

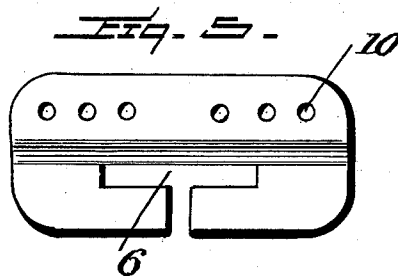
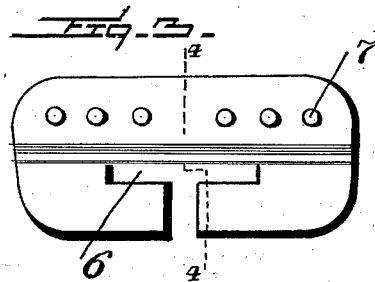
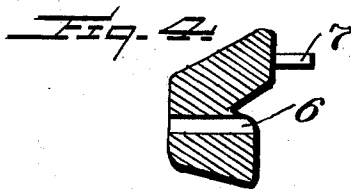
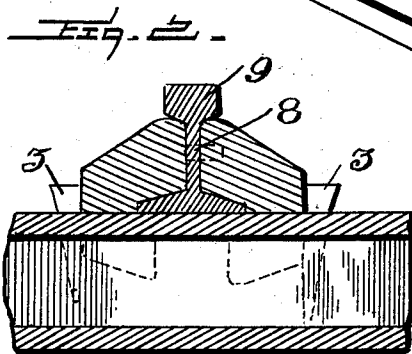
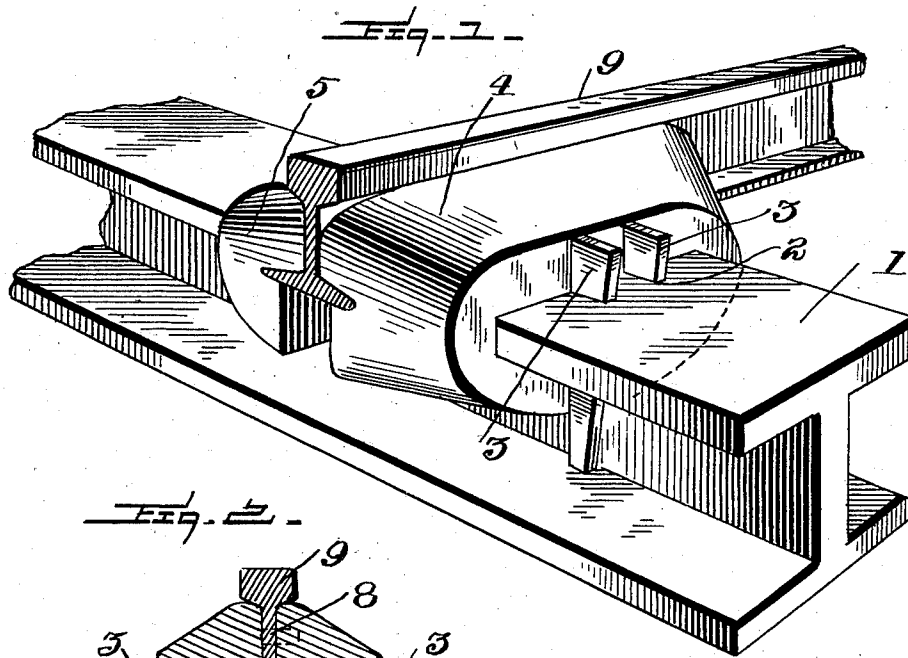
No. 698,615.

Patented Apr. 29, 1902.

E. ZAMBORSKY.
RAIL JOINT.

(Application filed Jan. 8, 1902.)

(No Model.)



Witnesses:
R. H. Butler.
E. E. Potter,

Inventor.
Eduard Zamborsky.
By *H. C. Everett & Co.*
Attorneys.

UNITED STATES PATENT OFFICE.

EDUARD ZAMBORSKY, OF WEST LEISERING, PENNSYLVANIA.

