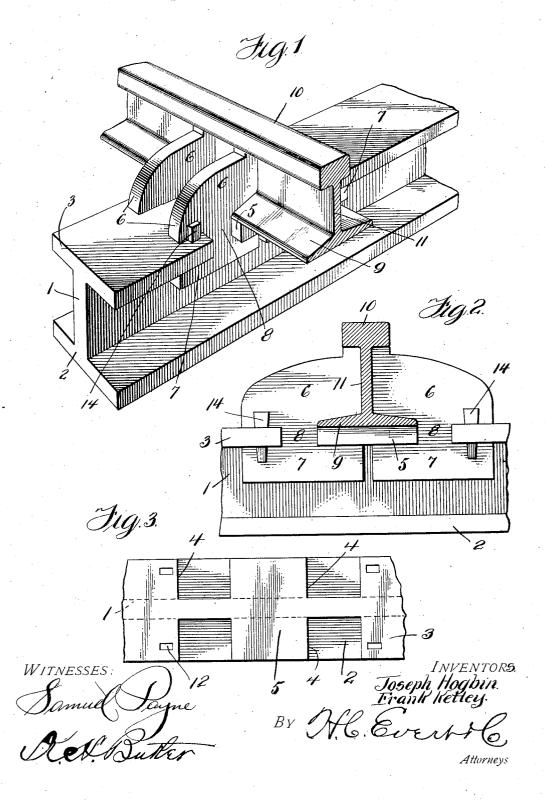
## J. HOGBIN & F. KETLEY. METALLIC TIE AND RAIL FASTENER. APPLICATION FILED FEB. 15, 1907.



## UNITED STATES PATENT OFFICE.

JOSEPH HOGBIN AND FRANK KETLEY, OF PITTSBURG, PENNSYLVANIA.

## METALLIC TIE AND RAIL-FASTENER.

No. 854,501.

Specification of Letters Patent,

Patented May 21, 1907.

Application filed February 15, 1907. Serial No. 357,454.

To all whom it may concern:

Be it known that we, Joseph Hogbin and Frank Ketley, citizens of the United States of America, residing at Pittsburg, in the 5 county of Allegheny and State of Pennsylvania, have 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 has for its object to provide a simple and inexpensive fastener for securing a rail to a metallic tie.

Our invention aims to dispense with the use of nuts and bolts for firmly securing a rail upon a tie, also to dispense with the use of wooden ties. To this end, we have devised a metallic tie of the I-beam construction, and in connection with said tie we use a plurality of fasteners for firmly securing a rail upon the tie, said fasteners consisting of heads adapted to bear directly upon the base flanges of the rail and brace the web and 25 head portions thereof.

The detail construction of our invention will be hereinafter more fully described and then specifically pointed out in the appended claims, and referring to the drawing form30 ing part of this specification, like numerals of reference designate corresponding parts throughout the several views, in which:—

Figure 1 is a perspective view of our improved fastener, Fig. 2 is an end view of the same, and Fig. 3 is a plan of a portion of a metallic tie constructed in accordance with our invention.

To put our invention into practice, we provide a tie of an I-beam construction consisting of a web portion 1, base flanges 2, and rail supporting flanges 3. The flanges 3 are provided with diametrically opposed slots 4 upon each side of the web 1 and the rail seat 5. Fitting in said slots are fasteners consisting of integral heads 6 and 7, said heads being connected by necks 8 adapted to fit snugly within said slots. The heads 6 are adapted to bear upon the flanges 3 of the tie, the base flanges 9 of the rail 10, and impinge 50 against the web portion 11 of the rail. The

heads 7 are adapted to engage the underneath face of the flanges 3, and rail seat 5.

To retain the fasteners in position, we provide the rail supporting flanges 3 adjacent to each slot with a key opening 12 for keys 14, 55 said keys being adapted to bear against the outer sides of said fasteners, and in order that said keys may be locked within their openings, the lower ends of said keys can be split or provided with cotter pins (not 60 shown).

From the foregoing description taken in connection with the drawing, it will be observed that we have devised novel fasteners for a metallic tie of the **I**-beam construction, 65 said fasteners being arranged to firmly brace the sides of a rail and prevent lateral and vertical displacement of said rail upon a tie.

It will of course be understood that the fasteners are constructed of strong and du- 70 rable metal, and that such changes in the size, proportion and 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 we claim and desire to secure by Letters Patent, is:—

A metallic tie of the **I**-beam form having recesses in its upper flange spaced apart at opposite sides of the rail bearing and extend-80 ing to the vertical web of the beam, rectangular apertures through the upper flange adjacent to said recesses, clamping plates bearing in the recesses of the beam and against the vertical web of the same and with recesses in its ends respectively engaging the beam flange at the ends of the beam recesses and likewise extending over the tie flanges and against the vertical web of the rail, and wedge keys fitting in said rectangular aper-90 tures and locking the clamp plates in position.

In testimony whereof we affix our signatures in the presence of two witnesses.

JOSEPH HOGBIN. FRANK KETLEY.

Witnesses:
MAX H. SROLOVITZ,

A. J. Trigg.