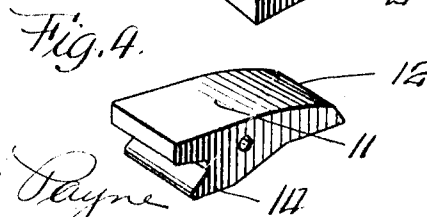
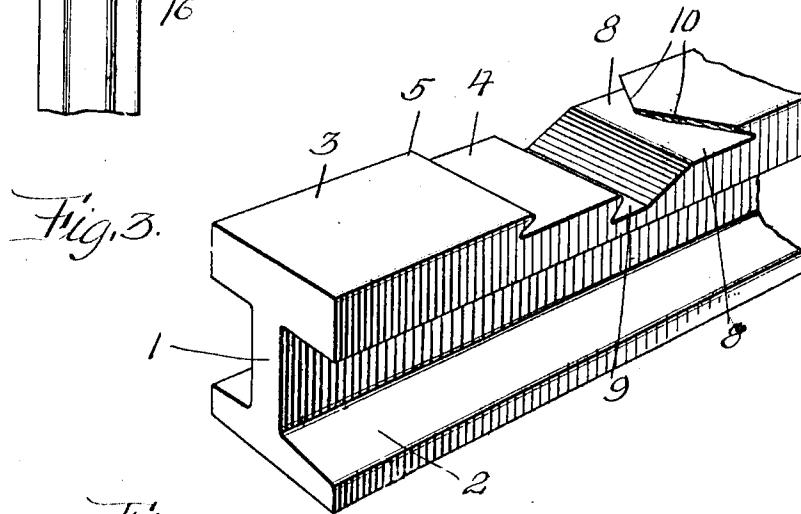
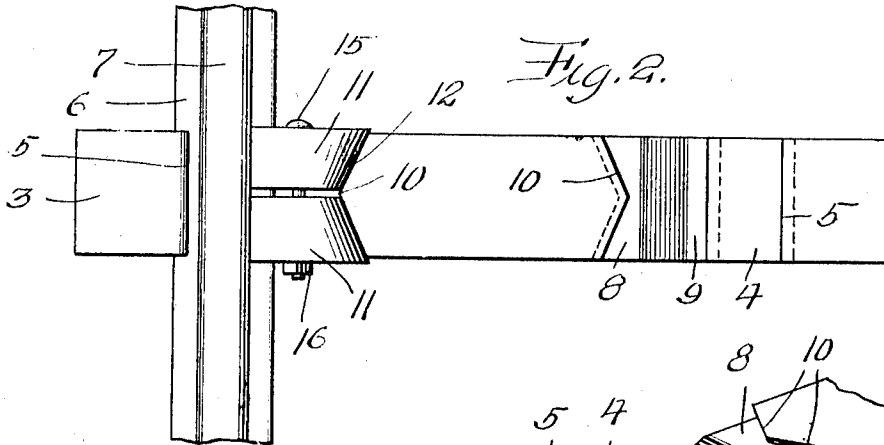
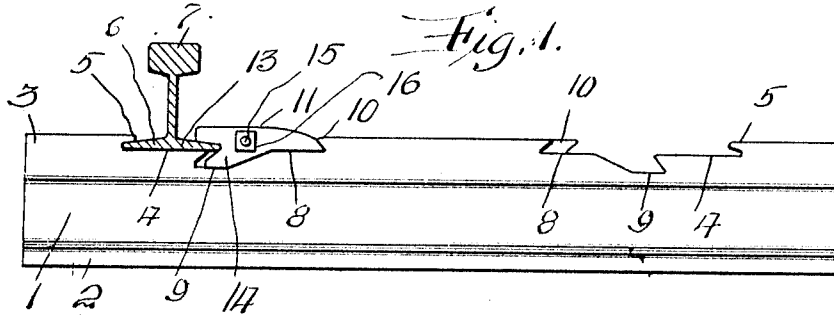


W. H. CRILLEY.
METALLIC TIE AND RAIL FASTENER.
APPLICATION FILED OCT. 11, 1911.

1,012,330.

Patented Dec. 19, 1911.



WITNESSES

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WALTER H. CRILLEY, OF SMITHTON, PENNSYLVANIA.

