No. 694,716. Patented Mar. 4, 1902.

M. BERRINGER.

METALLIC TIE AND RAIL FASTENER.

(Application filed Dec. 26, 1901.)

(No Model.)

Fig. 1.

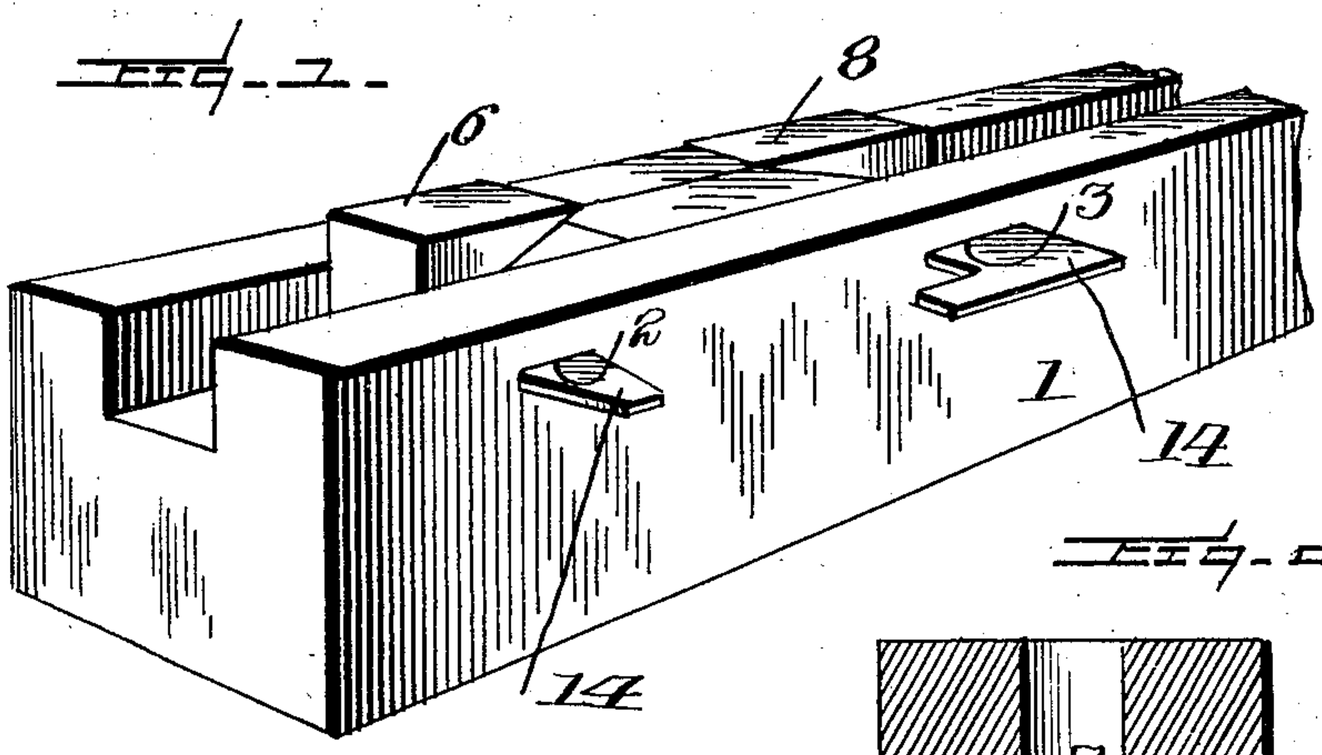


Fig. 2.

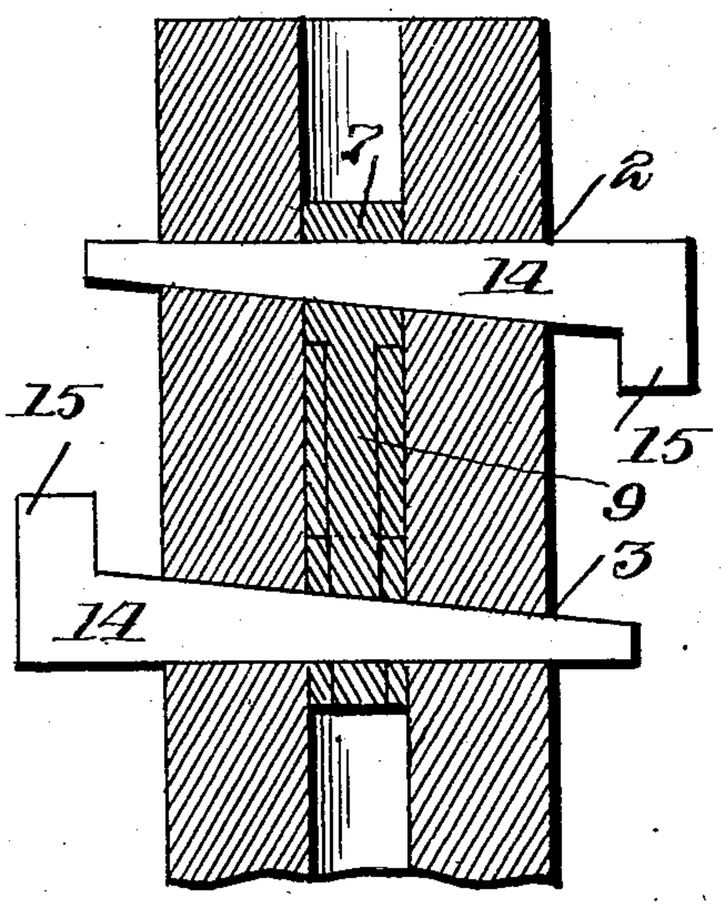


Fig. 3.

