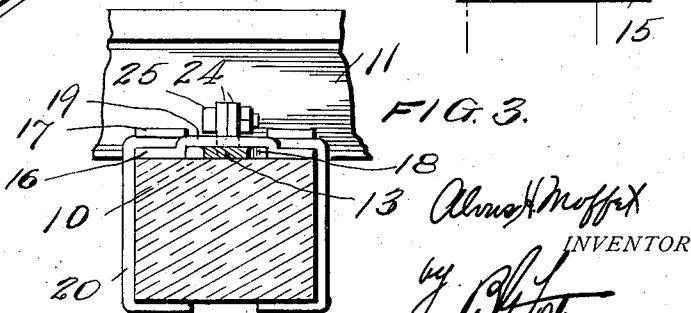
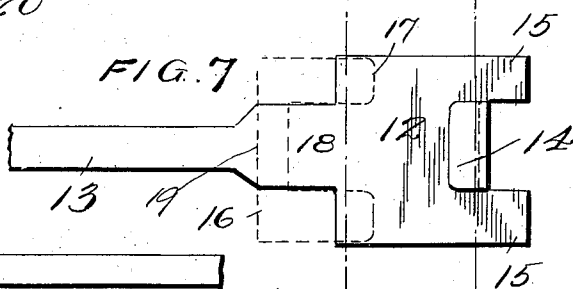
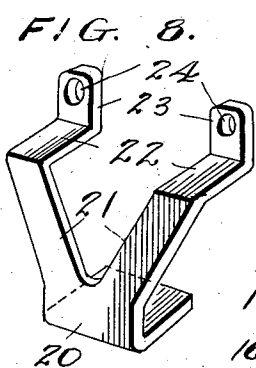
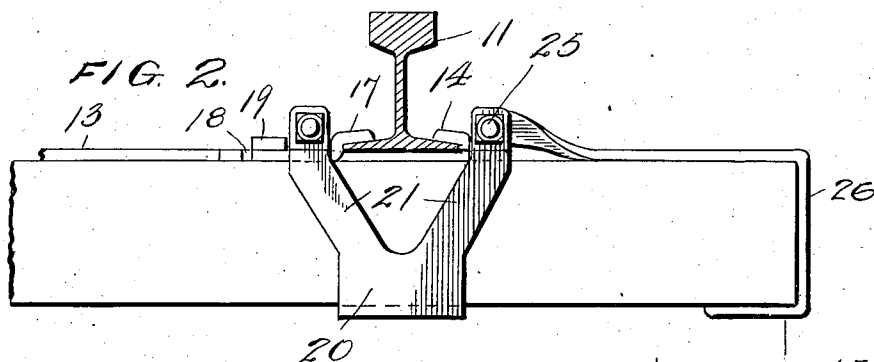
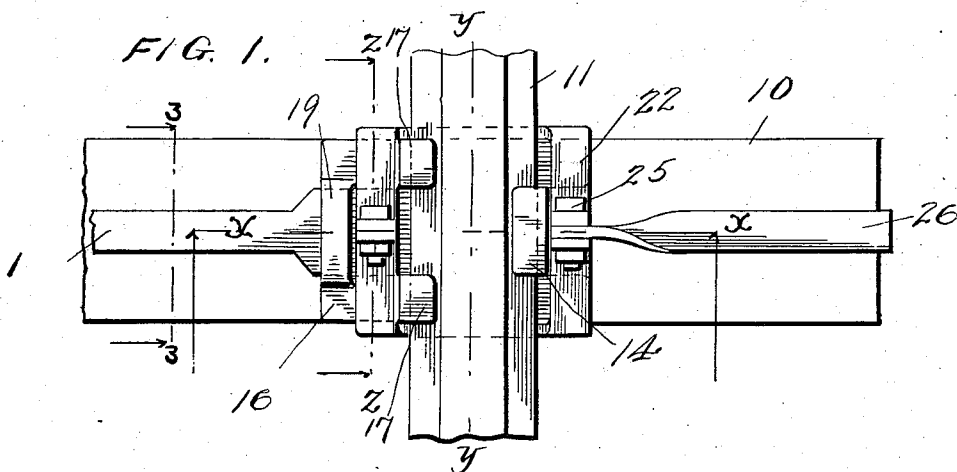


A. H. MOFFET.
 TRACK FASTENING.
 APPLICATION FILED JUNE 8, 1911.

1,014,166.

Patented Jan. 9, 1912.
 2 SHEETS-SHEET 1.



