W. F. RUTLAND, Sr.

RAIL SPLICE.

APPLICATION FILED JUNE 14, 1910.

972,927.

Patented Oct. 18, 1910.

Fig. 1.

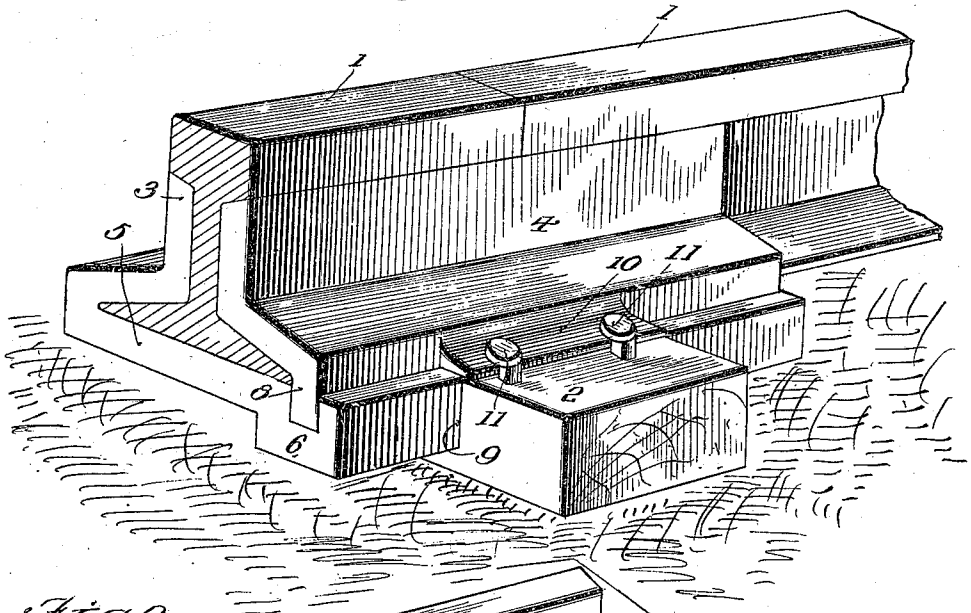


Fig. 2.

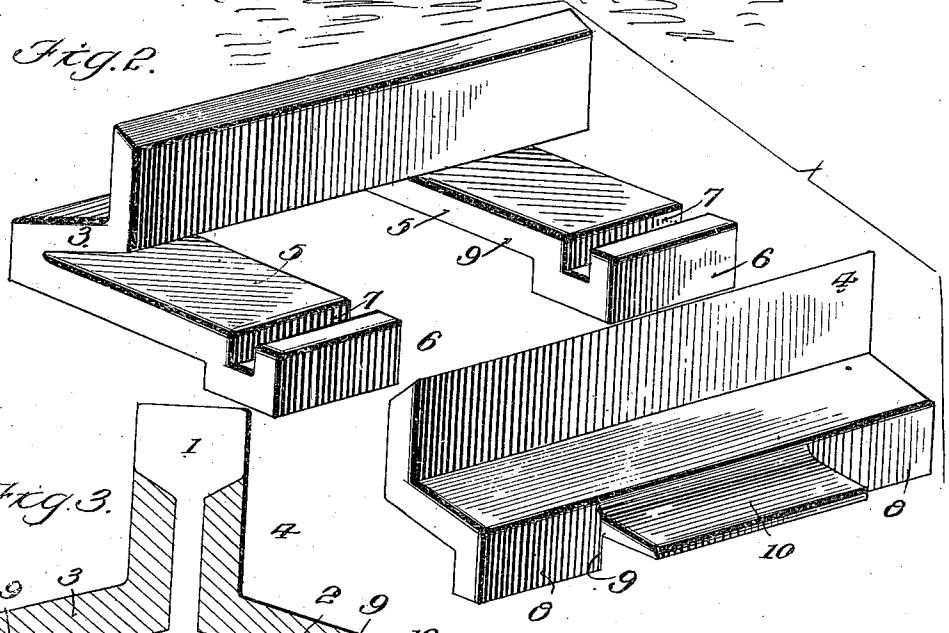
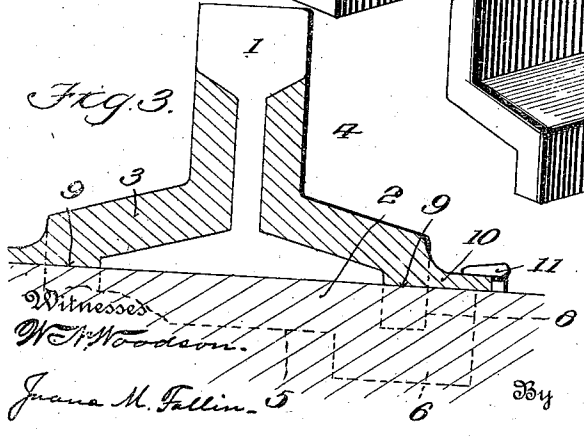


