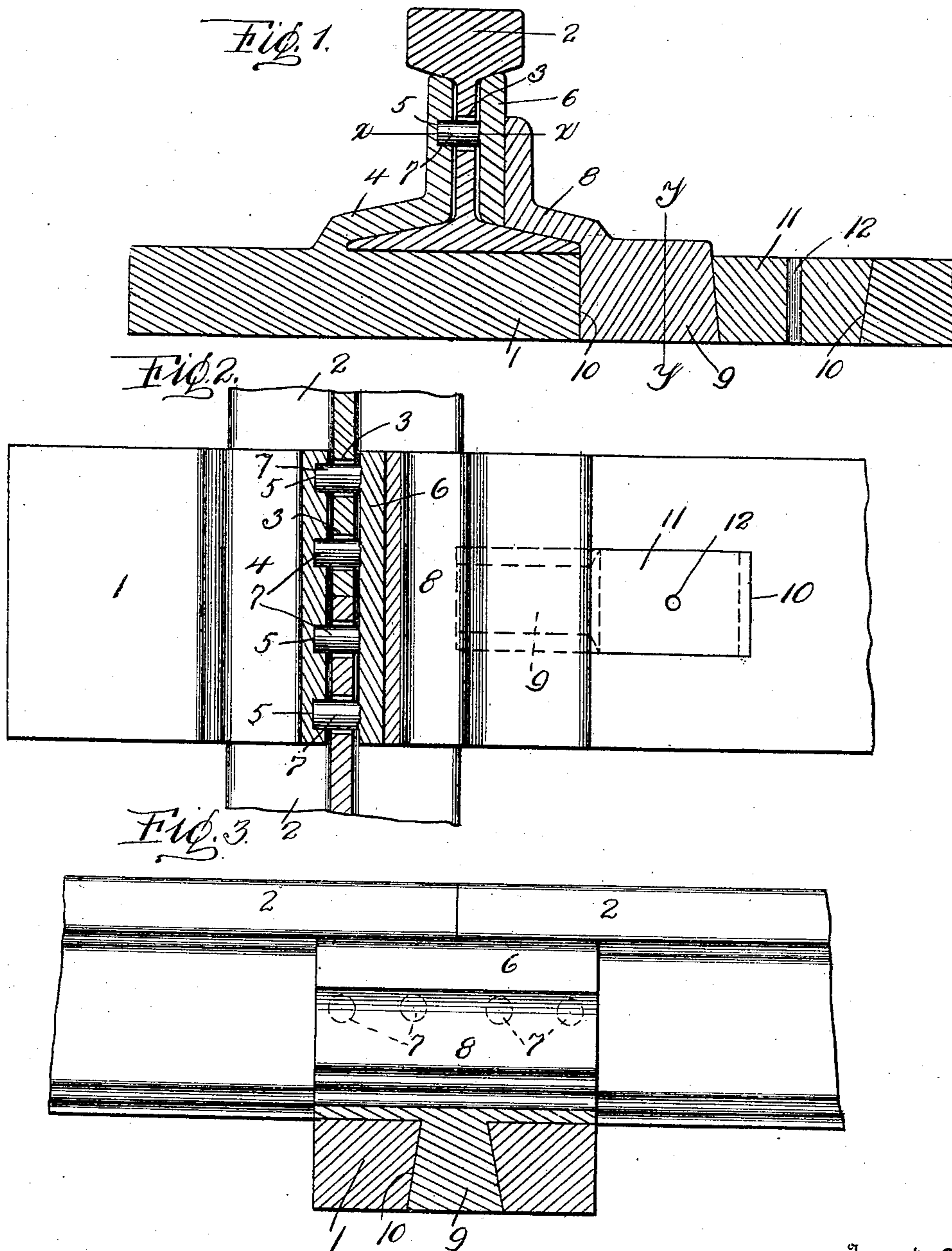


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METALLIC TIE AND RAIL JOINT.
APPLICATION FILED JAN. 28, 1908.

898,810.

Patented Sept. 15, 1908.



Witnesses

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UNITED STATES PATENT OFFICE.

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METALLIC TIE AND RAIL-JOINT.

No. 898,810.

Specification of Letters Patent.

Patented Sept. 15, 1908.

Application filed January 28, 1908. Serial No. 413,015.