WITNESSES

C. H. Davis

A. C. Welch.

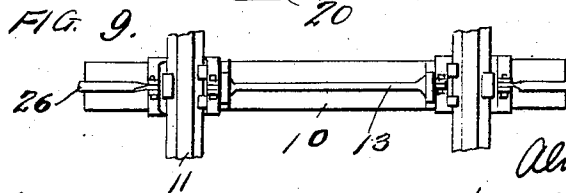
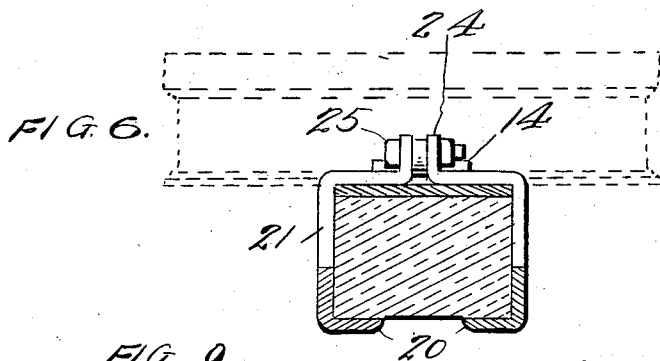
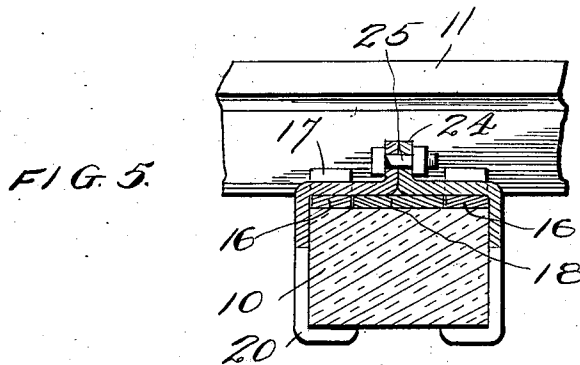
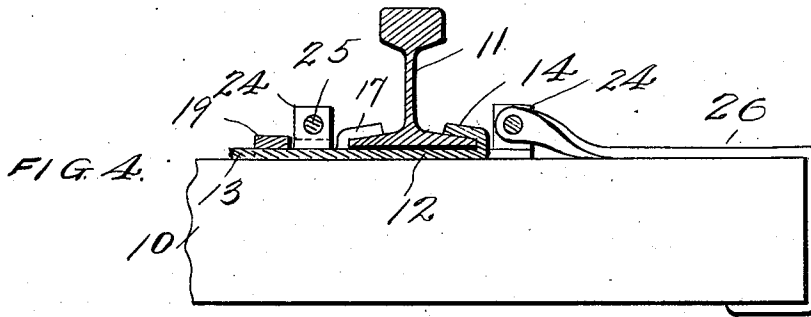
Alfred Moffet
 INVENTOR
 by [Signature]
 Attorney

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2 SHEETS—SHEET 2.



WITNESSES

C. H. Davis

A. C. Welch

INVENTOR,

Alvin H. Moffet
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Attorney

UNITED STATES PATENT OFFICE.

ALVUS H. MOFFET, OF LARNED, KANSAS.

TRACK-FASTENING.

1,014,166.

Specification of Letters Patent.

Patented Jan. 9, 1912.

Application filed June 8, 1911. Serial No. 632,069.

To all whom it may concern:

Be it known that I, ALVUS H. MOFFET, a citizen of the United States, residing at Larned, in the county of Pawnee and State of Kansas, have invented new and useful Improvements in Track-Fastenings, of which the following is a specification.

The present invention relates to means for securing railway rails to ties, and the principal object is to provide novel and effective means of this character that will not weaken the tie structure, but as a matter of fact reinforce the same, thus making it particularly useful for concrete and analogous ties.

One embodiment of the invention is illustrated in the accompanying drawings, but it will be evident from an inspection of the claims hereto appended that the invention is not limited to this one specific structure.

In the drawings, Figure 1 is a plan view of a portion of a tie and a portion of a rail thereon, the latter being secured by the novel means. Fig. 2 is a side elevation. Fig. 3 is a cross sectional view on the line 3—3 of Fig. 1. Fig. 4 is a sectional view on the line X—X of Fig. 1. Figs. 5 and 6 are respectively sections on the lines Y—Y and Z—Z of Fig. 1. Fig. 7 is a plan view of one of the tie plates. Fig. 8 is a perspective view of one of the tie engaging hooks. Fig. 9 is a plan view on a small scale of the complete structure mounted on the tie.

