

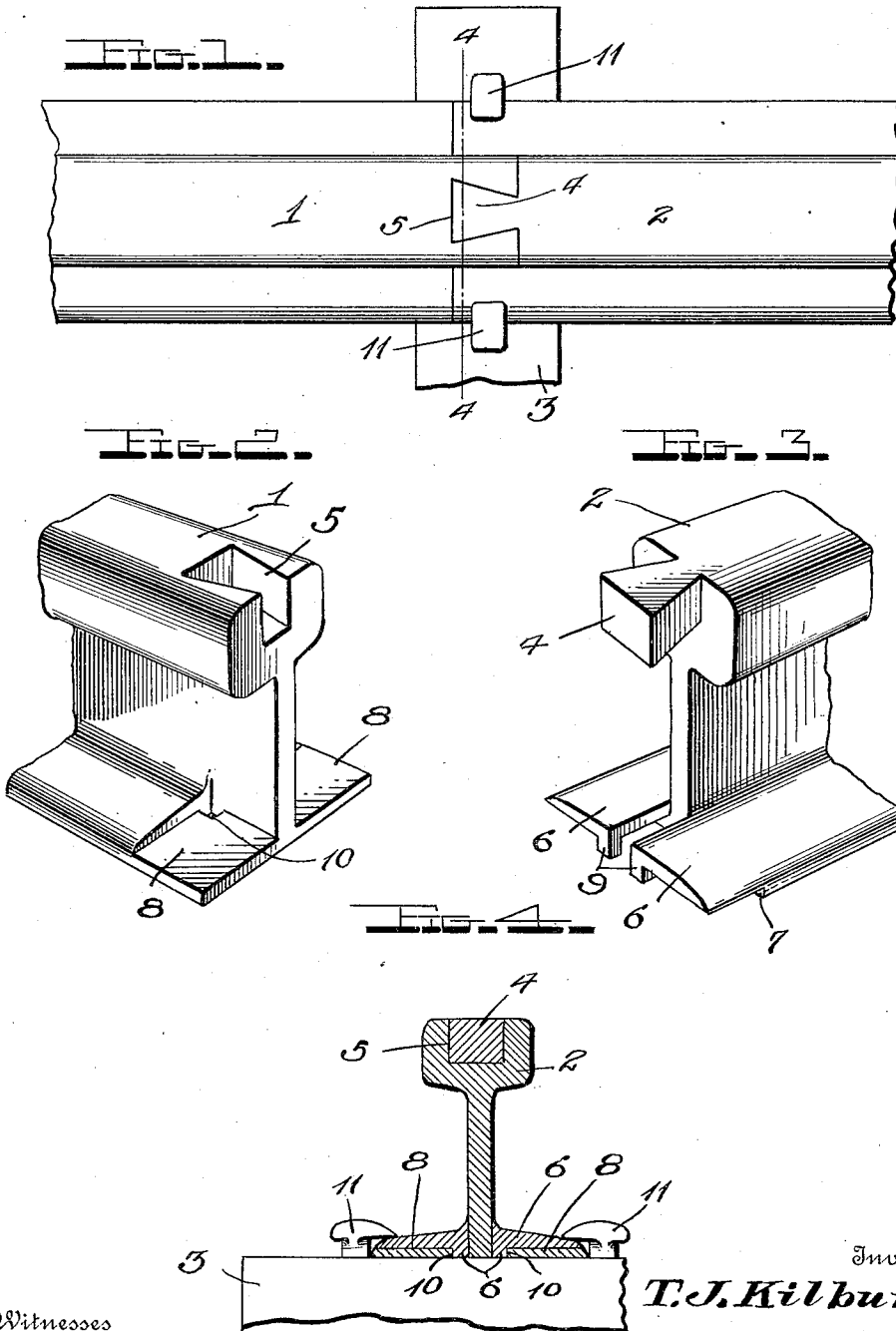
T. J. KILBURN.

RAIL JOINT.

APPLICATION FILED MAY 15, 1912.

1,057,000.

Patented Mar. 25, 1913.



Witnesses

Chas. L. Griesbauer.

A. B. Norton.

By

Watson & Coleman

Attorney

Inventor

T. J. Kilburn,

UNITED STATES PATENT OFFICE.

THOMAS J. KILBURN, OF ETHRIDGE, TENNESSEE, ASSIGNOR OF ONE-HALF TO JAMES B. USSERY, OF ETHRIDGE, TENNESSEE.

RAIL-JOINT.

1,057,000.

Specification of Letters Patent.

Patented Mar. 25, 1913.

Application filed May 15, 1912. Serial No. 697,474.

To all whom it may concern:

Be it known that I, THOMAS J. KILBURN, a citizen of the United States, residing at Ethridge, in the county of Giles and State of Tennessee, have invented certain new and useful Improvements in Rail-Joints, of which the following is a specification, reference being had to the accompanying drawings.

