

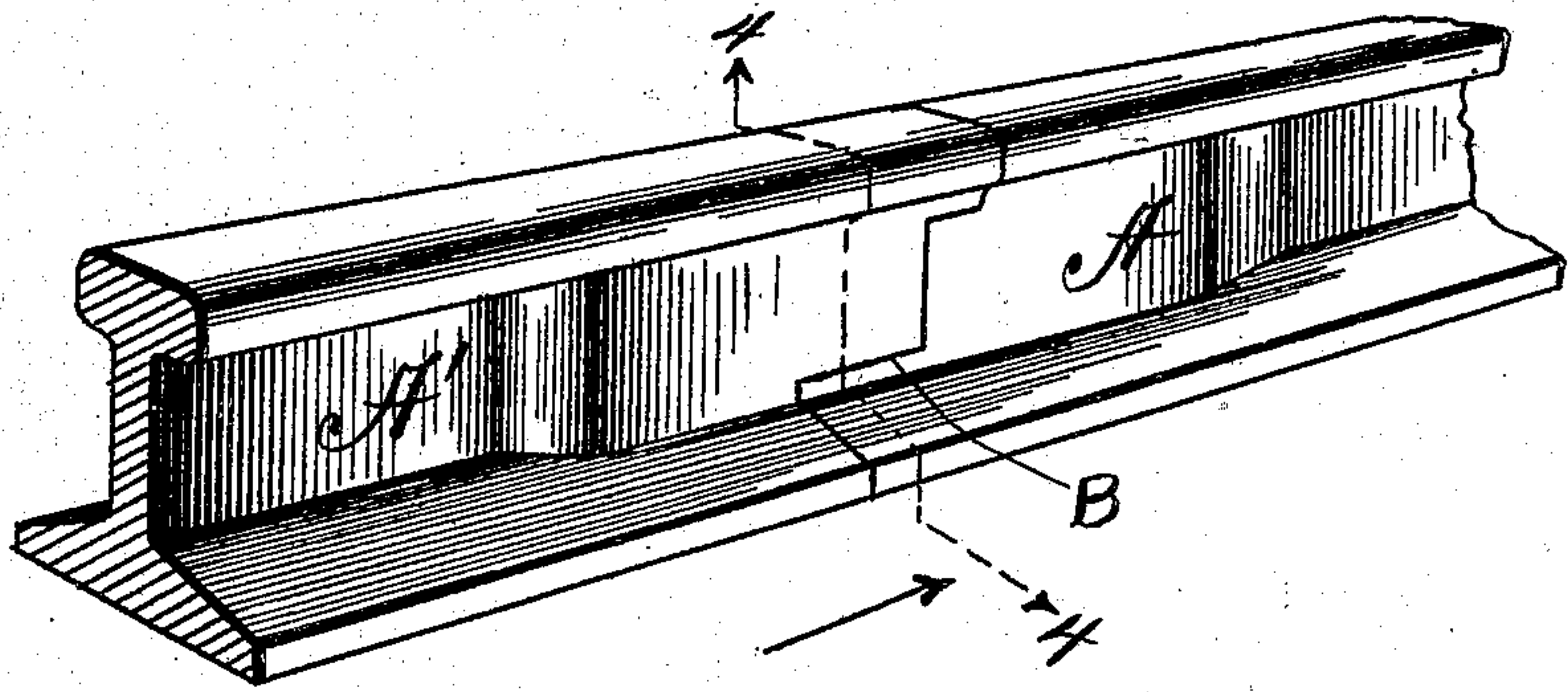
No. 885,787.

PATENTED APR. 28, 1908.

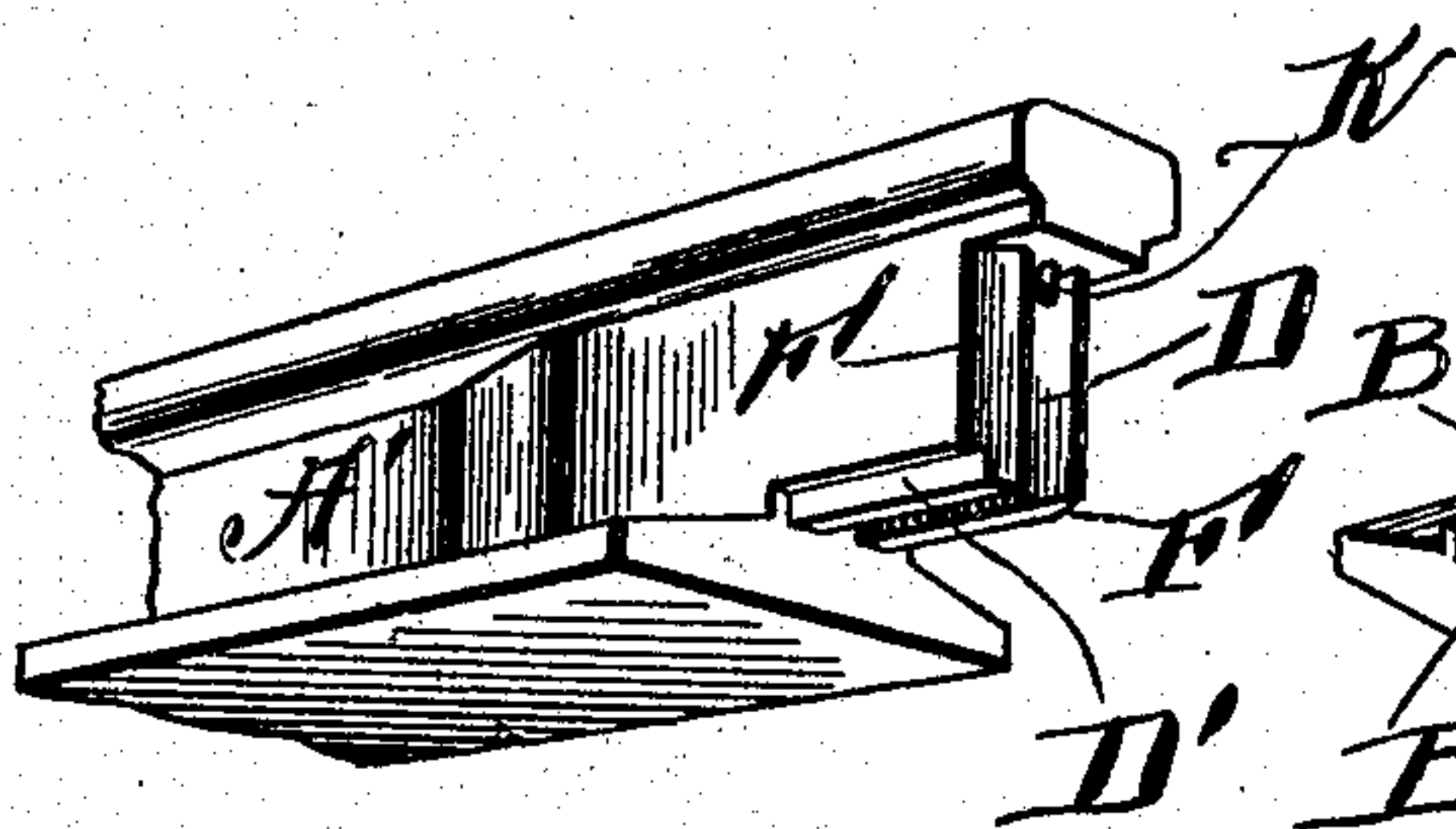
W. H. REEL.  
RAILWAY RAIL JOINT.  
APPLICATION FILED JULY 8, 1907.

