Nov. 8, 1932. T. S. THOMAS 1,887,252

RAILROAD RAIL JOINT BRIDGE

Filed June 22, 1931

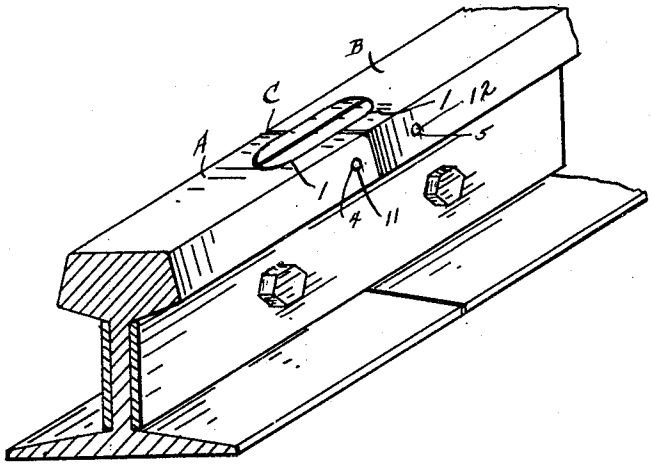


Fig. 1.

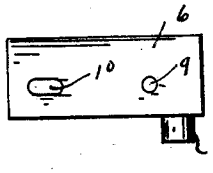


Fig. 2.



Fig. 5.

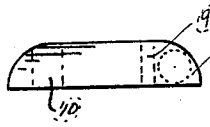


Fig. 3.

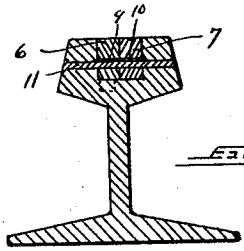


Fig. 6.

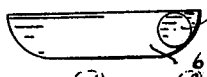


Fig. 4.

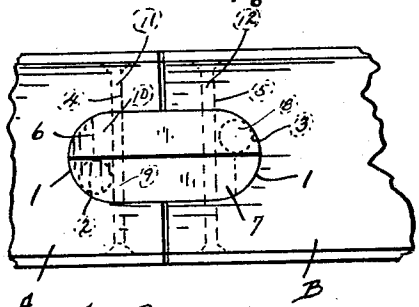


Fig. 7.

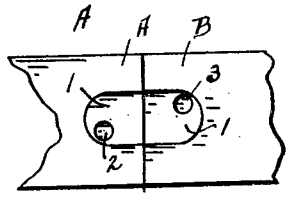


Fig. 8.

Inventor

Thomas S. Thomas

By P. M. Thomas

Attorney

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UNITED STATES PATENT OFFICE

THOMAS S. THOMAS, OF MALAD, IDAHO

RAILROAD RAIL JOINT BRIDGE

Application filed June 22, 1931. Serial No. 545,976.

My invention relates to railroad rails and has for its object to provide a new and efficient bridge for rail joints, which bridge will smooth out the joint, making the wheels pass thereover without noise or vibration.

A further object is to provide a smooth rail joint which will save the road bed, the ends of the rails, the ties and the wear and tear on the wheels of the rolling stock, by taking out the joint vibration and by smoothing out the joint so that there will be no jar as the wheels pass over the joint.

A still further object is to provide a rail joint which will be so bridged as to take the vibration out of the rolling stock passing thereover, making the engines pull more load for the same amount of power expended and making the engines and rolling stock last longer and do more efficient work.

A still further object is to provide a rail joint bridge which when used on bridges will take out the vibration of the rails thereby making it possible to run the train over the bridge more swiftly with less danger than is now possible.

A still further object is to provide a rail joint which will keep the rails in alignment, and at the same time allow for expansion and contraction of the rails due to weather conditions.

These objects I accomplish with the device illustrated in the accompanying drawing in which similar numerals and letters of reference indicate like parts throughout the several views and as described in the specification forming a part of this application and pointed out in the appended claims.

In the drawing in which I have shown the best and most preferred manner of building my invention

Figure 1 is a perspective view of a portion of a rail joint showing my joint bridge in place therein.

Figure 2 is a side elevation of the abutting face of the half of the bridge.

Figure 3 is a plan view of Figure 2.

Figure 4 is an inverted plan view of Figure 2.

Figure 5 is an end view of one half of the bridge.

Figure 6 is a section through the rail showing the cut through the bridge and one rivet holding the bridge in place.

Figure 7 is a plan view of the rail joint with my double bridge in place, dotted lines to indicate the rivets, holding the bridge in place and the holes through the bridge as well as the position of the retaining plugs at one end of each bridge section.

Figure 8 is a smaller plan view of the ends of the rail with the bridge removed.

In the drawing I have shown one rail as A, and the other rail as B, joined together at C. Into the top side of each rail adjacent the end thereof and in alignment with each other, I then cut openings or sockets 1 which will be shaped as desired, that being shown is with rounded ends. Into the bottom of the opening on one side I bore a small hole 2 and into the other rail I bore a similar hole 3 on the opposite side of the opening. I then bore a cross rivet hole 4 through the rail A and a similar rivet hole 5 through the rail B. The rails are then ready to receive my bridge. The bridge consists of opposed identical complementary bridge blocks 6 and 7 being all made alike. Each block is provided with a depending lug 8 thereon adapted to fit into the holes 2 and 3. The lugs 8 are formed on the under side of the said block adjacent one end thereof. The block 6 is inserted into one side of the two openings 1 filling one half of each opening and extending from one rail to the other, bridging the joint between the rails, and the block 7 likewise inserted into the other side of the openings 1 with the ends of the blocks reversed so that the lugs 8 fit into the holes 2 and 3.

Each block is bored transversely at 9 to provide a securing rivet hole and has a transverse elongated slot 10 to receive the securing rivet of the opposite block. Rivets 11 and 12 are then passed through the holes 4 and 5 in the ends of the rails and through the holes 9 and 10 in the blocks locking the blocks in position in the openings.

The rivets pass through the holes in the rail through one hole 9 in one block and then through the other hole 10 in the other opposed block so that the rivet holds one end of the block from movement, but allows the other

block to slide thereon the necessary amount for expansion and contraction of the joint.

The lugs hold the blocks from longitudinal movement in the rail with which they are to expand and contract. The rivets are slightly smaller in diameter than the holes 9 to allow for some degree of play so that the blocks are not rigidly locked to the rail ends.

Having thus described my invention I desire to secure by Letters Patent and claim:

1. In a rail joint bridge the combination of a set of complementary blocks carried in elongated openings in the top side of the ends of each rail said blocks bridging the joint of the rails; and means to hold each of said blocks in fixed longitudinal relation to one end of the abutting rails.

2. In a rail joint bridge the combination of a set of blocks carried in an elongated opening formed in the abutting ends of the rails, said blocks bridging the joint; a lug formed on the bottom of opposed ends of the respective blocks, said lugs set into holes in the openings of said rails; and rivets passed through the ends of each rail and the blocks, to hold the blocks in position, said rivets being carried in elongated openings in one end of said blocks to allow for expansion and contraction.

3. In a rail joint bridge the combination of sockets formed in the ends of the rails in alignment with each other; a block cut to fit into said sockets and longitudinally fill one half of the said openings with another similar block to fill the other half; a lug on one end of said blocks to fit into a hole in the bottom of the said sockets to lock one of said blocks to each rail section and to allow for expansion and contraction of the rails without changing the longitudinally relative positions of the blocks acting as the bridge.

In testimony whereof I have affixed my signature.

THOMAS S. THOMAS.