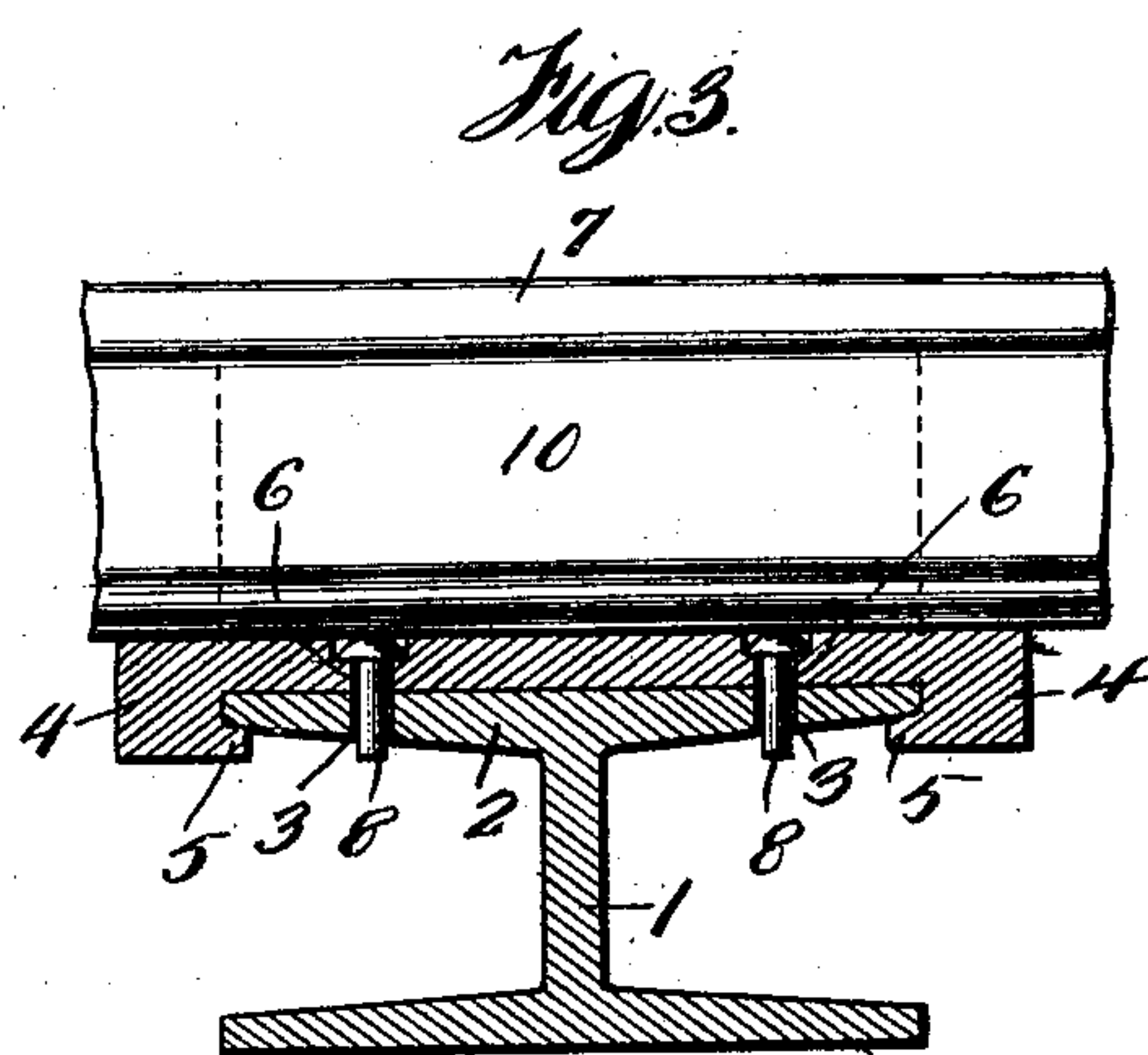
