C. A. BAUDER.

RAILWAY JOINT.

APPLICATION FILED OCT. 6, 1909.

959,289. Patented May 24, 1910.

Fig. 1.

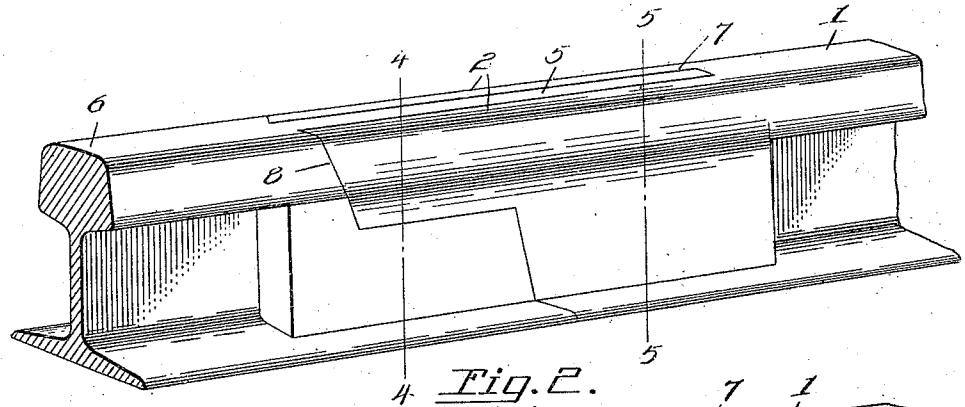


Fig. 2.

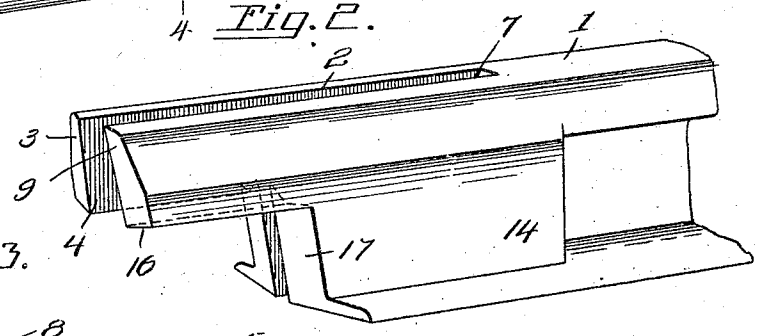


Fig. 3.

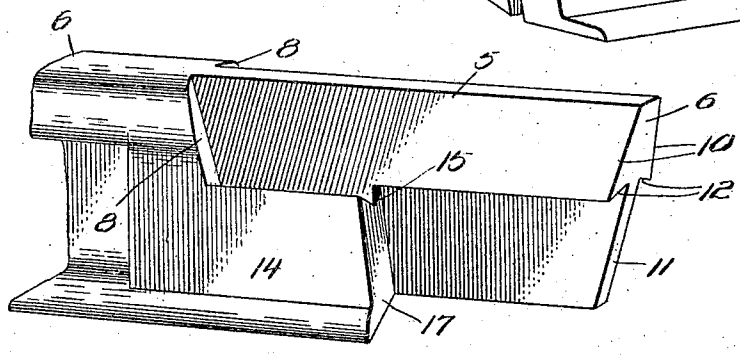


Fig. 4.

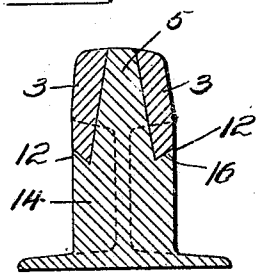
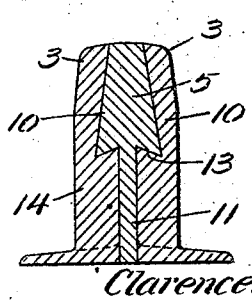


Fig. 5.



Witnesses

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CLARENCE A. BAUDER, OF HERRIN, ILLINOIS.

RAILWAY-JOINT.

959,289. Specification of Letters Patent. Patented May 24, 1910.

Application filed October 6, 1909. Serial No. 521,185.

To all whom it may concern:

Be it known that I, CLARENCE A. BAUDER, a citizen of the United States, residing at Herrin, in the county of Williamson and State of Illinois, have invented new and useful Improvements in Railway-Joints, of which the following is a specification.

My invention relates to certain new and useful improvements in railway joints and consists in the novel combination and arrangement of parts which will be hereinafter more particularly described and pointed out in the claims.

Referring to the drawings forming a part of the specification: Figure 1 is a perspective view of my invention showing the meeting ends of the rails properly united to form a continuous track. Fig. 2 is a perspective view of one end of one of the rails to be connected. Fig. 3 is a perspective view of the opposite end of the rail or that end which is adapted to coöperate or be connected with the end of the rail previously referred to. Fig. 4 is a vertical cross section taken on the line 4—4 of Fig. 1; and Fig. 5 is a similar perspective cross or transverse section taken on the line 5—5 of Fig. 1.

