H. C. HUNT.

RAIL FASTENER.

APPLICATION FILED NOV. 13, 1908.

915,603.

Patented Mar. 16, 1909.

Fig. 1.

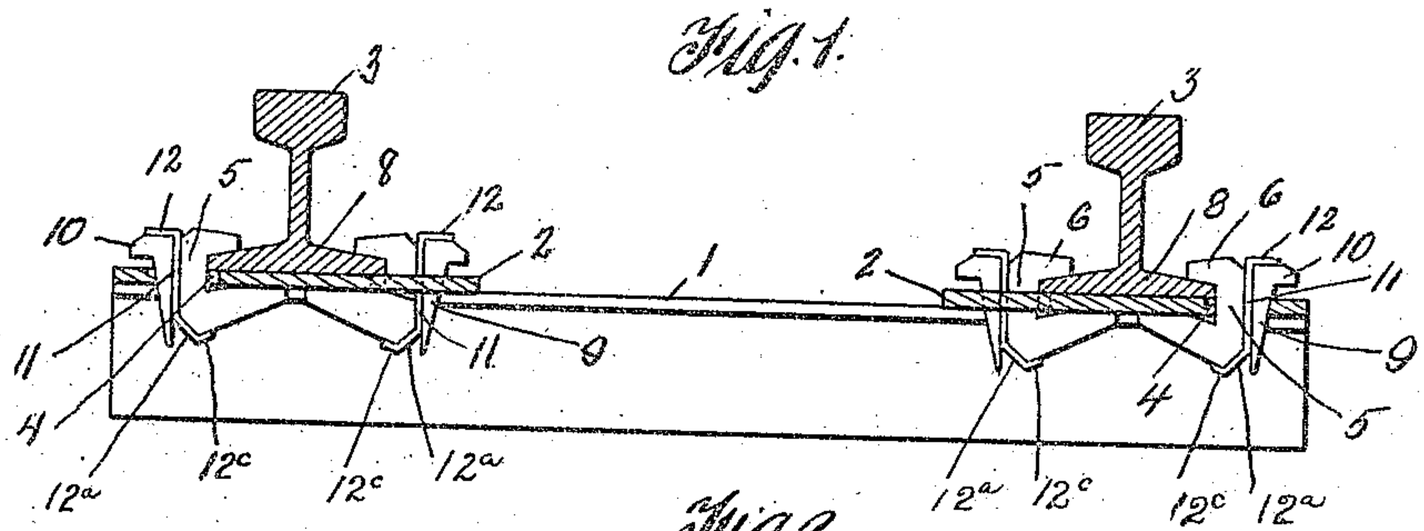


Fig. 2.

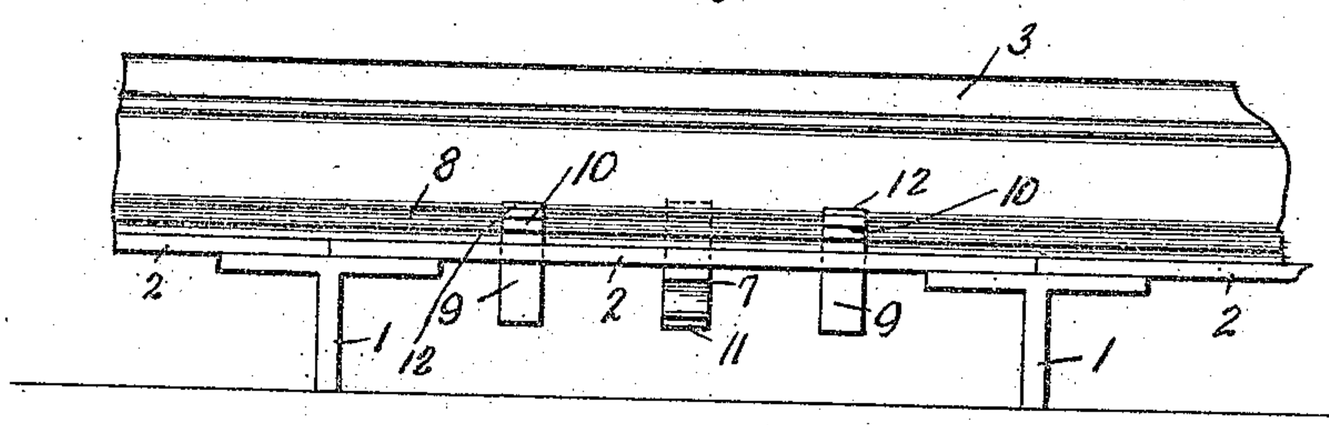


Fig. 3.