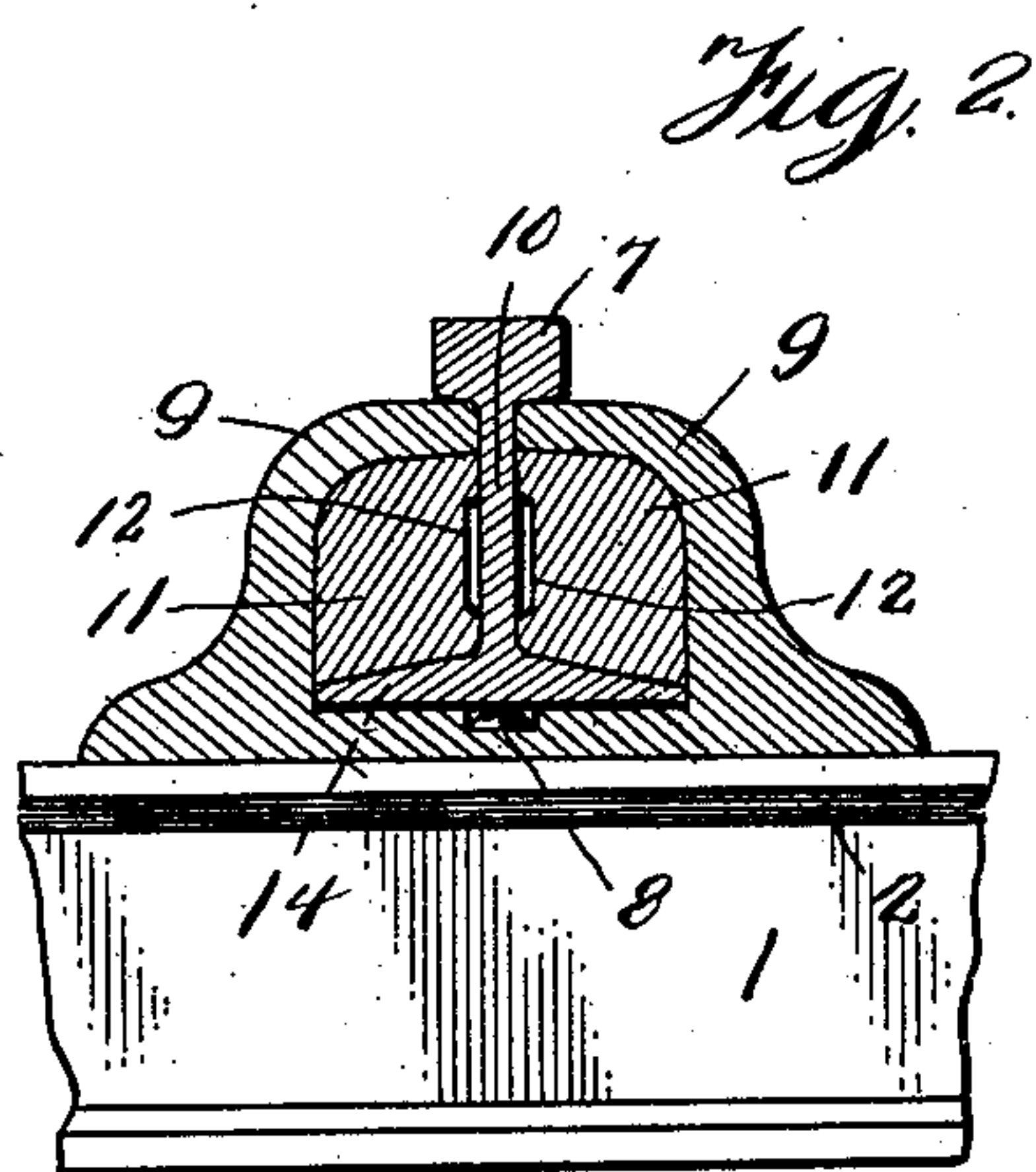
