G. HOLINKA.

RAIL JOINT.

APPLICATION FILED NOV. 24, 1913.

1,088,150. Patented Feb. 24, 1914.

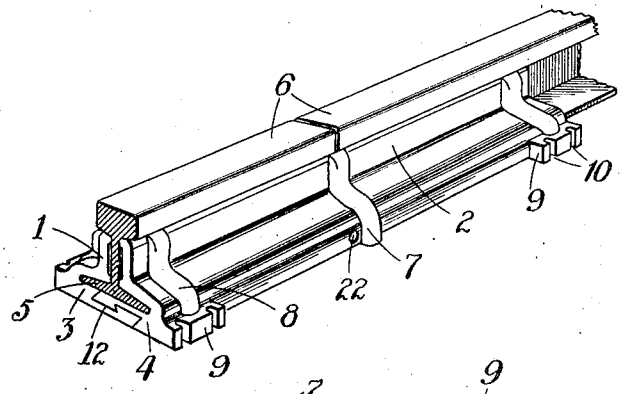


FIG. 1.

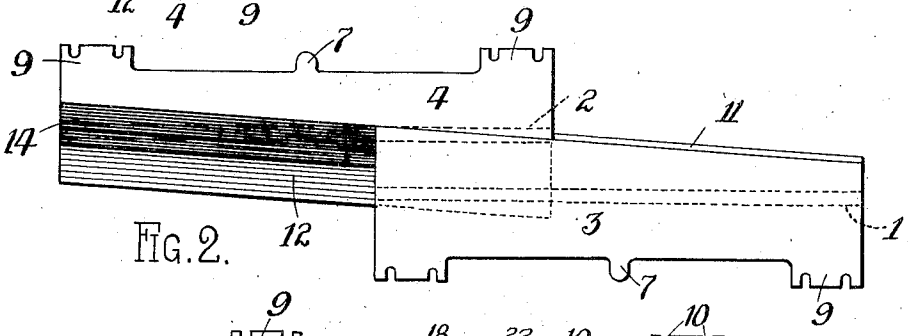


FIG. 2.

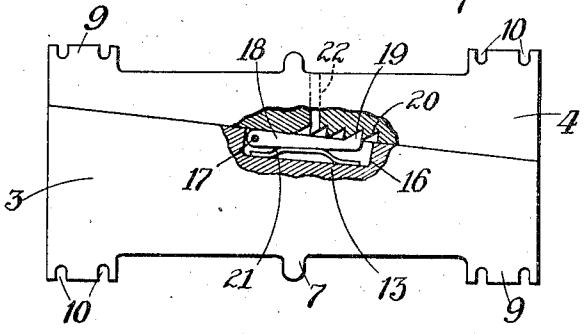


FIG. 3.

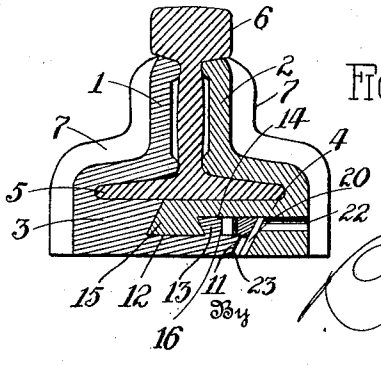


FIG. 4.

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UNITED STATES PATENT OFFICE.

GEORGE HOLINKA, OF DETROIT, MICHIGAN, ASSIGNOR OF ONE-FOURTH TO GEORGE GULYAS AND ONE-FOURTH TO GABOR GULYAS, BOTH OF DETROIT, MICHIGAN.

RAIL-JOINT.

1,088,150. Specification of Letters Patent. Patented Feb. 24, 1914.

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To all whom it may concern:

Be it known that I, GEORGE HOLINKA, a citizen of the United States of America, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Rail-Joints, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to rail joints, and the objects of my invention are to provide positive and reliable means, in a manner as hereinafter set forth, for connecting the confronting or abutting ends of rails without resorting to the use of nuts, bolts or similar fastening means, and to provide a rail joint wherein novel inter-locking splice bars are employed for preventing vertical and lateral displacement of rails.

Further objects of my invention are to provide a strong and durable joint capable of withstanding the great weight of rolling stock to which it is subjected, and to provide inter-locking bars with a novel concealed locking member that retains the splice bars in position to firmly brace the webs and heads of rails.

A still further object of this invention is to provide a rail joint consisting of comparatively few parts that can be easily and quickly assembled without the use of skilled labor.

I obtain the above objects by a mechanical construction that will be hereinafter specifically described and then claimed, and reference will now be had to the drawing, wherein,

Figure 1 is a perspective view of the rail joint; Fig. 2 is a bottom plan of the same showing the splice bars partly separated; Fig. 3 is a similar view showing the splice bars in a locked position and partly broken away to show the locking member, and Fig. 4 is an enlarged cross sectional view of the rail joint.

A rail joint in accordance with my invention comprises two inter-locking splice bars 1 and 2 having integral base plates 3 and 4 respectively adapted to support the base flanges 5 of rails 6. The outer sides of the splice bars 1 and 2 are reinforced by stiffening ribs 7 and 8, the ribs 8 being located adjacent to the ends of the splice bars and the ribs 7 intermediate the ends thereof, as best shown in Fig. 1. The splice bars 1 and 2, at the ends thereof, have lateral extensions 9 provided with spike notches 10 whereby the base plates 3 and 4 can be secured to ties or sleepers (not shown).