To all whom it may concern:

Be it known that we, WILLIAM F. WILSON, residing at Jeannette, in the county of Westmoreland, and CHARLES K. BARNHART, residing at McKees Rocks, in the county of Allegheny, State of Pennsylvania, citizens of the United States, have invented certain new and useful Improvements in Metallic Ties and Rail-Joints, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to metallic ties and rail joints, and the objects of our invention are, first, to provide a strong and durable rail joint, wherein the use of nuts and bolts as a fastening means is dispensed with; second, to provide a rail joint wherein positive and reliable means are employed for holding the confronting ends of two rails, thereby preventing lateral and vertical displacement; third, to provide a simple, inexpensive and durable connection for rails that can be easily made without the use of skilled labor; and fourth, to provide a strong and durable metallic tie that will withstand the forces of nature and rough usage to which the same is subjected.

We attain the above objects by a construction that will be presently described and then specifically pointed out in the claims.

In the drawings: Figure 1 is a cross sectional view of our rail joint, Fig. 2 is a horizontal sectional view taken on the line $x-x$ of Fig. 1, and Fig. 3 is a cross sectional view taken on the line $y-y$ of Fig. 1.

In the accompanying drawings, 1 designates a metallic tie for supporting the confronting ends of rails 2, said rails having their webs provided with openings 3.

Each end of the tie is formed with an integral splice bar 4 adapted to brace the outer sides of the rails 2. These splice bars are formed with recesses 5 adapted to register with the openings 3 of the rails 2.

The inner sides of the rails 2 are connected by a movable splice bar 6 having pins 7 adapted to extend through the openings 3 of the rails 2 and engage in the recesses 7' of the integral splice bar 4.

The movable splice bar 6 is held in engagement with the inner sides of the rails 2 by a brace 8, this brace having a depending dove-tailed tongue 9 adapted to fit in the dove-tailed slot 10 provided therefor in the

tie 1. The inner end of the slot 10 corresponds in width to the lower edges of the dove-tailed portion of said slot, whereby the tongue can be placed in the inner portion of the slot 10 and then moved to engage in the dove-tailed portion thereof. To retain the brace 8 in engagement with the splice bar 6, we use a wedge-shaped block 11, this block being placed in the slot 10 after the tongue 9 has been placed in position. The block 11 is provided with a suitable opening 12, for the reception of a suitable instrument (not shown) that can be employed for removing the block at any time.

It will be observed that we have devised a strong and durable metallic tie wherein a novel fastener is employed for retaining the rails thereon. It will of course be understood that both ends of the tie are constructed alike, with the integral splice bars bracing the outer sides of the rails, this construction being preferable upon curves, where the rails are subjected to an outward pressure.

We reserve the right to make such structural changes in our invention as are permissible by the appended claims.

Having now described our invention what we claim as new, is:—

1. The combination with rails, of a metallic tie for supporting said rails, said tie having slots formed therein, a portion of each of said slots being inclined, integral splice bars carried by said tie for bracing the outer sides of said rails, said splice bars having recesses in their inner faces, movable splice bars fitting against the inner sides of said rails, pins carried thereby and adapted to extend through said rails into the recesses in said integral splice bars, braces engaging said movable splice bars, inclined tongues integral with said braces and adapted to engage in the inclined portions of said slots in the tie and of a thickness equal to the thickness of the tie and tapering blocks fitting in the slots and engaging the inner ends of the tongues for holding said tongues in the slots, said blocks having openings formed therein, substantially as described.

2. The combination with rails, of a metallic tie for supporting said rails, said tie having slots formed therein, a portion of each of said slots having inclined walls, integral splice bars carried by said tie for bracing the outer sides of said rails, said splice bars hav-

ing recesses in their inner faces, movable
splice bars fitting upon the inner sides of
said rails, pins carried thereby and adapted
to extend through said rails into the recesses
5 in said integral splice bars, braces for engag-
ing said movable splice bars, inclined tongues
carried by said braces and engaging the in-
clined walls of said slots, and means mounted
in the inner portions of said slots and engag-
10 ing the inner ends of said tongues to retain

the latter in the inclined portions of the slots,
substantially as described.

In testimony whereof we affix our signa-
tures in the presence of two witnesses.

WILLIAM F. WILSON.

CHARLES K. BARNHART.

Witnesses:

K. H. BUTLER,

MAX H. SROLOVITZ.