Similar reference numerals designate corresponding parts in all the figures of the drawings.

The tie is designated generally by the reference numeral 10, and mounted thereon, are the usual spaced rails 11. Interposed between the tie and each rail is a tie plate 12, preferably of comparatively heavy sheet metal, these tie plates being connected by a bar 13 that may be integral. In other words, both the tie plates and the connection may be formed of a single piece, or of separate sections, as may be desired. Each tie plate is provided with an upstanding integral hook 14 that engages over the outer base flange of the rail 11, and this hook, it will be noted by reference to Fig. 7, is located between a pair of outstanding tongues 15 that lie upon the tie, adjacent to the side edges thereof.

A rail-engaging or holding clip 16 has spaced terminal portions 17 that engage over the inner base flange of each rail, these clips extending over the inner sides of the tie

plates, which inner sides are preferably reduced, as shown at 18. The clip is offset, as shown at 19 to accommodate the reduced portion 18 of the tie plate.

In order to secure the parts in place, tie-embracing hooks 20 are located beneath each rail, and have divergent upwardly extending branches 21 that are bent over, as shown at 22, so as to lie upon the tongues 15 of the tie plate, and the terminal portions 17 of the clip 16 directly adjacent to the inner side of the rail. These branches terminate in upstanding ears 23 that are perforated, as shown at 24, and the ears of the opposite hooks are thus disposed in alinement, so as to receive fastening bolts 25 that securely maintain all the parts in position. If desired, the outer bolts may also serve as holding means for hooks 26 that engage over the ends of the tie, the inner ends of said hooks being located between the ears 23, as will be clear by reference to Figs. 1 and 2.

From the foregoing, it is thought that the construction, operation and many advantages of the herein described invention will be apparent to those skilled in the art, without further description, and it will be understood that various changes in the size, shape, proportion and minor details of construction, may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

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

1. The combination with a tie and a rail thereon, of a rail engaging device mounted on the tie, opposite rail-embracing members extending about opposite sides of the tie and over the rail engaging device, and means for securing the members together over the rail-engaging device.

2. The combination with a tie and a rail thereon, of a rail engaging clip mounted on the tie, opposite tie engaging hooks extending about opposite sides of the tie and over the clip, and a bolt for securing the hooks together over the clip.

3. The combination with a tie, of a rail thereon, a tie plate interposed between the tie and rail, oppositely disposed tie embracing hooks having separate portions extending over the tie plate, and a device detachably connecting said portions of the hooks above the tie.

4. The combination with a tie, of a rail thereon, a tie plate interposed between the tie and rail, and having an upstanding rail-engaging hook, oppositely disposed tie-embracing hooks having separate portions extending over the tie plate, and a detachable connection between said portions of the hooks over the tie and tie plate.
5. The combination with a tie, of a rail thereon, a tie plate having spaced outstanding tongues located on the tie and having an upstanding rail engaging hook between the tongues, and means embracing the tie and engaging over the tongues to hold the tie plate to the tie.
6. The combination with a tie, of a rail thereon, a tie plate interposed between the tie and rail, and having outstanding tongues located against the tie, and a rail engaging hook arranged between the tongues, and hooks embracing the tie and engaging over the tongues, said hooks having upstanding ears, and a bolt passing through the ears.
7. The combination with a tie, of a rail thereon, holding means engaging opposite sides of the rail, and securing means embracing the tie and having branches on each side of the tie and extending on opposite sides of the rail, said branches extending over the holding means.
8. The combination with a tie, of a rail thereon, rail holding means engaging opposite sides of the rail and located upon the tie, hooks embracing opposite sides of the tie

beneath the rail, said hooks having divergent branches extending over the rail holding means, and bolts securing the branches together.

9. The combination with a tie and a rail thereon, of a tie plate interposed between the tie and rail and having a rail engaging hook, a rail holding clip engaging the rail on the opposite side to the hook, hooks embracing the tie below the rail and having branches that respectively engage over the tie plate and clip, said branches having upstanding oppositely disposed ears, and bolts passing through the ears.

10. The combination with a tie, of spaced rails thereon, tie plates interposed between the tie and rails and having a connection between them, said tie plates having upstanding rail engaging hooks, clips mounted on the tie plates and engaging the opposite sides of the rails to the hooks, tie embracing hooks arranged beneath the rails and having branches located on opposite sides of the rails and respectively extending over the tie plates and clips, and bolts connecting the branches.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

ALVUS H. MOFFET.

Witnesses:

ALICE TICKELL,
NELLIE HEATON.