Fig. 3.



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UNITED STATES PATENT OFFICE.

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RAIL-SPLICE.

972,927. Specification of Letters Patent. Patented Oct. 18, 1910.

Application filed June 14, 1910. Serial No. 566,803.

To all whom it may concern:

Be it known that I, WILLIAM F. RUTLAND, Sr., citizen of the United States, residing at Rion, in the county of Fairfield and State of South Carolina, have invented certain new and useful Improvements in Rail-Splices, of which the following is a specification.

The present invention comprehends certain new and useful improvements in track equipment for railways, and the invention has for its object an improved rail splice which effectually holds the meeting ends of the rails in longitudinal alinement and which further supports said rail ends and prevents the same from being depressed, whereby to obviate the disagreeable pounding of the wheels of the rolling stock at the joint.

A further object of the invention is a device of this character which serves to rigidly secure the rails to the tie, and which is susceptible of being easily and quickly applied to the rails and requires no subsequent attention, thus reducing to a minimum the cost of construction and maintenance of the track.

With these and other objects in view that will more fully appear as the description proceeds, the invention consists in certain constructions and arrangements of the parts that I shall hereinafter fully describe and then point out the novel features of in the appended claims.

For a full understanding of the invention and the merits thereof and also to acquire a knowledge of the details of construction, reference is to be had to the following description and accompanying drawing, in which:

Figure 1 is a sectional perspective view illustrating the application of my improved rail splice; Fig. 2 is a perspective view showing the parts of the splice in juxtaposition; and, Fig. 3 is a transverse section.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawing by the same reference characters.

For the purpose of illustration my invention is shown and described as applied to the meeting ends of a pair of companion rail sections 1, which are of the usual form, although not necessarily so. The ends of these rail sections rest upon and meet above a conventional wooden tie 2. The rail splice consists essentially of two complemental splice bars designated 3 and 4 respectively. The splice bars fit against opposite sides of the rail sections and span the joint. Each splice bar conforms to the contour of the proximate side of the rail sections so as to extend over the base flanges thereof and to lie against the webs with its upper edge fitting snugly under overhanging portions of the heads. In the present instance the splice bar 3 is somewhat thicker and heavier than the other splice bar and is located at the outer side of the rail.

The splice bar 3 is formed with a pair of base plates or straps 5 that extend transversely beneath the rail sections with their extremities projecting beyond the side thereof adjacent to the splice bar 4. The base plates are provided in their projecting extremities with sockets or grooves 7 that are disposed in the direction of the length of the rail and are flush with the adjacent edge thereof. The sockets are preferably formed by bending the projecting extremities of the base plates so as to constitute upwardly facing hooks 6. The sockets receive a pair of tongues 8 which depend substantially vertically from the lower edge of the splice bar 4, the side walls of the sockets being substantially parallel and the tongues being polygonal in cross sections and fitting snugly within the sockets so as to be held against turning movement therein.

