

H. T. STEINECKE.
INTERLOCKING RAIL JOINT.
APPLICATION FILED MAY 31, 1905.

Fig. 1.

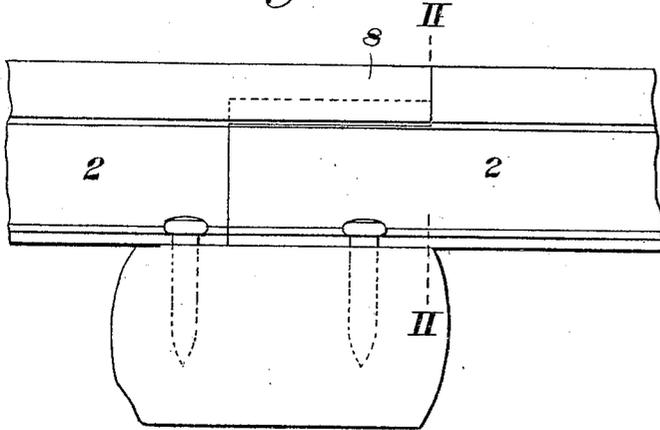


Fig. 2.

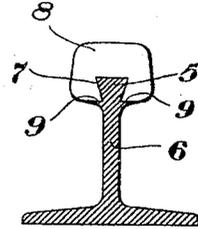


Fig. 4.

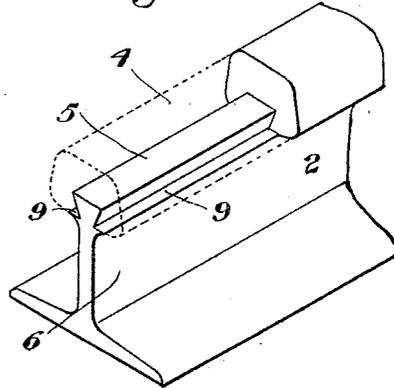


Fig. 3.

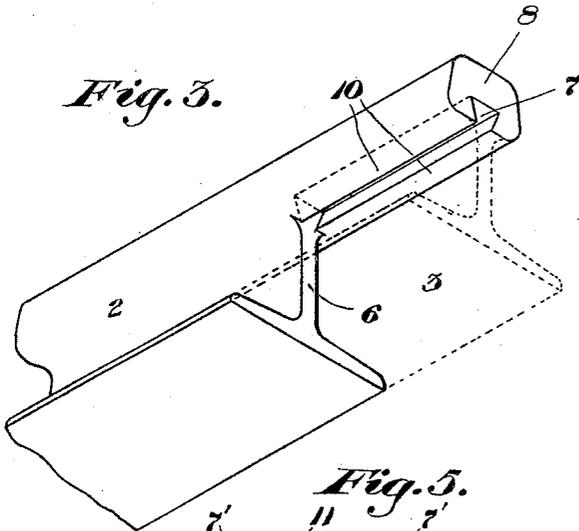


Fig. 5.

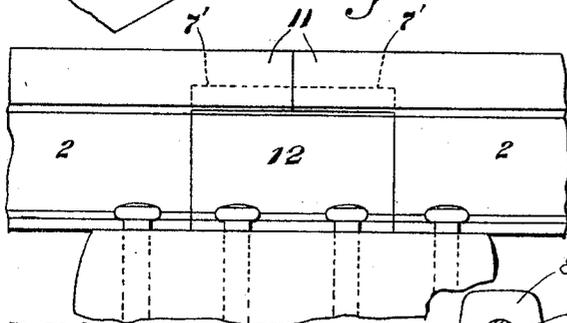
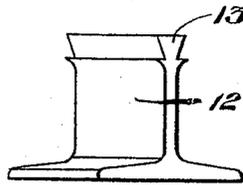


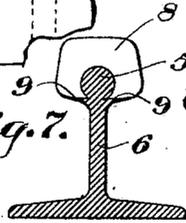
Fig. 6.



Witnesses:

B. R. Rodd.
Chas. S. Pepley

Fig. 7.



Inventor:

Norman J. Steinecke
by O. M. Clarke
his Attorney.

UNITED STATES PATENT OFFICE.

HERMAN T. STEINECKE, OF PITTSBURG, PENNSYLVANIA.

INTERLOCKING RAIL-JOINT.

No. 799,415.

Specification of Letters Patent.

Patented Sept. 12, 1905.

Application filed May 31, 1905. Serial No. 262,982.

