A. H. MOFFET.

RAIL FASTENING.

APPLICATION FILED JUNE 8, 1911.

1,014,088.

Patented Jan. 9, 1912.

2 SHEETS—SHEET 1.

FIG. 1.

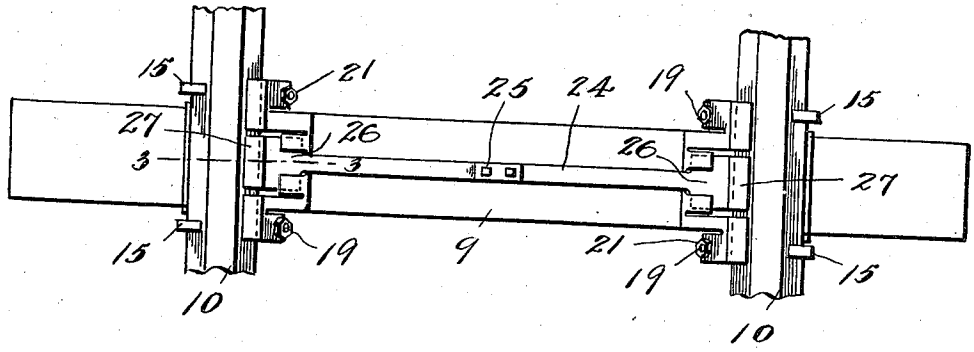


FIG. 2.

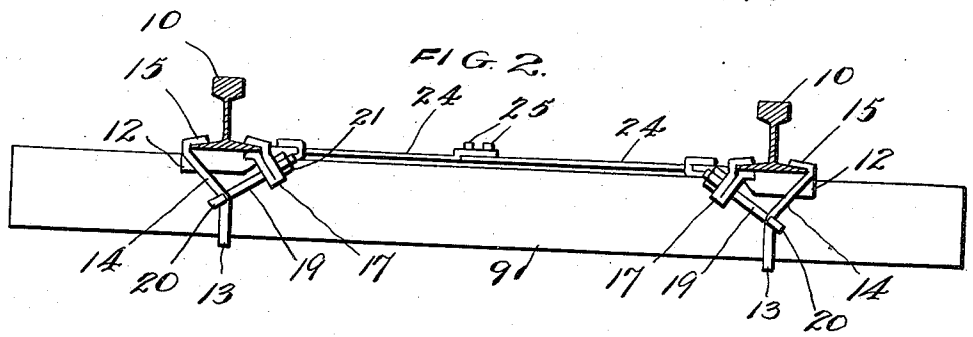
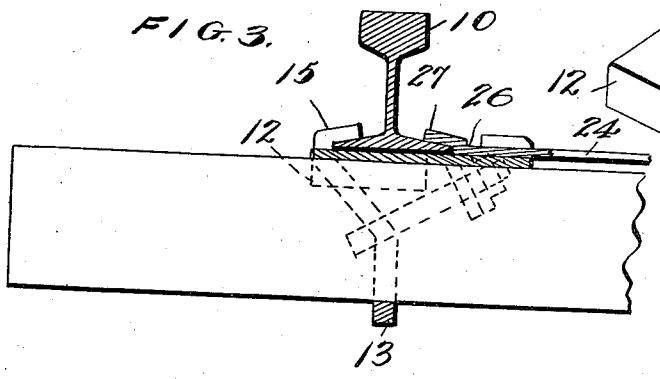


FIG. 3.



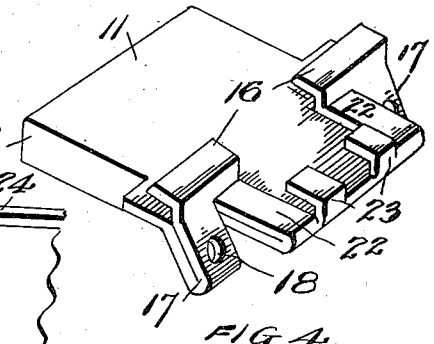


FIG. 4.

WITNESSES

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2 SHEETS—SHEET 2.

FIG. 5.