The base plates 5 and the tongues 8 are spaced apart longitudinally in order to provide intermediate seating recesses 9 for the reception of the upper portion of the cross tie 2. The adjacent extremities of the rail sections are thus permitted to rest directly upon the wooden cross tie between the base plates 5, as is manifestly desirable in practice. Flanges 10 outstand from the lower edges of the splice bars 4 between the base plates 5 and the tongues 8, the flanges being arranged to rest upon the tie to provide a relatively broad bearing thereon and thus assist in maintaining the rail against possible lateral tilting movement, as is liable to occur on curves. Spikes 11 are driven into the tie with their heads taking over the flanges 10 and serve to fasten the splice bars rigidly to the tie. It will be noted that the provision of the flanges enables the spikes to be driven well into the tie and permits them to be positioned in close proximity to the joint, so that they are considerably more effective.

From the foregoing description in connection with the accompanying drawings, it will be apparent that I have provided an improved rail splice in which the complemental splice bars are held firmly against opposite sides of the rail sections, without the use of the customary bolts which have been found so objectionable in practice. The splice bar 4 fits under the heads of the rail sections, and is also firmly spiked to the tie, and hence is positively prevented from being lifted out of engagement with the hooks 6. As the cross tie 2 fits in the seating recesses 9, the splice bars are, of course, held against relative longitudinal movement. The tongues 8 are, therefore, retained in interlocking engagement with the base plates under all conditions. Inasmuch as no fastening devices are passed through the meeting ends of the rail sections to connect the splice bars, it will be seen that the rail sections are afforded independent longitudinal movement between the splice bars to compensate for expansion and contraction. The removal of the splice from the rail sections may be easily and quickly effected when occasion requires. It is merely necessary to extract the spikes 11 from the tie, and to pry the upper portion of the splice bar 4 laterally sufficiently to clear the heads of the rail sections. The splice bar 4 may be then lifted to withdraw the tongues 8 from the sockets 7, whereupon the separate splice bars may be removed from the rail. The splice is reapplied to the rail sections by reversing the above operation.

Having thus described the invention, what I claim is:

1. A rail splice including a pair of separate coacting splice bars, and base straps rigid with and extending laterally from one of the splice bars and formed at their extremities with hooks having an interlocking connection with the other splice bar, the base straps being spaced apart longitudinally to provide an intermediate seating recess for a cross tie.

2. A rail splice including a pair of separate coacting splice bars, base straps rigid with one of said splice bars, and tongues depending from the other splice bar and having an interlocking connection with the base straps, the base straps of the tongues being spaced apart longitudinally to provide intermediate seating recesses for the reception of a cross tie.

3. A rail splice including a pair of separate coacting splice bars, base straps rigid with and extending laterally from one of the splice bars and having an interlocking connection with the other splice bar, the base straps being spaced apart longitudinally to provide an intermediate seating recess for the reception of a cross tie, and flanges outstanding from the splice bars and adapted to bear upon the upper surface of the cross tie.

4. A rail splice including a pair of separate coacting splice bars, base straps rigid with and extending laterally from one of said splice bars, tongues depending from the other splice bar and having an interlocking connection with the base straps, the base straps and the tongues being spaced apart longitudinally to provide intermediate seating recesses for the reception of a cross tie, and flanges outstanding from the lower edges of the splice bars opposite said seating recesses and adapted to bear upon the upper surface of the tie.

5. A rail splice including a pair of separate coacting splice bars, a base plate rigid with and extending laterally from one of said splice bars and formed with a longitudinal socket, and a tongue provided on the other splice bar and adapted to be received in the socket, the socket and the tongue being correspondingly polygonal in cross section, whereby to hold the splice bars against relative turning movement.

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

WILLIAM F. RUTLAND, SR. [L. S.]

Witnesses:

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