To all whom it may concern:

Be it known that I, HERMAN T. STEINECKE, a citizen of the United States, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Interlocking Rail-Joints, of which the following is a specification, reference being had therein to the accompanying drawings, forming part of the specification, in which—

Figure 1 is a view in side elevation of my improved rail-joint. Fig. 2 is a cross-sectional view on the line II II of Fig. 1. Figs. 3 and 4 are perspective views of the meeting ends of adjacent rails. Fig. 5 is a view similar to Fig. 1, showing a modified construction. Fig. 6 is a detail view showing the interposed connecting member employed in the joint of Fig. 5. Fig. 7 is a view similar to Fig. 2, showing a modified construction.

My invention relates to improvements in rail-joints, and is designed to provide a strong, simple, and efficient joint without the use of the customary fish-plates and bolts, the meeting ends of the rails being so arranged as to interfit with each other by means of a locking extension of the web of one rail engaging a corresponding recess in the head of the other rail, both rails being partially cut away to provide suitable clearance and so constructed as to make a lap-joint and provide a practically continuous rail.

Referring to the drawings, 2 2 represent rails of standard cross-section, each of which is cut away by any suitable mechanism, as a milling-tool or saw, at each end to provide an extension of the head of one rail and an extension of the web and flanges of the other rail in the manner shown in the drawings, so as to provide a continuous track. Each rail-section is cut away at one end, removing those portions of the web and flanges indicated in dotted lines in Fig. 3 and providing an open space 3, while at the other end the head or the major portion of it (indicated in dotted lines in Fig. 4) is cut away, leaving the open space 4. By this construction it will be seen that the ends of adjacent rails will interfit with each other, each projecting portion of the head and base, respectively, occupying the corresponding cut-away space in the end of the rail with which it is connected. The central portion of the rail-head at one end is utilized as a key 5, being left intact and forming a continuation of the web 6, which key is adapted to interfit in corresponding cavity 7, formed in the middle

under portion of the extended rail-head 8, as shown in Fig. 3, when the rails are brought together. In the principal figures of the drawings I have shown this integral key extension as made in the form of a wedge, although it will be understood that any other suitable cross-section may be employed, as shown in Fig. 7, wherein the key is made in cylindrical form, as indicated at 5'. The sides of the web may be extended straight up to the base of the key, if it is desired, but are preferably continued out for a portion or all of the fillet forming the connection of the web with the rail-head, the web then being cut inwardly toward the base of the key, as indicated at 9, thereby providing flat abutting faces, the sides of the recess 7 being cut horizontally at a corresponding angle, as shown at 10, so as to abut squarely against the faces 9.

In Figs. 5 and 6 I have shown both rails cut out underneath the head, so as to remove portions of the webs and flanges, leaving the extended rail-heads 11 adapted to meet centrally, said heads being provided with recesses 7', while an additional connecting-section 12, having a corresponding interfitting key member 13, is embraced between the adjacent ends of the rails and within the cavity of each head, respectively, as clearly shown.

In both constructions the rails are merely spiked down to the ties at each side of the vertical joint, thereby securely holding them in position, the heads being practically integral and immovably connected when thus located. By this construction it will be seen that the rails are free to contract or expand and are not bound against such relative longitudinal movement should such occur, while providing a smooth continuous tread for the wheels.

What I claim is—

1. In a rail-joint, the combination of a rail having its flanges and web cut away vertically to provide abutting faces with an extended head portion having a central longitudinal dovetail recess, and an adjacent rail having its head cut away with extended flanges and web, the web having a longitudinal dovetail top edge arranged to interfit in the recess of the opposing rail-head, substantially as set forth.
2. In a rail-joint, the combination of abutting rails, one of said rails having its web and flanges cut away beneath the head to provide uniformly-vertical abutting faces, said head extending forwardly thereof and being provided with an undercut dovetail recess extending throughout its lower portion, the other

5 rail having a corresponding portion of its head removed and provided with a corresponding projecting web and flange portions, with an integral dovetail key extension formed by a portion of the head of the rail adapted to fit in the recess of the other rail, whereby the heads, webs and flanges of both rails make abutting contact in vertical planes, substantially as set forth.

10 3. The combination with abutting rails having their webs and flanges cut away underneath the head backwardly with under dovetail recesses formed in the extended head portions,

of a connecting-section constituting the web and flanges of a continuous rail when inserted in place and provided with an extended longitudinal dovetail-key arranged to interfit in the recesses of the abutting rail-heads, with means for securing the parts to a supporting-tie, substantially as set forth.

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

HERMAN T. STEINECKE,

Witnesses:

CHAS. S. LEPLEY,

C. M. CLARKE.