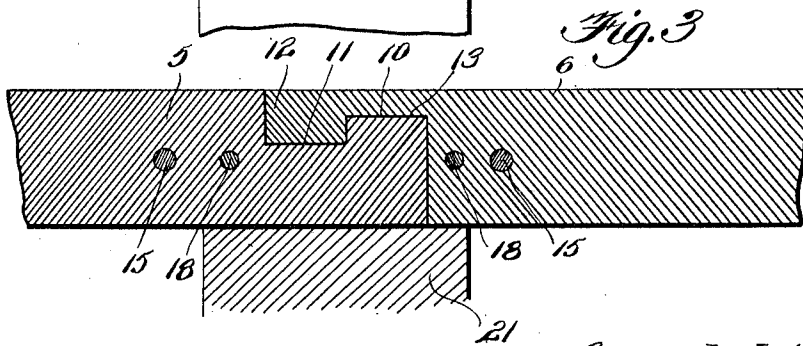
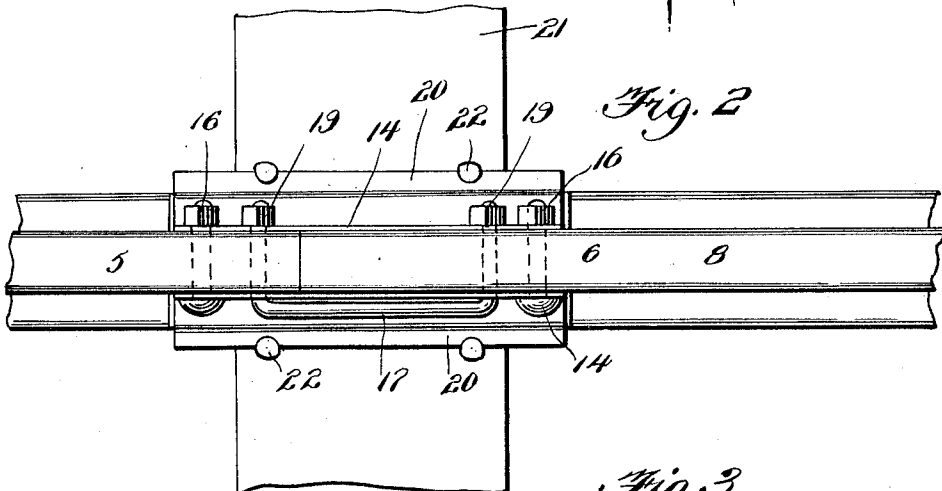
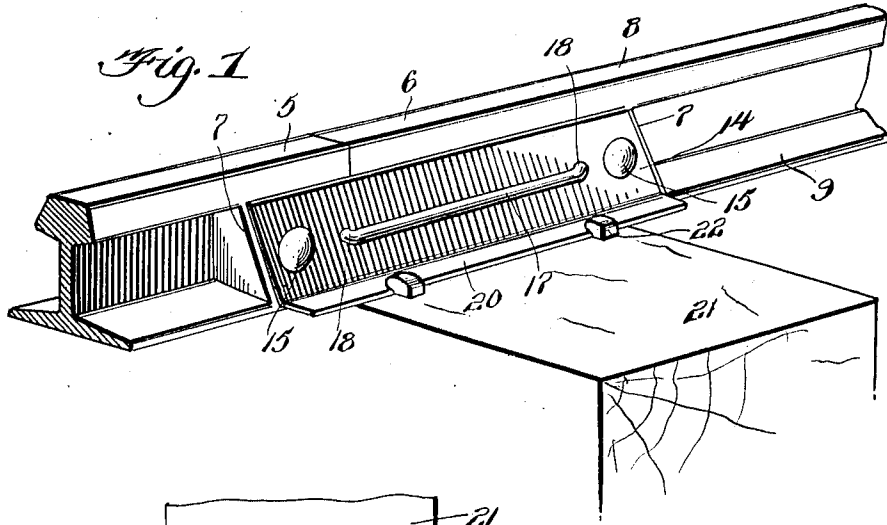


S. L. HARRIS.
RAIL JOINT.

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1,020,820.

Patented Mar. 19, 1912.



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RAIL-JOINT.

1,020,820.

Specification of Letters Patent. Patented Mar. 19, 1912.

Application filed May 17, 1911. Serial No. 627,733.

To all whom it may concern:

Be it known that I, SAMUEL L. HARRIS, citizen of the United States, residing at Knoxville, in the county of Knox and State of Tennessee, have invented new and useful Improvements in Rail-Joints, of which the following is a specification.

The objects of the invention are to prevent displacement of the meeting ends of rails and to eliminate the noise and the jars which are produced while the car wheels are passing thereover.

The above and other objects will appear and be better understood from the following description taken in connection with the accompanying drawings in which:

Figure 1 is a perspective view of a pair of meeting ends constructed in accordance with my invention and secured to the cross ties; Fig. 2 is a plan view; Fig. 3 is a detail vertical longitudinal sectional view.

The meeting ends 5 and 6 have thick end web portions 7 the opposite sides of which slant from the sides of the treads 8 to the base flanges 9. The thickened portion 7 of the end 5 is reduced in one dimension by removing a portion of the head and web as shown at 10 and is further reduced in the same dimension by a transverse recess 11 as shown. The end 6 is reduced and recessed as shown at 12 and 13 respectively to correspond to the reduced portion of the end 5. The reduced portion 12 of the end 6 snugly fits in the recess 11 of the end 5 and the recess 13 of the end 6 receives the reduced portion 10 of the end 5 as shown in Fig. 3 wherein it will be seen that when the ends are so arranged they will be interlocked and one end supporting the other whereby a substantially unitary structure is produced.

Referring to the drawing and more especially to Fig. 2 the treads 8 are coincident and in view of the structure just described the noise and jars produced when the wheels are passing over the juncture of the treads will be substantially eliminated.

The fish plates 14 are arranged on the opposite sides of the thickened portions 7 and

have openings to receive bolts 15 which pass therethrough and through the webs and which are secured by the nuts 16. The fish plates are additionally secured to the meeting ends and the latter further held against longitudinal or lateral movement by means of a tie bolt 17, the bent end portions 18 of which pass through alining openings in the fish plates and webs and are screw-threaded to engage the nuts 19. The lower side portions of the fish plates are out-turned to provide spike flanges 20 by means of which the structure is secured to the ties 21 by the spikes 22.

From the foregoing it will be observed that the parts may be readily unlocked and inter-locked whenever desired and in addition to the advantages already pointed out the danger of the rails spreading or otherwise becoming displaced will be prevented.

Although I have shown and described one form of my device it is to be understood that I am not to be limited to the structure shown and described, since various changes may be made within the scope of the appended claim without departing from the spirit of the invention.

What is claimed as new is:

In a rail joint, the combination of the meeting rail ends having portions of their webs thickened so that the outer faces of the thickened portions are coincident with the edges of the treads and base flanges one of said ends being reduced in height and recessed, and the other undercut and adapted to be received by the recessed portion of the first-named end, fish plates on the opposite faces of the thickened portions, and U-shaped bolts passing through said fish plates and thickened portions.

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

SAMUEL L. HARRIS.

Witnesses:

WM. C. DENTON,
MATIE ATTIX,
ANNE J. ATTIX,
D. M. JACKSON.