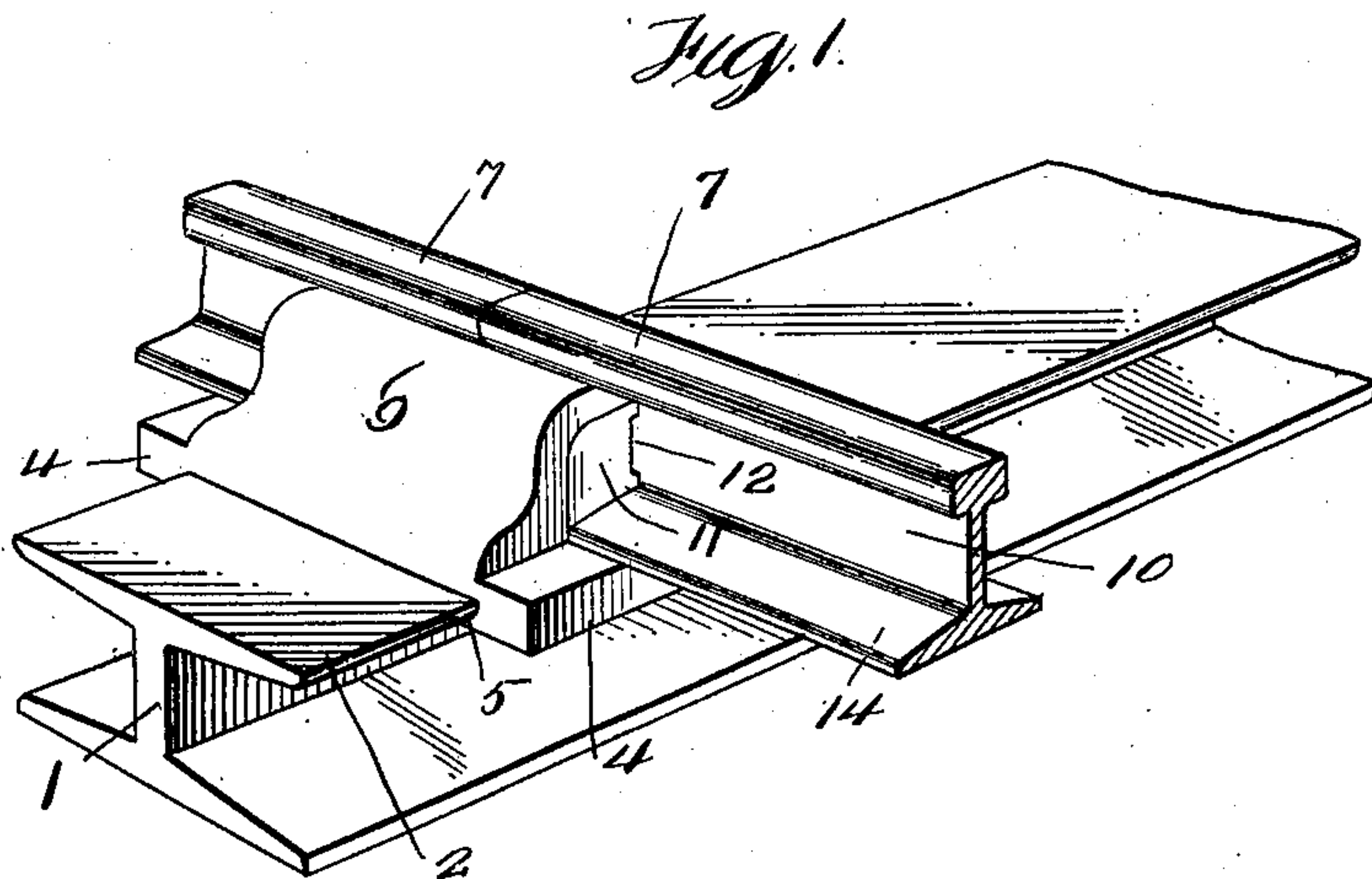