My invention relates to new and useful improvements in rail joints and more particularly to a boltless rail joint and the primary object of the invention is to provide a device of this character which, without the use of bolts, will provide a perfect operating and most efficient rail joint.

Another object of the invention resides in the provision of a projection on the tread at the end of one of the rails which is adapted to fit within a recess formed in the tread of the opposed rail and a further object of the invention resides in the provision of projections on the base of one rail adapted to be disposed in openings in the recesses formed in the base of the opposed rail.

A still further object of the invention resides in providing a device which is extremely simple and durable in construction, inexpensive to manufacture and one which will be very efficient and useful in operation.

With these and other objects in view, the invention consists in the novel features of construction, combination and arrangement of parts as will be hereinafter referred to and more particularly pointed out in the specification and claim.

In the accompanying drawing forming a part of this application, Figure 1 is a top plan view of a pair of rails embodying my improved joint. Fig. 2 is a perspective view of the meeting end of one of the rails. Fig. 3 is a similar view of the opposed rail; and Fig. 4 is a vertical transverse section as seen on line 4—4, Fig. 1.

In describing my invention, I shall refer to the drawing in which similar reference characters designate corresponding parts throughout the several views and in which—

1 and 2 indicate respectively a pair of opposed rails meeting over a tie 3 and in order to form a joint therebetween, the rail 2 has formed on the end of the tread thereof a dove-tail projection 4, which is adapted to fit within a dove-tail channel or recess 5 formed in the tread of the opposed rail 1.

The projection 4 is so formed on the tread of the rail 2 that the upper face of the former is a continuation of the upper face of the latter, it being understood that the thickness of the projection 4 and the corresponding depth of the recess or channel 5 therefor, may be any that is less than the thickness of the treads proper of said rails and formed on the base flanges of the rail 2 are the projections 6. These projections are continuations of the upper portions of said base flanges, thereby providing a shoulder 7 at the end of the rail and the base flanges of the opposed rail 1 are provided with recesses 8 adapted to receive the extensions 6 of the rail 2. The extensions 6, are, of course, spaced apart the width of the web of the rail 2, and when brought in position to be seated in the recess 8 of the opposed rail, are disposed on opposite sides of the web of the latter so that the shoulder 7 formed at the end of the rail 2 by the provision of these projections 6 abuts the end of the base flanges of the rail 1.

While the structure above described locks the two rails together to a certain extent, I have provided a still further securing means which comprises a pair of integral studs or lugs 9 formed on the inner opposed end edges of the projections 6, which studs or lugs are square in cross section and are adapted to fit within square openings 10 formed on opposite sides of the tread of the rail 1 in the seats 8. It has been stated that the projections 6, when properly disposed will snugly receive therebetween the web of the rail 1 and when the studs 9 on said projections are entered within these openings 10, it will be appreciated that all possible longitudinal and lateral movement of said rails will be prevented.

In practice, when it is desired to lock the two rails, the rail 1 is first properly positioned, whereupon the rail 2 is then moved into position so that the space or slot between the projections 6 thereon will receive the web of the rail 1. In this position, the end of the rail 2 is slightly raised so that when lowered, the dove-tail projection 4 may be entered readily within the recess 5 of the opposed rail and upon the entering of this projection within the recess, the studs 9 may be simultaneously entered within the openings 10. When the parts of the two rails are properly interlocked, spikes 11 may

be driven in the tie 3 so that the heads of the former will engage the projections 6, thereby securing the joint to said tie.

From the foregoing it will be seen that I have provided a simple and inexpensive rail joint which will be most effective in carrying out the objects for which the same is designed.

While I have particularly described the elements best adapted to perform the functions set forth, it is obvious that various changes in form, proportion and in the minor details of construction may be resorted to without departing from the spirit or sacrificing any of the principles of the invention.

Having thus described this invention, what I claim is:—

In a rail joint, the combination with a rail having its base flanges extended beyond one end thereof and spaced apart a distance equal to the thickness of the rail web, said extended portions of the base flanges being

reduced in thickness by cutting away the under sides thereof, and depending lugs formed on the outer ends of said base flanges adjacent the inner edges thereof; of a second rail having its base flanges reduced in thickness for a portion of their lengths adjacent one end, said reduced portions being formed by cutting away the upper surfaces of the base flanges, openings formed in the innermost corners of said last mentioned reduced portions adapted to receive said depending lugs; the projected portions of the base flanges of the first mentioned rail overlapping the reduced portions of the base flanges of the second mentioned rail and forming therewith a lapped joint equal in thickness to one of said base flanges.

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

THOMAS J. KILBURN.

Witnesses:

SOLON BUCHANAN,
A. M. HANNAH.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."