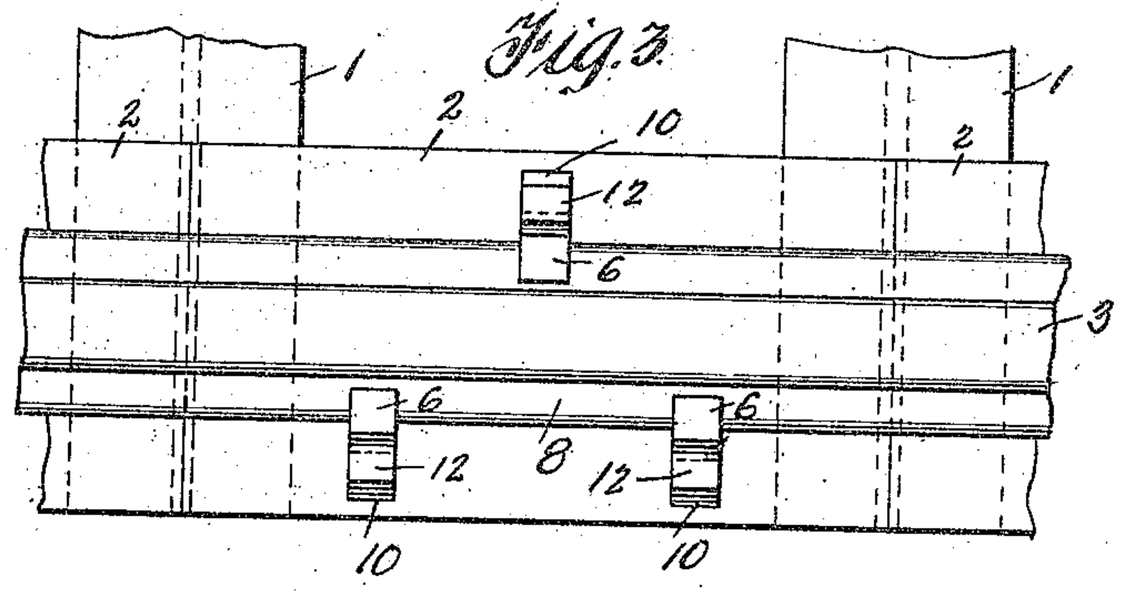


Fig. 4.

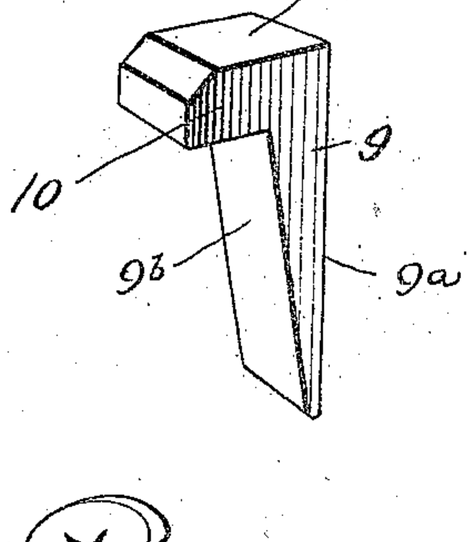
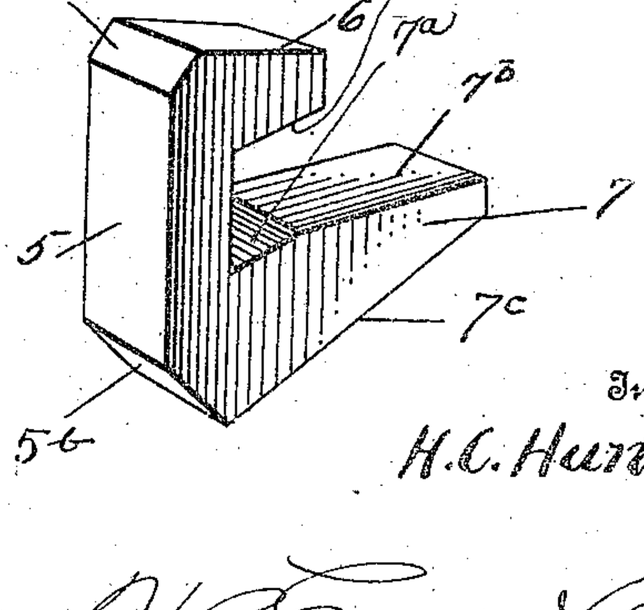


Fig. 5.



Witnesses

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UNITED STATES PATENT OFFICE.

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RAIL-FASTENER.

No. 915,603. Specification of Letters Patent. Patented March 16, 1909.

Application filed November 13, 1908. Serial No. 462,503.

To all whom it may concern:

Be it known that I, HOMER C. HUNT, a citizen of the United States of America, residing at Duquesne, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Rail-Fasteners, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to rail fasteners particularly adapted for use in connection with metallic ties and the object thereof is to provide in a manner as hereinafter set forth, rail fasteners carried by longitudinal sleepers or base plates seated upon the ties and which will provide practically a continuous joint thereby eliminating the jarring and bumping of rolling stocks when passing over the confronting ends of two rails; furthermore to provide a fastener in a manner as hereinafter set forth that will securely retain the rails in engagement with the sleepers or base plates so as to prevent lateral, longitudinal and vertical displacement of the rails.

The above objects are attained by a structure that will be hereinafter described and then specifically claimed.

