E. C. WILEY.

RAIL JOINT.

APPLICATION FILED MAR. 18, 1913.

1,081,878. Patented Dec. 16, 1913.

Fig. 1.

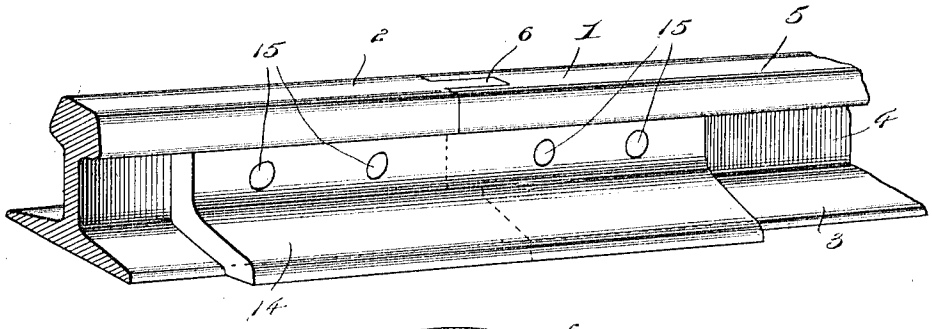


Fig. 2.

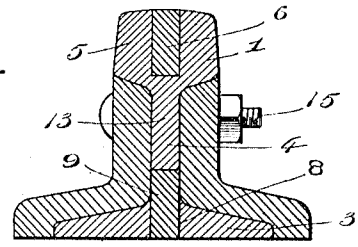


Fig. 3.

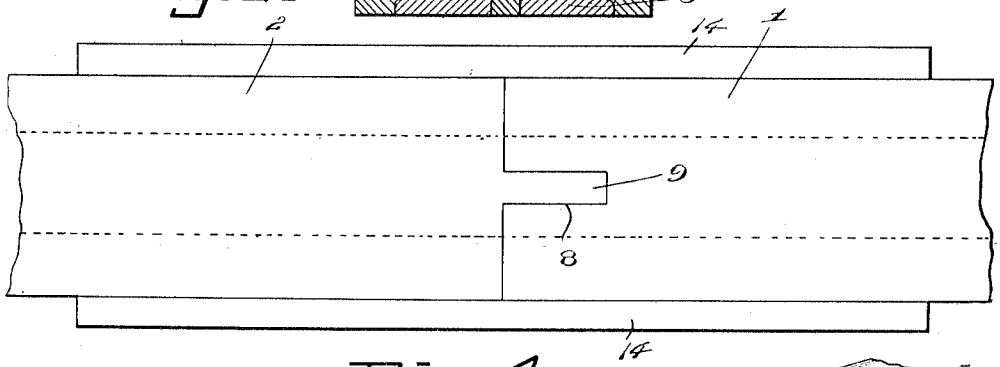
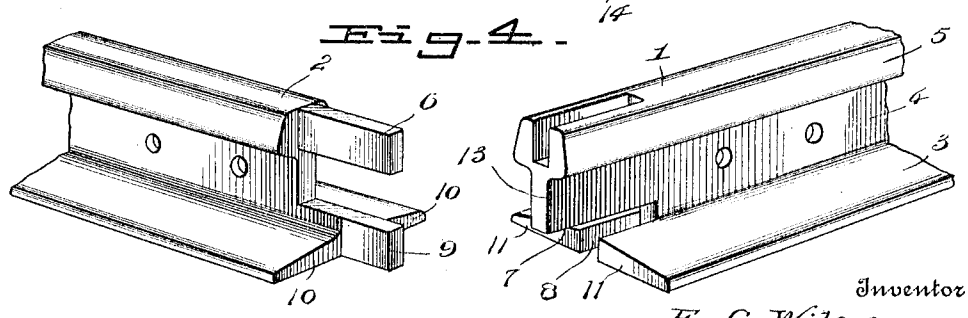


Fig. 4.



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RAIL-JOINT.

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To all whom it may concern:

Be it known that I, ED. C. WILEY, a citizen of the United States, residing at Nogo, in the county of Pope and State of Arkansas, 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 novel form of scarf joint for the meeting ends of railroad rails, which will amply sustain the joint in a vertical or horizontal direction, thereby relieving to a large extent the stress which is ordinarily thrown upon the usual splice bars or fish plates.

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 perspective view of a rail joint, embodying the present invention. Fig. 2 is a vertical transverse section through the joint. Fig. 3 is a bottom plan view thereof. Fig. 4 is a perspective view of the rail ends separated.

Referring to the drawings, 1 and 2 designate contiguous rail ends, which are scarf jointed together, in a manner which will hereinafter appear. The rail end 1 comprises the usual base flange 3, web 4, and head 5, and in carrying out the present invention, this rail end is provided, in the head thereof, with a mortise, extending from the extremity of the rail, inward a suitable distance to receive a tenon 6 of corresponding length and dimensions, formed integral with the end of the other rail 2. The rail 1 has its abutting end cut away, as shown at 7, by removing a portion of the base flange of the rail, and also a portion of the web thereof. In the bottom of the rail 1, the latter is provided with another mortise 8 which is of less length than the top mortise, and adapted to receive a bottom tenon 9 of a corresponding length formed on the contiguous end of the other rail 2. The tenon 9 of the rail 2 is formed by cutting away the base flange of the rail at opposite sides of the same, and this results in the production of transverse shoulders 10 which abut against other transverse shoulders 11, formed by cutting away the under part of the rail 1.

In forming the different parts of the scarf joint, hereinabove described, an intervening wall 13 is left between the top and bottom mortises, which wall is straddled by the top and bottom tenons 6 and 9, which prevents any relative vertical movement between the rail ends. Furthermore by the interfitting tenons and mortises, any relative lateral movement of the rail ends is prevented. The result is that the rail ends are firmly connected together, so as to prevent any relative lateral or vertical movement, while at the same time providing for the necessary expansion and contraction, due to changes in the weather.

In connection with the rail joint, hereinabove described, the usual splice bars or fish plates 14 may be used in connection with the fastening bolts 15.

What is claimed is:

In a rail joint, two rail ends, one of which is provided with top and bottom mortises of unequal length separated by an intervening wall formed by the web of one of the rail ends, the bottom mortise extending vertically through the base of the rail end and into the web, the other rail end being provided with top and bottom tenons of unequal length but corresponding with the lengths of said mortises, the base flange of the last named section being cut away at opposite sides to form the bottom tenon which projects above the base flanges, and transverse shoulders located in a vertical plane intermediate the length of the top tenon.

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

ED. C. WILEY.

Witnesses:
JOSIE BELL,
C. C. BELL.