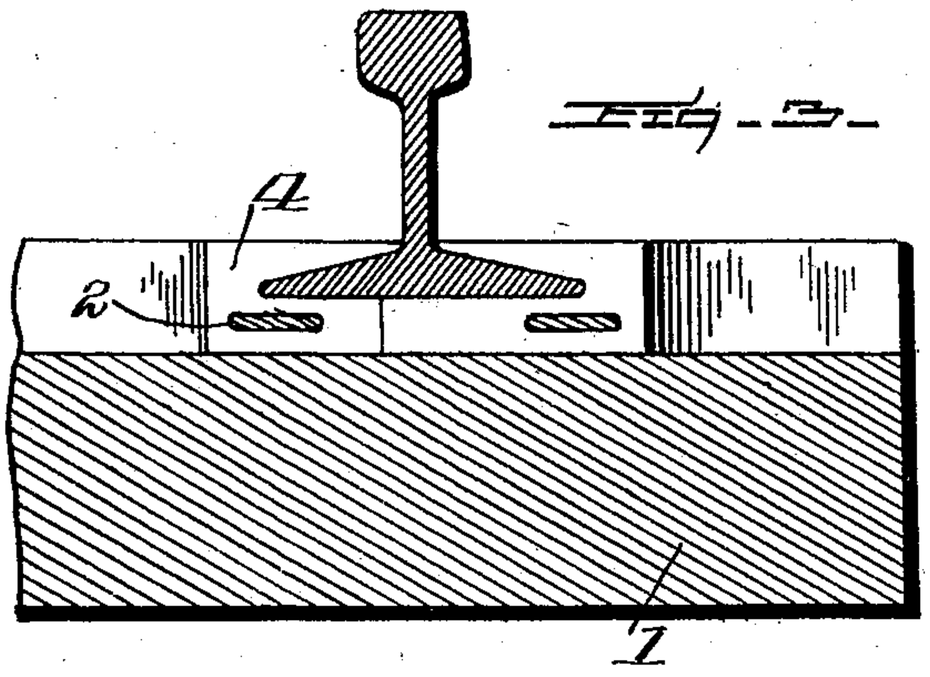


Fig. 4.

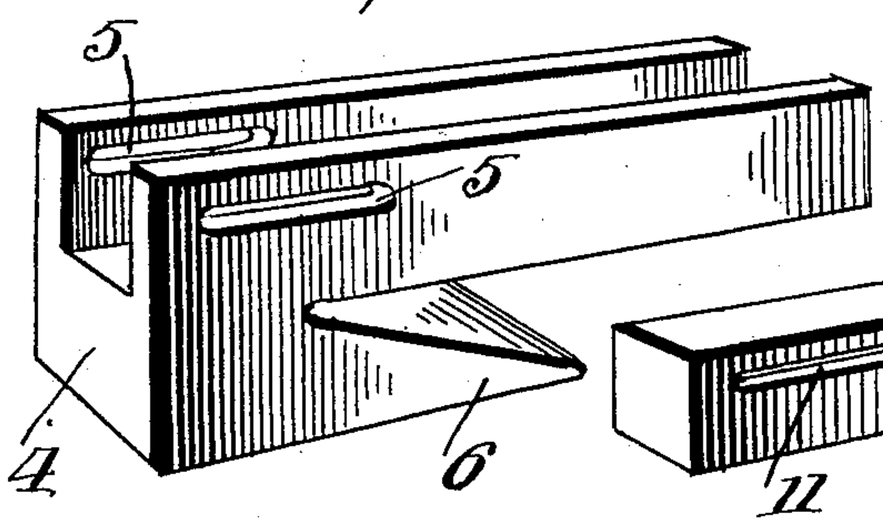
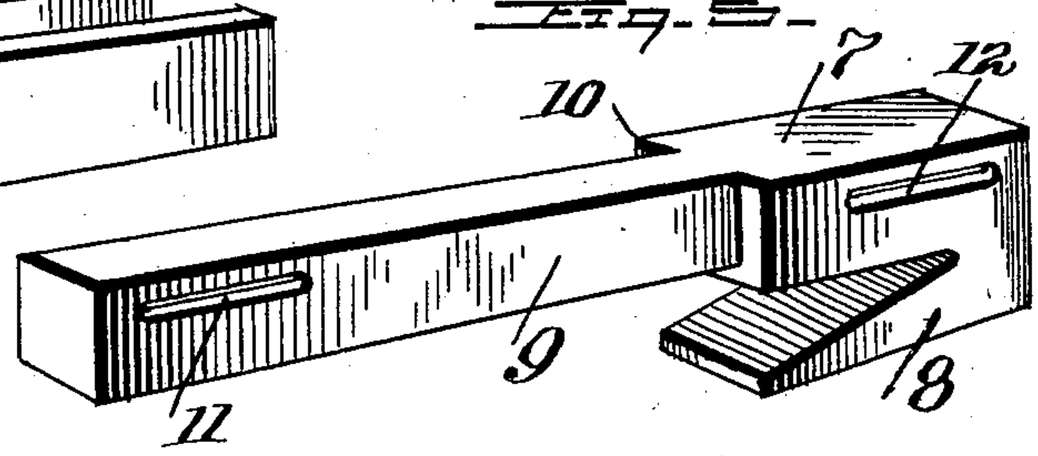