In the drawings:—Figure 1 is a side elevation of a rail fastener partly in section, Fig. 2 is an end view of the same, Fig. 3 is a plan, Fig. 4 is a perspective view of the outer member of the fastener, and Fig. 5 is a similar view of the inner member of the fastener.

In the accompanying drawings, 1 designates metallic ties, T-shaped in cross section. These ties are suitably spaced apart in the ballast of a road bed, and upon the ties are secured in any suitable manner longitudinal sleepers or base plates 2, said sleepers or base plates adjoining upon the ties. These sleepers or base plates are adapted to support rails 3 and to secure said rails to the sleepers or base plates 2, a plurality of fastening devices are employed, which are staggeredly arranged relative to the rails 3, between the ties 1. Each of said fastening devices comprises an inner coupling member, an outer wedge member and an intermediate locking member. The coupling, wedge and locking members of each fastening device are positioned in a rectangular opening 4 formed in the base plate 2.

The coupling member consists of a vertically extending body portion 5 beveled at its upper outer corner and lower outer corner as at 5^a and 5^b respectively. Projecting laterally from the upper end of the body portion 5 is a gripping arm 6 beveled on its upper and lower face as at 6^a. Projecting laterally from the lower end of the body portion 5 is a gripping arm 7 of greater length than the gripping arm 6 and the said arm 7 has a portion of its upper face flat as at 7^a and its remaining portion beveled as at 7^b. The lower face of the gripping arm 7 is beveled as at 7^c. The lower face 6^a of the gripping arm 6 is beveled so as to conform to the upper face of one side of the base of a rail 3. The flat portion 7^a of the gripping arm 7 conforms to the lower face of a base plate 3.

The wedge member comprises a body portion 9 of wedge-like formation, the inner face of said body portion 9 being flat as at 9^a and its outer face beveled as at 9^b. Projecting laterally from the upper end of the body portion 9 of the wedge member is an angular extension 10 having a flat upper face 10^a.

The intermediate locking member consists of a strip of malleable metal 11 adapted to be placed between the body portions 5 and 9 of the coupling and wedge members, when the said coupling and wedge members are positioned in an opening 4. The wedge members are then driven downwardly which causes the coupling member to clamp one side of the base of the rail 3 to the base plate 2. In this connection, it will be stated that the gripping arm 6 of the coupling member 5 engages one side of the base of the rail 3 and the upper face 7^a of the gripping arm 7 engages the lower face of the base plate 3, the body portion 9 of the wedge member being forced against one edge of the slot or opening 4 and said wedge member in connection with the locking member securely retaining the coupling member in position. The upper end of the locking member 11 is then bent at right angles as at 12 to engage the upper face 10^a of the arm 10 and the lower arm of the locking member 11 is bent at an inclination as at 12^a to engage the corner 5^b of the coupling member and then upwardly at an inclination as at 12^c to engage the bottom 7^c of the gripping arm 7. By positioning the ends of the locking member 11 in the manner as stated, provision is made to prevent the accidental displacement of said locking members due to vibrations when the rolling stock is passing over the rails or to other causes.

The metallic ties 1 and the base plates 2 can be easily rolled from strong and durable metal, consequently the expense of manufacturing the same is reduced to a minimum.

While in the drawings forming a part of this application there is illustrated the preferred embodiments of my invention, it is obvious that the same can be varied or changed as to shape, proportion and manner of assemblage without departing from the spirit of the invention.

Having now described my invention what I claim as new, is:—

1. A rail fastener comprising the combination with a base plate mounted upon a pair of ties and extending in the direction of the length of a track bed, said base plate provided with a plurality of openings and further adapted to support the confronting ends of a pair of rails, of coupling members extending through said openings and each provided with an upper and a lower gripping arm engaging respectively the upper face of the base of the rail and the lower face of said base plate, each of said coupling members further provided with a beveled lower corner and each of the lower arms of said coupling members having an inclined lower face, wedge members extending through said openings at one side of the coupling members, said wedge members each having at its top a horizontal arm provided with a flat upper face, and locking members positioned between the wedge and coupling members; and each having its upper end engaging the flat upper face of an angular arm of a wedge member and its lower end engaging the beveled lower corner of a coupling member and the inclined lower face of a lower arm of a coupling member.

2. A rail fastener comprising the combination with a base plate mounted upon a pair of ties and extending in the direction of the length of a track bed, said base plate provided with a plurality of openings and further adapted to support the confronting ends of a pair of rails, of coupling members extending through said openings and each provided with an upper and a lower gripping arm engaging respectively the upper face of the base of the rail and the lower face of said base plate, each of said coupling members further provided with a beveled lower corner and each of the lower arms of said coupling members having an inclined lower face, wedge members extending through said openings at one side of the coupling members, said wedge members each having at its top a horizontal arm provided with a flat upper face, and locking members positioned between the wedge and coupling members, and each having its upper end engaging the flat upper face of an angular arm of a wedge member and its lower end engaging the beveled lower corner of a coupling member and the inclined lower face of a lower arm of a coupling member, the said lower arms of said coupling members being of greater length than the upper arms of said members.

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

HOMER C. HUNT.

Witnesses:
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