will more readily appear as the invention is better understood, the same consists in the novel construc-  
25 tion, combination and arrangement of parts to be hereinafter more fully described and then specifically pointed out in the appended claims.

Referring to the drawing forming part of this spec-  
30 ification, like numerals of reference designate corresponding parts throughout the several views, in which:

Figure 1 is a fragmentary perspective view of two ties constructed in accordance with my invention, the ties being illustrated as supporting a rail thereon, and  
35 Fig. 2 is a cross sectional view of one of my improved ties.

To put my invention into practice, I construct a tie of two beams 1 of the I-beam construction, said beams being arranged parallel with one another and suitably spaced apart, whereby concrete 2 can be placed be-

tween the beams, to form a tie substantially rectangu- 40 lar in cross section. The beams 1 are connected together by tie rods or bolts 3 and nuts 4, the tie rods or bolts being preferably placed throughout the length of the beams, whereby all parts of the beams will be held in engagement with the concrete body of the tie. 45

The outer flanges 5 of the beams are pierced to receive hook-shaped spikes or bolts 6 having threaded ends for the reception of nuts 7 beneath the outer flanges 5 of the beams, the hook-shaped spikes or bolts gripping the base flanges 8 of rails 9 mounted upon 50 the tie.

By the novel arrangement of the rail fasteners, the stripping of nuts 7 is entirely obviated, and positive and reliable means is employed for firmly securing  
55 rails to my improved ties.

It will be apparent from the novel construction of the ties that the same can be thoroughly tamped in a road-bed to form a substantial and non-shifting support for rails.

Such variations in the size, proportion and minor 60 details of my invention as are permissible by the appended claims, may be resorted to without departing from the spirit and scope of the invention.

What I claim and desire to secure by Letters Patent, is:— 65

In a metallic tie and rail fastener, the combination with rails, of ties comprising two parallel beams of the I-beam construction adapted to support said rails, concrete arranged between said beams, tie rods connecting said beams, hook-shaped bolts mounted in the outer flanges of said 70 beams and gripping the base flanges of said rails, and means for retaining said bolts in engagement with said beams.

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

JOSEPH L. HICKLE.

Witnesses:

MICHAEL BOWLEN,  
MINOR G. DUNAWAY.