No. 862,086.

PATENTED JULY 30, 1907.

W. A. MAITLAND.
METALLIC TIE AND RAIL FASTENER.
APPLICATION FILED APR. 30, 1907.



WITNESSES:

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WILLIAM A. MAITLAND, OF SHARON, PENNSYLVANIA.

METALLIC TIE AND RAIL-FASTENER.

No. 862,086.

Specification of Letters Patent.

Patented July 30, 1907.

Application filed April 30, 1907. Serial No. 371,140.

To all whom it may concern:

Be it known that I, WILLIAM A. MAITLAND, a citizen of the United States of America, residing at Sharon, in the county of Mercer 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 drawings.

This invention relates to metallic ties and rail fasteners, and the invention aims to provide a novel tie of the I-beam construction upon which the confronting ends of two rails can be fastened without the use of nuts and bolts.

My tie is particularly designed for a fastener embodying a chair in which two splice bars are placed for embracing, in conjunction with the chair, the sides of rails. I use the tie of the I-beam construction whereby the chair can be constructed to slide upon the top flanges thereof and prevent the vertical displacement of the
15 chair, while pins extending through the chair into the top flanges of the tie prevent the chair from shifting, after it has been once placed in position.

The detail construction entering into my invention will be hereinafter more fully described and then specifically pointed out in the appended claims, and referring to the drawing forming part of this specification, like numerals of reference designate corresponding parts throughout the several views, in which:—

Figure 1 is a perspective view of one end of the tie constructed in accordance with my invention, illustrating a fastener in connection therewith, Fig. 2 is an elevation of a portion of a tie illustrating the fastener in cross section, Fig. 3 is a cross sectional view of the tie and the fastener.

35 The metallic tie 1 is of the I-beam construction and has its upper flanges 2 provided with two vertically disposed openings 3. Adapted to slide upon the upper flanges 2 of the tie 1 is a chair 4 having inwardly extending flanges 5 adapted to embrace the edges of the upper
40 flanges 2 of the tie. The chair 4 is provided with two vertically disposed openings 6 adapted to aline with the openings 3 whereby prior to placing the rails 7 upon the chair, headed pins 8 can be placed in the openings

6 and 3, to prevent lateral displacement or shifting of the chair 4. 45

In order that the sides of the rails 7 will be firmly held upon the chair, I form the same with upwardly extending flanges 9 adapted to engage the sides of the rails 7 beneath the heads thereof. Between the flanges 9 and the web portions 10 of the rails 7, I mount splice bars 11, which are recessed, as at 12 to allow for the expansion and contraction of the rails 7. The splice bars 11 rest upon the base flanges 14 of the rails 7 and embrace the web portions 10 of said rails, forming a positive fastener for the rails 7 and providing practically a continuous tread for the rolling stock adapted to pass over the rails. When the rails 7 are placed in position, it will be impossible for the headed pins 8 to become disengaged from the tie and the chair, and it will be equally as impossible for the chair to become detached from the tie. 60

Such variations in the minor details of construction 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

1. The combination with rails and a tie, of the I-beam construction for supporting said rails, of a chair slidably mounted upon the top flanges of said tie and having inwardly extending flanges adapted to embrace the edges of the top flanges of said tie, headed pins extending through said chair and the top flanges of said tie, upwardly extending flanges carried by said chair and embracing said rails beneath the heads thereof, and recessed splice bars interposed between the sides of said rails and said upwardly extending flanges for embracing the sides of said rails. 70

2. In a metallic tie and rail fastener, the combination with rails, of a tie of the I-beam construction adapted to support said rails, a chair slidably mounted upon said tie, pins extending through said chair into said tie, upwardly extending flanges carried by said chair and embracing the sides of said rails beneath the heads thereof, and recessed splice bars interposed between said flanges and the sides of said tie. 80

In testimony whereof I affix my signature in the presence of two witnesses. 85

WILLIAM A. MAITLAND.

Witnesses:

J. H. ELLIOTT,
FRANK W. DRESCH.