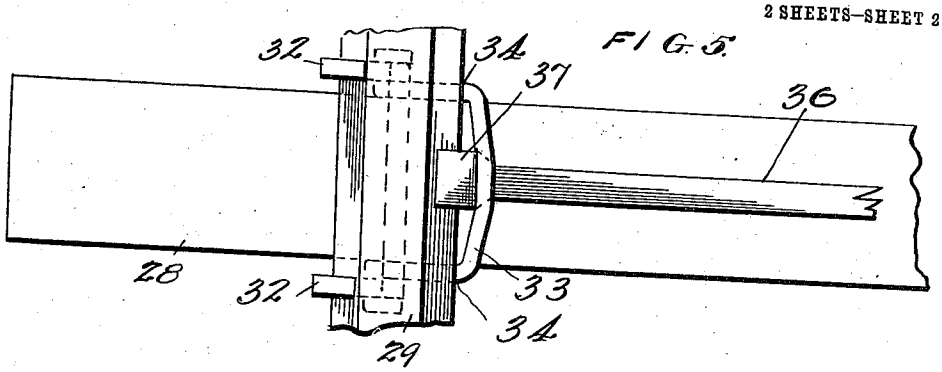


FIG. 6.

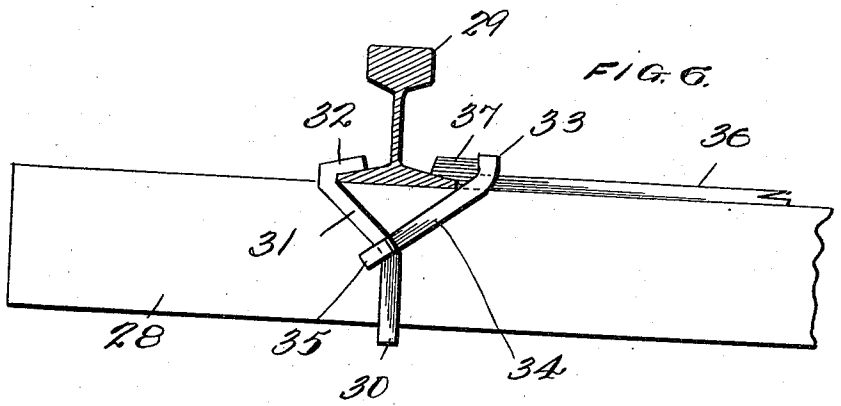
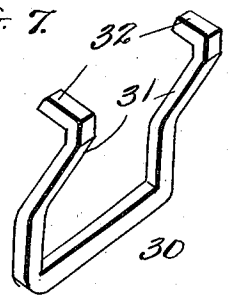


FIG. 7.



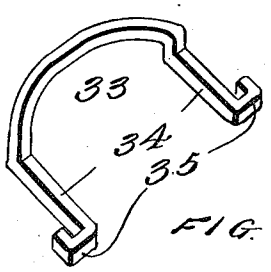


FIG. 8.

WITNESSES

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RAIL-FASTENING.

1,014,088. Specification of Letters Patent. Patented Jan. 9, 1912.

Application filed June 8, 1911. Serial No. 632,070.

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 Rail-Fastenings, of which the following is a specification.

The present invention relates to means for fastening railroad rails to ties, and is especially useful for securing rails to concrete ties.

The object of the invention is to provide an effective fastening that will not weaken or injure the tie.

Two forms of construction are illustrated in the accompanying drawings, wherein:—

Figure 1 is a plan view of one embodiment. Fig. 2 is a side elevation of the same. Fig. 3 is a cross sectional view on the line 3—3 of Fig. 1. Fig. 4 is a detail perspective view of the tie plate. Fig. 5 is a plan view of a modified form of construction. Fig. 6 is a side elevation of the same. Figs. 7 and 8 are perspective views of the yoke and holding device of the form illustrated in Figs. 5 and 6.

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

Referring to the embodiment disclosed in Figs. 1–4 inclusive, the tie is designated 9, and may be of any well known form. Located thereover, are the usual spaced rails 10, and interposed between these rails and the tie are tie plates 11, each having downturned flanges 12 that extend along opposite sides of the tie. A yoke 13 extends beneath each rail around the tie, and has offsets 14 located on opposite sides of the tie. Each yoke is provided with terminal hooks 15 that engage over the outer side of the rail base on opposite sides of the tie.

