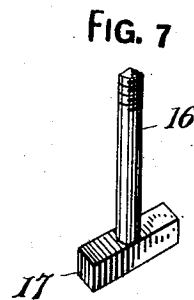
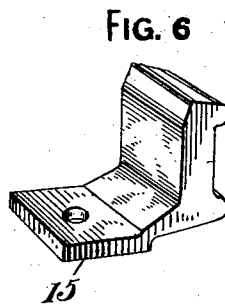
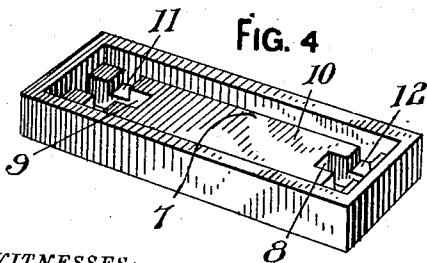
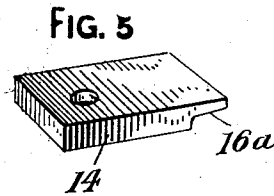
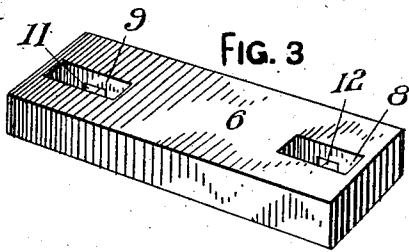
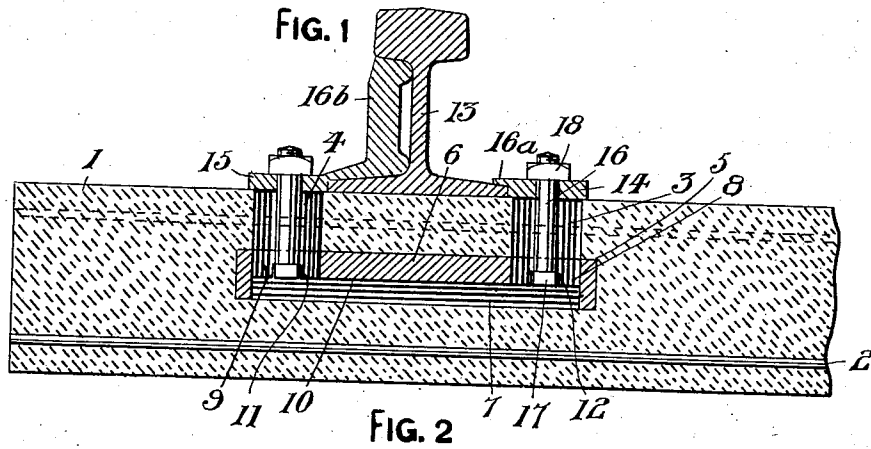


E. STACK.
 COMBINED TIE AND RAIL FASTENER.
 APPLICATION FILED AUG. 18, 1911.

1,024,953.

Patented Apr. 30, 1912.



WITNESSES:
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UNITED STATES PATENT OFFICE

EDWARD STACK, OF PITTSBURGH, PENNSYLVANIA.

COMBINED TIE AND RAIL-FASTENER.

1,024,953.

Specification of Letters Patent.

Patented Apr. 30, 1912.

Application filed August 18, 1911. Serial No. 644,761.

To all whom it may concern:

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

This invention relates to a combined tie and rail fastener, and has for its object to provide, in a manner as hereinafter set forth, a combined tie and rail fastener for not only supporting a track rail, but also for securing the track rail to the tie in a manner to prevent lateral and longitudinal displacement of the track rail.

Further objects of the invention are to provide a combined tie and rail fastener which is simple in its construction and arrangement, strong, durable, efficient in its use, conveniently set up with respect to the track rail, and comparatively inexpensive to manufacture.

With the foregoing, and other objects in view, the invention consists in the novel construction, combination and arrangement of parts as hereinafter more specifically described, and illustrated in the accompanying drawings, but it is to be understood that changes, variations and modifications can be resorted to, which fall within the scope of the claim hereunto appended.

In describing the invention in detail, reference is had to the accompanying drawings, wherein like reference characters denote corresponding parts throughout the several views, and in which—

Figure 1 is a longitudinal sectional view, broken away, of a combined tie and rail fastener in accordance with this invention, and further showing the adaptation thereof in connection with a track rail. Fig. 2 is a top plan view of the tie broken away. Fig. 3 is a perspective view of an anchoring plate forming an element of the fastener. Fig. 4 is a perspective view of the anchoring plate looking at the lower side thereof. Fig. 5 is a perspective of one of the rail fasteners. Fig. 6 is a perspective of the other rail fastener, and Fig. 7 is a perspective view broken away of one of the retaining bolts for a rail fastener.

Referring to the drawings in detail, the tie which is indicated by the reference char-

acter 1, is constructed of concrete and reinforced by longitudinal extending cylindrical bars 2, disposed throughout the body thereof.

The reference character 3, 4 denote a pair of vertically disposed openings formed in the upper face of the tie 1, and which communicate at the lower ends with a longitudinally extending pocket 5.

Mounted in the pocket 5, is a longitudinally extending anchoring plate 6, having its lower face cut away to provide a recess 7. The plate 6 near each end is formed with a vertically disposed rectangular opening communicating with the recess 7. The openings in the plate 6 are indicated 8, 9. The upper wall 10 of the recess 7 at each end thereof is formed with a pair of notches. The notches at one end are indicated at 11, and communicate with the openings 8. The notches at the other end are indicated at 12, and communicate with the opening 9.

Mounted upon tie 1 is a track rail 13, which is secured in position by a pair of rail fasteners indicated at 14, 15. The fastener 14 is formed with (at its inner end) an inwardly extending lip 16^a, adapted to overlap one side of the base of the rail 13. The fastener 15 has projecting from its inner end an inwardly extending and upwardly disposed brace 16^b which overlaps the other side of the base of the rail 13 and also engages the web and head of said rail. The lip 16^a and brace 16^b secure the rail to the tie so as to prevent lateral and longitudinal displacement.

The rail fasteners 14, 15 are secured in position by T-bolts 16, which extend down through the openings 3, 4 and 8, 9, and are then given a half turn so that the heads 17, thereof will engage in the notches 11 and 12, the top walls of the notches constituting stops for arresting upward movements of the bolts. Mounted upon the upper end of the bolts 16, said ends projecting above the rail fasteners and threaded, are nuts 18, which when they are secured against the rail fasteners and in connection with the heads of the bolts maintain the track rail in position.

What I claim is:—

In combination, a tie provided near each end with a longitudinally extending pocket 5 and a pair of vertically disposed openings communicating with said pocket inwardly of the ends thereof, an anchoring plate

mounted in and conforming to the contour
of said pocket and provided near each end
with a longitudinally extending opening
registering with a vertical opening, said
5 plate having its lower face provided with a
rectangular pocket, the upper wall of said
recess at each end being provided with a
transverse notch intersecting a rectangular
opening and extending in a plane central of
10 the length of the said opening, said notches
providing seats, T-bolts extending up
through said registering openings and hav-
ing their heads engaging said seat to pre-
vent withdrawal of the bolts, rail fastening

devices mounted upon said tie inclosing said 15
vertical openings and extended to engage
the base of a rail for maintaining it in posi-
tion, said bolts extending through said fas-
teners, and means mounted upon the pro-
jecting ends of the bolts for securing the 20
fasteners in position.

In testimony whereof I affix my signa-
ture in the presence of two witnesses.

EDWARD STACK.

Witnesses:

MAX H. SROLOVITZ,
MICHAEL STACK.

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