RAIL-JOINT.

SPECIFICATION forming part of Letters Patent No. 698,615, dated April 29, 1902.

Application filed January 6, 1902. Serial No. 88,538. (No model.)

To all whom it may concern:

Be it known that I, EDUARD ZAMBORSKY, a citizen of the United States of America, residing at West Leisering, in the county of Fayette and State of Pennsylvania, have invented certain new and useful Improvements in Rail-Joints, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention relates to certain new and useful improvements in metallic ties and rail-fasteners combined, and has for its object the provision of novel means whereby a rail may be securely fastened without the use of nuts
15 and bolts.

The present invention has for its object to construct a device of this character that may be easily applied to the tie and readily removed therefrom when desired; furthermore, to provide a device of this class that
20 will be extremely simple, strong, durable, and comparatively inexpensive to manufacture.

The herein-described invention broadly
25 consists in providing a novel form of fish-plates that are sleeved upon the tie and to provide fastening means securing said fish-plates to the tie and rail.

My invention further consists in providing
30 one of the said fish-plates with a series of studs extending through the web of the rail and engaging in corresponding openings formed in the opposite fish-plate and to further provide a metallic tie with wedge-shaped
35 openings to receive the wedges that will securely fasten the fish-plates in position.

The invention still further consists in the novel combination and arrangement of parts to be hereinafter more fully described, and
40 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
45 parts throughout the several views, in which—

Figure 1 is a perspective view of my improved metallic tie and rail-fastener combined. Fig. 2 is a vertical sectional view thereof. Fig. 3 is a side elevation of one of
50 the fish-plates carrying the studs. Fig. 4 is a vertical sectional view taken on the line 4 4 of Fig. 3. Fig. 5 is a side elevation of the

opposite fish-plate in which the openings are formed to receive the studs.

In the drawings the reference-numeral 1 55 represents an I-beam metallic tie having formed in the upper face thereof wedge-shaped openings 2 to receive wedges 3.

The reference-numeral 4 represents one of the fish-plates, and 5 the opposite fish-plate. 60 The said fish-plates have T-shaped openings 6 formed therein to receive the upper portion of the I-beam, which permits the fish-plates to be sleeved upon the metallic tie. The fish-plate 4 carries a series of pins 7 upon 65 its inner engaging face, these pins extending through openings 8, formed in the web of the rail 9, and extend into corresponding openings 10, formed in the inner face of the fish-plate 5. The wedges 3 extend vertically and
70 engage through the head of the tie on each side of the web thereof, the wedges engaging the outer faces of the fish-plates both above and below the head of the tie.

It will be seen that by my improved rail-
75 joint the wedges may be easily removed; and the fish-plates may be adjusted upon the metallic tie to permit the rails to be removed and replaced as desired, and the fish-plates may entirely be disconnected from the tie. 80

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
85 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
90 Patent, is—

1. In a metallic tie and rail-fastener, an I-beam metallic tie receiving the rails on the head thereof, fish-plates recessed on their inner faces and for receiving the rail-base 95 sleeved upon the head of the tie and engaging the web thereof, and vertically-extending wedges received in openings provided therefor in the head of the tie and on each side of the web of the tie, the wedges engaging the
100 web of the tie and the outer face of the fish-plates, substantially as described.

2. In a metallic tie and rail-fastener, an I-beam metallic tie receiving the rails on the

head thereof, fish-plates sleeved on the head
of the tie and engaging the web, said fish-
plates being recessed on their inner faces for
receiving the rail-base, said fish-plates ex-
5 tending beyond the sides of the tie and en-
gaging the upper and lower faces of the rail-
base, at that point, a series of studs carried
by one of the fish-plates and extending into
the other fish-plate, and vertically-extending

wedges engaging through the head of the tie 10
and abutting against the outer face of the fish-
plates, substantially as described.

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

EDUARD ZAMBORSKY.

Witnesses:

ARTHUR K. KNOTTS,
JASPER AUGUSTINE.