Fig. 5.



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UNITED STATES PATENT OFFICE.

MATHIAS BERRINGER, OF CARRICK, PENNSYLVANIA.

METALLIC TIE AND RAIL-FASTENER.

SPECIFICATION forming part of Letters Patent No. 694,716, dated March 4, 1902.

Application filed December 26, 1901. Serial No. 87,139. (No model.)

To all whom it may concern:

Be it known that I, MATHIAS BERRINGER, a citizen of the United States of America, residing at Carrick, in the 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 certain new and useful improvements in metallic ties and rail-fasteners, and has for its object the provision of novel means whereby rails may be securely fastened to the tie and provided means whereby the rail will be allowed expansion and contraction which are due to the changes in temperature.

The present invention consists in a metallic tie formed of a channel-bar having wedge-shaped openings formed therein, which extend in opposite directions through the web of the tie; and the invention further consists in providing a fastener comprising a male and female member which when locked together form a chair in which the base of the rail is seated and securely fastened.

With the above and other objects in view the invention consists in the novel combination and arrangement of parts to be hereinafter more fully described, and specifically pointed out in the claims.

In describing the invention in detail reference is had to the accompanying drawings, forming a part of this specification, and wherein like numerals of reference indicate like parts throughout the several views, in which—

Figure 1 is a perspective view of the end of the metalllc tie provided with my improved fastener. Fig. 2 is a longitudinal sectional view of the fastener. Fig. 3 is a vertical sectional view showing the rail in position. Figs. 4 and 5 are inverted perspective views of the female and male clamping members.

In the drawings the reference-numeral 1 represents the metallic tie, which is formed of a channel-bar having formed in the web portion thereof wedge-shaped openings 2 and 3, extending in opposite directions through the web portions of the tie.

The reference-numeral 4 represents the female clamping member, which is likewise formed of a channel-bar having formed therein elongated openings 5 5 and an inwardly-extending clamping member 6.

The reference-numeral 7 represents the male clamping member carrying the clamping portion 8 and the shank 9, forming the shoulders 10. In said shank portion is formed an elongated slot 11. A similar slot 12 extends through the body portion of the female member.

The reference-numerals 14 represent the wedge-shaped locking-keys carrying heads 15, said locking-keys extending in opposite directions through the web portion of the metallic tie, one of said keys extending through the slot 5, formed in the female member, and through slot 11, formed in the male member, and the other key extending in the opposite direction through the slot 12 and slot 3 of the metallic tie.

It will be seen that when the clamping members are arranged as herein shown the ends of the channel-bar of the female member will abut against the shoulders 10 of the male member and the clamping extensions 6 and 8 will form a chair for the base of the rail, preventing the rails from spreading or creeping.

In lieu of the members 6 and 8 the male and female members may carry integral fish-plates to form the rail-joint and will securely fasten the rails together.

The many advantages obtained by the use of my improved device will be readily apparent from the foregoing description, taken in connection with the accompanying drawings.

It will be noted that various changes may be made in the details of construction without departing from the general spirit of my invention.

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

1. In a metallic tie and rail-fastener, the combination of a metallic tie formed of a channel-bar having wedge-shaped openings therein, a male and female member interlocking with one another, and means extending through said metallic tie and male and female members to securely lock said parts together, substantially as described.

2. In a metallic tie, and rail-fastener, the

combination of a metallic tie formed of a channel-bar having openings formed through the web of said channel-bar, interlocking male and female members forming a seat for the base of the rail, and wedge-shaped keys extending through said metallic tie and male and female members to lock the same securely together, substantially as described.

3. In a metallic tie and rail-fastener, the combination of a metallic tie formed of a channel-bar having wedge-shaped openings formed therein extending in opposite directions, a male and female clamping portion interlocking with each other, and means extending through said metallic tie and interlocking members for locking the tie and said interlocking members together, substantially as described.

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

MATHIAS BERRINGER.

Witnesses:

JOHN NOLAND,

E. E. POTTTR.