

W. L. BUCKLAND.
RAIL JOINT.
APPLICATION FILED DEC. 7, 1908.

972,993.

Patented Oct. 18, 1910.

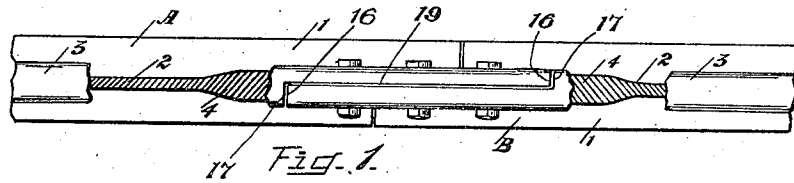


Fig. 1.

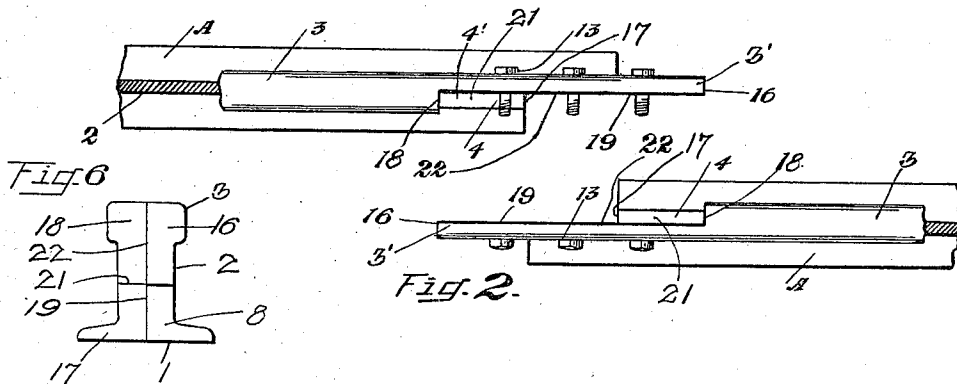


Fig. 2.

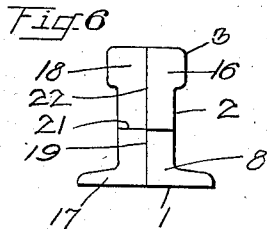


Fig. 6.

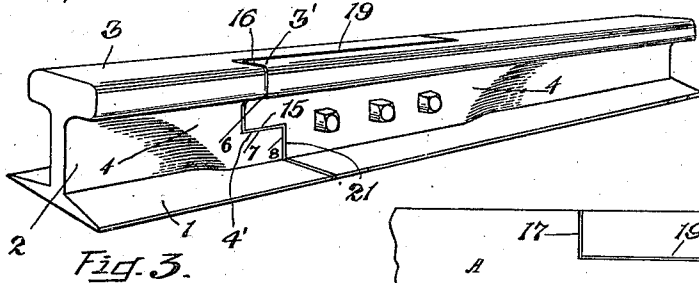


Fig. 3.

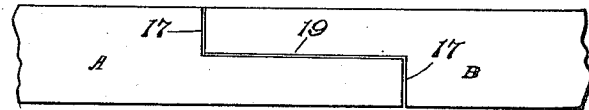


Fig. 4.

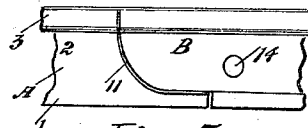


Fig. 5.

Witnesses
Chas. A. Hardell
E. T. De George.

Inventor
WARREN L. BUCKLAND
By *Ridley & Love*
Attorneys

UNITED STATES PATENT OFFICE.

WARREN L. BUCKLAND, OF ROCHESTER, NEW YORK.

RAIL-JOINT.

972,993.

Specification of Letters Patent.

Patented Oct. 18, 1910.

Application filed December 7, 1908. Serial No. 466,204.

To all whom it may concern:

Be it known that I, WARREN L. BUCKLAND, a citizen of the United States, residing at Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Rail-Joints, of which the following is a specification, reference being had therein to the accompanying drawing.

My invention relates to an improved rail-joint, and I declare the following is a full, clear, concise and exact description thereof, sufficient to enable one skilled in the art to make and use the same, reference being had to the accompanying drawings in which like reference characters refer to like parts throughout.

One of the features of the invention is that a joint may be made between two rails by connecting the ends of the rails which are formed to interfit one with the other by certain peculiarities of construction, the joint being made without the use of fish-plates.

Other particulars of the invention will appear from the specifications.

In the drawings Figure 1 is a plan view of a rail showing the joint, portions of the rail-tread being broken away to show the feature of the web of the rail; Fig. 2 is a plan view of the parts shown in Fig. 1 separated somewhat, part of the tread being broken away; Fig. 3 is a side view of one form of construction; Fig. 4 is a bottom plan view of the rail joint, and Fig. 5 illustrates one of the various modified forms of cutting the rails to interfit. Fig. 6 shows an end view of the rail.

In carrying out the aim of my invention, I provide a rail, which has its ends quartered to provide four vertical stop faces, and two horizontal surfaces, arranged for coaction with the similarly quartered ends of adjacent rails, to provide in effect a solid continuous rail.

Referring to the figures in detail, the rails are marked A and B, each rail being composed of a base 1, web 2 and tread 3. In forming the rail the web of the rail is thickened as it approaches the end of the rail, as

shown at 4, in Fig. 1 and in shaded lines in Fig. 3. As I do not employ fish-plates and as the tread and web of the rail are divided longitudinally of the rail, the web is thickened to give sufficient strength of material, the wall of the web however not coming outward to the edge of the tread.

The ends of the rail are cut, vertically and longitudinally on a median line, for a suitable distance, to provide the vertical faces 19, and the two vertical end faces 17 and 22. The under half of each projected end 3' is then cut away to provide the horizontal underface 15, and the vertical quarter stop face 21. The rail ends upon the side opposite the face 21, have the upper half of the rail removed a distance equal to the length of the projecting end 3', to provide the upper quarter stop face 16.

The horizontal undersurface 15, of one rail end is arranged to overlie the surface 4' of the adjacent rail end, while the vertical stop surface or face 17 abuts against the rail face 16. The rail upon one side, presents two vertical stop surfaces or faces 17 and 21 which are separated from one another, the quarter face 21 being located midway between the faces 17 and 22, the stop face 22, upon the opposite side, again being provided midway between the stop surfaces 16 and 21.

With this construction, a rail is provided, which presents four break points, each being in a plane parallel to and in spaced relation to the adjacent planes.

In the modification shown in Fig. 5, I provide the rail with a curved edge 11, in place of the faces 16 and 17.

What is claimed is:

A rail having its web thickened at the end and cut vertically and longitudinally to bisect the rail on a vertical medial plane, to provide two flat contacting faces, each half face having a projecting tongue located below the ball of the rail, the width of said tongue being substantially one half the width of the web of the rail, a second vertical abutting end of the ball of the rail being located a suitable distance from the end of the tongue, a vertical wall formed below the tongue and on a plane with the contacting

surface of the flange of the rail, the latter
surface being located on a plane beyond the
said second abutting end of the ball of the
rail, said half section having a correspond-
5 ingly shaped recessed portion formed there-
in on the opposite side of the rail beyond the
abutting surfaces.

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

WARREN L. BUCKLAND.

Witnesses:

ETHEL P. FREYTAG,

ELEANOR T. DE GIORGI.