The tie plate has its inner side doubled over and provided with a pair of spaced clips 16 that engage over the inner side of the rail base. The corners of the tie plate are cut and bent downwardly to form ears 17 having openings 18, through which are passed bolts 19. These bolts have terminal hooks 20 that engage the yoke 13 on opposite sides of the tie and at the offsets of said yoke. Nuts 21 threaded on the bolts bear against the ears and serve to draw the structure tightly in assembled condition upon the rail base, as will be evident.

The portions between the ears 17 rest flat upon the tie, the margins in rear of the clips 16 being reinforced by the doubled portion, as illustrated at 22. Between these margins 22 are located a pair of upstanding hooks 23. A connecting bar 24, which may be made in sections bolted together as shown at 25, extends longitudinally of the tie between the rails, and is provided with terminal heads 26 that rest upon the tie plate to engage underneath the hooks 23. These heads have their end portions overhanging the inner sides of the rail bases, as illustrated at 27, forming clamps that additionally secure the rails to the tie.

A simple embodiment of the invention is illustrated in Figs. 5–8 inclusive. In this embodiment the tie is designated 28, and the rail is shown at 29. A yoke 30 extends around and beneath the tie. It is provided with opposite offsets 31 terminating in hooks 32 that engage over the outer side of the rail base. A holding device 33 extends alongside the rail base on the inner side of the rail, and has depending portions 34 terminating in hooks 35 that engage opposite sides of the yoke 30 at the offsets. A connecting bar 36 extends longitudinally of the tie and rests upon the same. This bar includes a head 37 that is engaged beneath the head 33 and overhangs the inner side of the rail base, thus effectively clamping the same upon the tie, while holding the part 33 in a manner to maintain the part 35 in proper engagement with the yoke 30 and through this arrangement, insuring the proper clamping action of the hooks 32.

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 yoke surrounding the tie and engaging the rail base on one side, and rail-fastening means engaging the opposite side of the rail and including means connected to the yoke at one side of the tie.

2. The combination with a tie and a rail

thereon, of a yoke surrounding the tie and engaging the rail base on one side, and rail-fastening means engaging the opposite side of the rail and including means connected to the yoke on opposite sides of the tie.

3. The combination with a tie and a rail thereon, of a yoke surrounding the tie and having terminals engaging one side of the rail base on opposite sides of the tie, and holding means for the opposite side of the rail base including elements extending along opposite sides of the tie and detachably engaging with the sides of the yoke.

4. The combination with a tie and a rail thereon, of a yoke surrounding the tie and having terminals engaging one side of the rail base on opposite sides of the tie, and holding means for the opposite side of the rail base including elements extending along opposite sides of the tie and having hooks engaged with the sides of the yoke.

5. The combination with a tie and a rail thereon, of a yoke surrounding the tie and having terminal hooks engaging one side of the rail base, said hooks having offsets on opposite sides of the tie, and holding means for the opposite side of the rail base including elements extending along opposite sides of the tie and having hooks engaged with the sides of the yoke at the offsets.

6. The combination with a tie and a rail thereon, of holding means extending across the tie at one side of the rail and secured to the tie at opposite sides of the same, and a rail clamping device extending longitudinally of the tie upon the same, said device engaging beneath the holding means, and engaging over the base flange of the rail that is located adjacent to the holding means.

7. The combination with a tie, and spaced rails thereon, of holding means for the rails extending across the tie at the inner sides of the rails, and a connecting bar extending longitudinally of the tie between the rails and engaging beneath the holding means, said bar having its ends engaging over the base flanges of the rails.

8. The combination with a tie and spaced rails thereon, of holding means for the rails extending across the tie at the inner sides of the rails, and a connecting bar extending longitudinally of the tie between the rails and engaging beneath the holding means, said bar having terminal hooks that engage over the inner sides of the rail bases.

9. The combination with a tie and spaced rails thereon, of yokes surrounding the tie and having terminal hooks engaging the outer sides of the rail bases, devices extending across the tie on the inner sides of the rails and including hooks located on opposite sides of the tie and engaging the yokes, and a connecting bar extending longitudinally of the tie between the rails and having end portions engaging beneath the devices, said bar having terminal hooks engaging over the inner sides of the rail bases.

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

ALVUS H. MOFFET.

Witnesses:
ALICE TIEKELL,
NELLIE HEATON.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents. Washington, D. C."