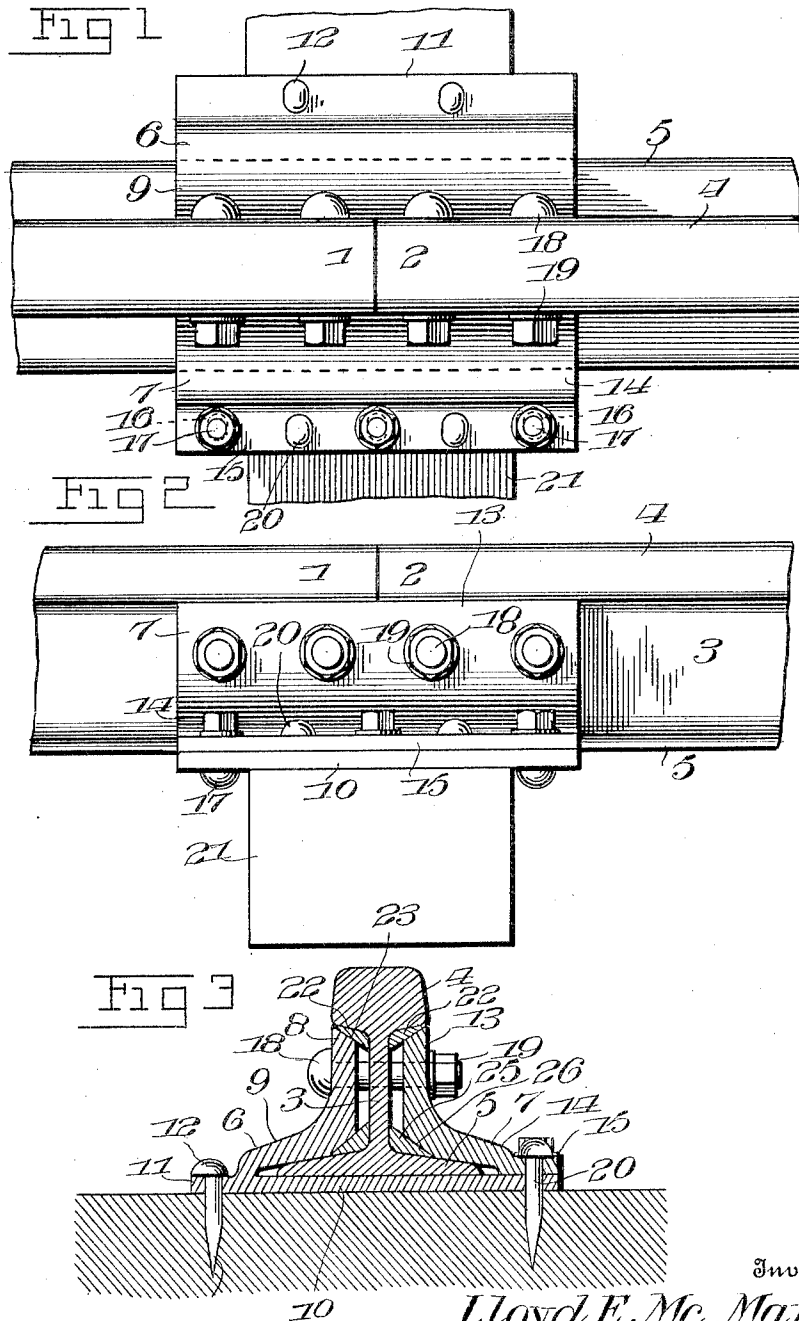


L. E. McMANUS.
RAIL JOINT.
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1,068,356.

Patented July 22, 1913.



Witnesses

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RAIL-JOINT.

1,068,356.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, LLOYD E. McMANUS, a citizen of the United States, residing at Decatur, in the county of Macon and State of Illinois, have invented new and useful Improvements in Rail-Joints, of which the following is a specification.

This invention relates to rail joints, the object in view being to provide a pair of rail clamping members, so related to each other and to the rail ends and combined with wedge-shaped shims, that when the clamping bolts are tightened, close supporting contact is maintained between the clamping bars, shims and the rail ends, so as to thoroughly brace the rails at the points and avoid any possibility of depression of the same under the load of a train passing over the same.

A further object of the invention is to provide means whereby any lost motion between the clamping members and the rail ends may be readily and amply taken up.

With the above and other objects in view, the invention consists in the construction, combination and arrangement of parts, as will be hereinafter more fully described, illustrated in the accompanying drawings, and pointed out in the claim hereunto appended.

In the drawings: Figure 1 is a plan view of a rail joint embodying the present invention. Fig. 2 is a side elevation of the same. Fig. 3 is a cross section through the rail joint.

Referring to the drawings, 1 and 2 designate rail ends, each of which embodies a central web 3, a head 4, and a base 5, said parts being of the usual construction and arrangement.

In carrying out the present invention, I provide oppositely arranged clamping members 6 and 7. The member 6 embodies an integral splice bar 8, and a base engaging flange 9, and in addition thereto, said chair has formed integrally therewith a base plate 10 which extends under the rail ends, as shown in Fig. 3, so as to project at opposite sides beyond the base flanges of the rail. The member 6 is also provided with an outwardly extending base flange 11 provided with notches or openings to receive the usual spikes 12, by means of which the

member is securely fastened to the tie upon which it rests. The other member 7 is also provided with an integral splice bar 13, and base flange 14, which bears against the corresponding flange of the rail, as shown in Fig. 3, and the lower side edge thereof is extended, as shown at 15, and formed with slots 16 to receive bolts 17 which pass also through holes in the extended end of the base plate 10, whereby the two members are firmly bolted together, after they have been properly adjusted and clamped against the rails by means of the usual bolts 18 and nuts 19. The end portions of the members, where they are bolted together at 17, are also notched or provided with openings to receive the usual spikes 20, by means of which the two members are fastened at several points to the underlying ties, one of which is shown at 21.

In each of the corners formed by the junction of the rail head 4 with the web 3, a shim strip 22 is inserted, said shim being substantially wedge-shaped in cross section or provided on its under side with a beveled face 23, against which the correspondingly beveled or upper edge of the adjacent splice bar rides. In like manner, shim strips 25 of corresponding shape are fitted in the angles between the web 3 and the base 5 of the rail, and cooperate with correspondingly beveled lower faces 26 at the bottom of the splice bar portions of the members.

It will now be observed that when the clamping bolts 18 are tightened, the splice bar portions of the members are drawn inward toward the web of the rail and ride upon the reversely inclined faces of the shim strips, thereby establishing a firm supporting connection between the members and the rail ends. Should any wear occur, it may be readily taken up by retightening the clamping bolts 18, and after said bolts have been tightened to the desired extent, the bolts 17 which connect the members together at one side of the rail ends are tightened, thus making the joint as a whole doubly secure.

What is claimed is:

The combination with the meeting ends of railway rails, of oppositely arranged members embodying splice bars having reversely beveled top and bottom faces, one of said members embodying an integral base plate

extending under the rail ends and the other member having a transversely slotted base flange bolted to said base plate, shim strips of wedge-shape in cross section disposed in the angles at the top and bottom of the rail webs and having beveled faces against which the beveled faces of the splice bars ride and act to spread said shims away from each

other in vertical planes, and bolts connecting the splice bars to the rails.

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

LLOYD E. McMANUS.

Witnesses:

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