METALLIC TIE AND RAIL-FASTENER.

1,012,330.

Specification of Letters Patent.

Patented Dec. 19, 1911.

Application filed October 11, 1911. Serial No. 654,190.

To all whom it may concern:

Be it known that I, WALTER H. CRILLEY, a citizen of the United States of America, residing at Smithton, in the county of Westmoreland and State of Pennsylvania, have invented certain new and useful Improvements in Metallic Ties and Rail-Fasteners, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to metallic ties and rail fasteners, and the primary object of my invention is to furnish a tie of the I-beam construction with novel fasteners for retaining rails thereon and in alignment to preserve the gage of a track.

Another object of this invention is to provide fasteners that allow for the expansion and contraction of rails and insure a positive fastening of rails without resorting to a complicated construction or a construction that is liable to injury by ordinary use.

A further object of this invention is to accomplish the above results by a mechanical construction that is durable, easy to install and highly efficient for the purposes for which it is intended.

With the above and other objects in view the invention resides in the novel construction, combination and arrangement of parts to be hereinafter specifically described and then claimed.

Reference will now be had to the drawing wherein:—

Figure 1 is a side elevation of the tie showing a rail mounted thereon. Fig. 2 is a plan of the same. Fig. 3 is a perspective view of a portion of the tie, and Fig. 4 is a perspective view of a detached fastener.

The reference numeral 1 denotes a tie of the I-beam construction having base flanges 2 and top flanges 3, said top flanges being of a greater depth than the base flanges 2. The top flanges 3, adjacent to the ends of the tie, are cut away to provide rail seats 4 and outer fasteners 5 adapted to extend over the outer base flanges 6 of rails 7 arranged upon the seats 4, these outer fasteners determining the gage of the track. The top flanges 3 at the inner edges of the seats 4 are further cut away to provide inner fastener seats 8 and tongue ways 9. The outer

edges of the seats 8 and the tongue-ways 9 are straight, while the inner edges of the seats 8 are beveled toward the center of the tie to provide inclined beveled walls 10.

Detachably mounted upon the seats 8 are inner fasteners 11, said fasteners having the inner ends thereof beveled, as at 12 to engage the walls 10, and the outer ends of said fasteners extend over the inner base flanges 13 of the rails 7 and are straight. The fasteners have depending tongues 14 extending into tongue-ways 9, said tongue being angularly disposed to protrude under the inner flanges 13 of the rails 7. The fasteners 11 are connected together by a transverse bolt 15 and a nut 16, said bolt drawing the fasteners toward the longitudinal axis of the tie whereby said fasteners will have a wedging action that tends to bind said fasteners between the inner flanges 13 and the walls 10, with the tongues 14 preventing vertical displacement of said fasteners.

It is apparent from the foregoing that the inner fasteners can be easily and quickly assembled upon the tie to rigidly hold the rails thereon, said fasteners not interfering with the tamping or placing of the tie in the ballast of a road bed.

What I claim is:—

1. In a metallic tie and rail fastener, the combination with rails, of a tie of the I-beam construction having the top flanges cut away to provide seats for said rails and outer fasteners engaging the outer flanges of said rails, the top of said tie being further cut away to provide an inner fastener seat and tongue-ways, with said fastener seats presenting inclined beveled walls, inner fasteners mounted upon said seats and having a wedging action between the inner flanges of said rails and the walls of said seats, tongues carried by said fasteners and extending into said tongue-way under the inner flanges of said rails, and means arranged transversely of said inner fasteners for retaining said fasteners upon the seats of said tie.

2. In a metallic tie and rail fastener, the combination with rails, of a tie of the I-beam construction having the top thereof provided with seats for said rails and outer fasteners to engage the outer base flanges of

said rails, the top of said tie being further cut away to provide seats for inner rail fasteners, inner rail fasteners arranged upon said seats and having a wedging action toward each other to bind said fasteners upon
5 said seats and against the inner base flanges of said rails, tongues carried by said fasteners and extending under the inner base

flanges to said rails, and bolts connecting said fasteners. 10

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

WALTER H. CRILLEY.

Witnesses:

WM. CRILLEY,

MAX H. SROLOVITZ.