The base plate 3 tapers from one end thereof to the opposite end and the inner edge of said base plate is beveled, as at 11. The top of the base plate is provided with a dove-tail groove 12 extending from one end thereof to the opposite end, said groove having its walls arranged in parallelism with the beveled outer edge of the base plate. The inner wall of the groove 12 is therefore disposed at an angle to the outer edge of the base plate 3 and the material between the outer wall of the groove 12 and the beveled edge of said base plate forms a dove-tail tongue 13, the object of which will presently appear. The groove 12 is approximately two thirds of the depth of the base plate 3 and the outer wall of the groove 12 is one half the height of the inner wall with the tongue 13 two thirds the depth of the base plate. Now, in order that the base plate 4 can inter-lock with the base plate 3, the base plate 4 is made the reverse of the base plate 3, that is, the edge of the base plate 4 is tapered and beveled to correspond to the tapering beveled edge 11 and the base plate 4 is provided with a longitudinal dove-tail groove 14 and a depending dove-tail tongue 15, the groove 14 receiving the tongue 13, and the tongue 15 sliding in the groove 12. This construction necessitates placing the splice bars end to end and sliding the splice bar 2 lengthwise of the splice bar 1. The base plates 3 and 4 become inter-locked as the bars 1 and 2 assume a position opposite one another.

It is preferable when assembling the splice bars to place the end of one base plate in engagement with an end of the other base plate, then place the base flange of the rails 6 upon the base plates 3 and 4, then shift the rails longitudinally whereby the ends practically abut, and then by further shifting the splice bars relatively to the rails, said splice bars are gradually moved together to engage and brace the sides of the rails.

The confronting or abutting ends of the rails are preferably located intermediate the ends of the splice bars at the central reinforcing ribs 7.

Of course when the lateral extensions 9 of

the splice bars are spiked to ties or other supports, one splice bar cannot become longitudinally displaced relatively to the other, but for fear that the spikes should fail to properly hold the splice bars, I provide a concealed locking member, which is best shown in Figs. 3 and 4. The top of the tongue 13, at the outer edge thereof, and intermediate its ends, has an oblong recess 16 and pivotally mounted in said recess at one end thereof by a pin 17 or other pivotal means is a locking member or dog 18, which has the free end thereof provided with a tooth 19. The outer side of the tooth 19 and also the outer side of the member 18 are beveled to correspond to the beveled edge 11 of the base plate 3. This is best shown in Fig. 4, and the tooth 19 is adapted to engage teeth 20 formed in the inner wall of the groove 14. The teeth 20 are located intermediate the ends of the base plate 4 and said teeth correspond in depth to the inner wall of the groove 14, thus facilitating the formation of the teeth.

Located in the oblong recess 16 is a flat compression spring 21 and this spring holds the tooth 19 of the member 18 normally in engagement with the teeth 20 of the base plate 4, the tooth 19 engaging the upper ends of the teeth 20, as clearly shown in Fig. 4 of the drawing. When sliding the base plate 4 into engagement with the base plate 3, the tooth 19 recedes over the teeth 20 until the splice bars 1 and 2 are oppositely disposed and in snug engagement with the sides of the rails 6, at which time the tooth 19 properly seats and locks the splice bars against longitudinal displacement.

To permit of the rail joint being disassembled the base plate 4, intermediate the ends thereof, is provided with a lateral transverse opening 22 that terminates at one of the teeth 20. This opening permits of a rod or suitable instrument being inserted in the base plate 4 to shift the locking member 18 and move the tooth 19 thereof out of engagement with the teeth 20, thereby permitting of the base plate 4 being withdrawn from the base plate 3. Further access is had to the locking member 18 to shift the same through the medium of a groove 23 in the beveled edge 11 of the base plate 3. A suitable instrument can be inserted in the groove 23 to engage the outer beveled side of the locking member 18 and force said member into the recess 16. When it is inconvenient to use the groove 23 the opening 22 can be employed.

With the rail 6 in position the locking means between the inter-locking base plates 3 and 4 is concealed and protected from the forces of nature. With the base plates 3 and 4 separated easy access is had to the recess 16, thus permitting of the locking member 18 being properly positioned therein.

It is thought that the manner of assembling the rail joint will be apparent without further description, and while in the drawing there is illustrated a preferred embodiment of my invention, it is to be understood that the structural elements are susceptible of such variations and modifications as fall within the scope of the appended claim.

What I claim is:—

In a rail joint, the combination with rails, and splice bars bracing the sides of said rails, of base plates carried by said splice bars and supporting the base flanges of said rails, said base plates having tapering beveled contacting edges and each base plate having a dove-tail tongue and dove-tail groove whereby said base plates can be interlocked against lateral displacement, a pivoted locking member arranged in one of the tongues of said base plates adapted to lock said base plates against relative longitudinal movement, and means in connection with one of said base plates whereby easy access can be had to said member to shift the same and release said base plates.

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

GEORGE HOLINKA.

Witnesses:
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