The object of my invention is to promote to a maximum degree the rigidity at the meeting points or connecting ends of the rails, whereby a continuous and practically uninterrupted rail is provided and is so constructed as to compensate itself to the rough usage to which the same is necessarily subjected, in which instance bolts and nuts or other suitable fastening device previously employed or used for connecting the meeting ends of the rails may be dispensed with, all of which will appear from the detailed description to follow.

One of the free or connecting ends of the rail 1 is provided with a longitudinal slot or groove 2 which extends from its end a suitable distance along its length, forming a fork 3, the said slot or groove having inner inclined smooth walls 4 which are adapted to freely but snugly receive the longitudinal tongue or projection 5 formed by suitably reducing the metal forming the opposite end of the rail 6 to be united, said tongue or extension being preferably of suitable dimensions in shape or contour to be received by the groove 2 formed in the opposite end of the rail to be connected. It will be noted in this connection that the upper surface of the tongue 5, forming one end of the rail will present a smooth and finished surface when properly located within the groove 2 of its connecting rail, whereby a continuous and uninterrupted tread portion is formed about or along the connecting ends of the rails.

The tongue 5 referred to is provided with an end 6 which is inclined toward the base portion of the rail, and is adapted to come in contact with correspondingly shaped wall 7 formed at the base or juncture of the longitudinal slot or groove 2, the length of said tongue corresponding in length to the length of said slot formed in the opposite or meeting end of the rail. The rail thus constructed is provided with oppositely located abutting and inclined surfaces 8 which are provided by forming the tongue, against which abutting surfaces, the ends 9, forming the free ends of the adjacent end of the rail to be connected is adapted to be brought in contact, said ends 9 being likewise inclined or shaped to correspond with the abutting surfaces 8 formed in the rail 6 on either side of the said tongue as clearly shown in Fig. 3 of the drawings.

In forming the tongue previously referred to it will be noted that the same is constructed in such a manner as to provide along its entire length two oppositely located inclined surfaces or faces 10, which are adapted to come in contact with the similarly constructed walls 4 of the forked or meeting end of the opposite rail or that to be connected.

Extending downwardly and forming an integral part of the rail and below the tongue 5 of the same, is a wing 11, the lower edge of which is preferably on a line with the lower edge or base of the rail and is reduced in width in respect to said tongue 5, whereby two oppositely located inclined surfaces 12 are formed, which are adapted to be freely but snugly received by correspondingly shaped grooves 13 formed in the opposite or connecting end of the rail, said wing being likewise received by a correspondingly shaped space formed in the opposite end of the connecting rail.

In order to properly construct my invention I preferably enlarge the rails adjacent to their connecting ends as shown at 14, the enlargement thus formed upon the rail 6 having longitudinally arranged V-shaped grooves 15, which extend from the abutting oppositely located surfaces 8 of the end of

the enlarged portion of the rail and along the tongue 5 forming the end of the rail, but not the full length thereof, which V-shaped grooves are located at a suitable distance from the upper edge of the tongue and adapted to freely but snugly receive the correspondingly shaped lower edges 16 forming the lower longitudinal edges or surfaces of the forked end of the opposite rail or that to be connected.

In forming the ends of the rails to be united the abutting or contacting surfaces 17 forming the ends of the enlarged portions 14 are beveled or inclined similar to the inclined ends of the fork formed on the opposite rail to be connected or united, whereby a continuous union or connection is obtained between the several parts when the same are properly united or brought in relation in respect to one another in a manner clearly shown in Fig. 1 of the drawing.

The rail joint herein described is susceptible of many advantages and it is obvious that it is not necessary to use bolts or other fastening device for removably securing the opposite ends of the rails, and further a smooth, uninterrupted and continuous surface is formed particularly about the ball or bearing portion of the rail, the union or joint thus constructed, properly allowing for the usual contraction and expansion of the rails without in any way affecting the general alinement or the contour of the construction thus formed.

In carrying out my invention I do not limit myself to the precise construction herein shown and described and it is obvious that the same may be changed or modified in many respects without departing from the nature of my invention.

Having fully described my invention what I claim is:

A railway joint comprising a rail having a tongue formed on the free end thereof and projecting therefrom, said tongue having oppositely located inclined walls, an enlarged portion forming a part of said rail and located below the tread portion of the rail and having grooves formed in the upper surface of said enlarged portion adjacent to the oppositely inclined walls of said tongue, a second rail, the uniting end of which is forked providing a longitudinal groove or slot extending from the free end of said rail to a suitable distance along its length and adapted to snugly receive the tongue formed on the first named rail, the ends of the several parts being properly inclined in respect to one another, forming abutting surfaces when the uniting ends of the rails are brought together as and for the purpose described.

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

CLARENCE A. BAUDER.

Witnesses:

O. H. McNeill,

C. S. Duncan.