2 SHEETS—SHEET 1.

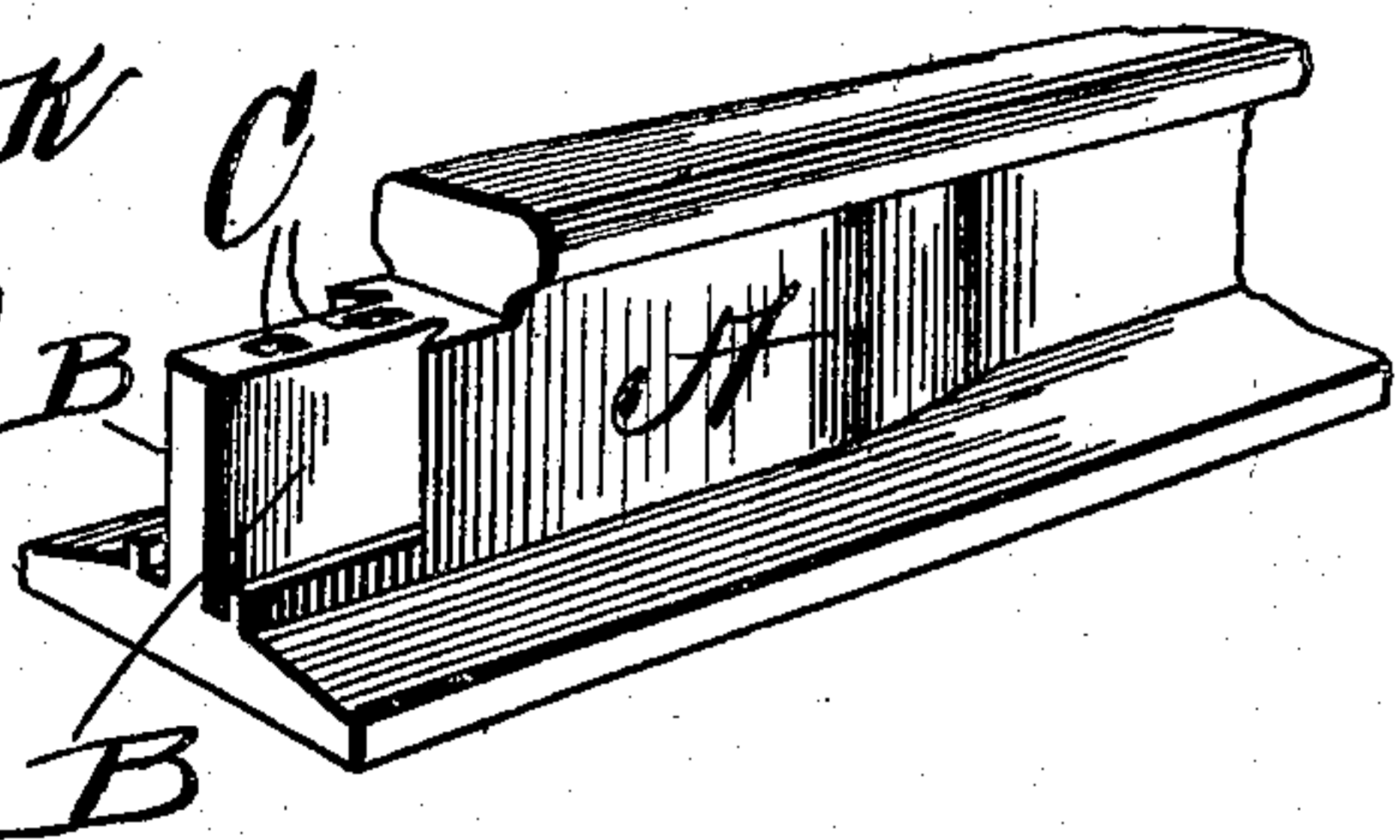
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



Witnesses

*R. B. Brownell*  
*C. R. Hough*

By

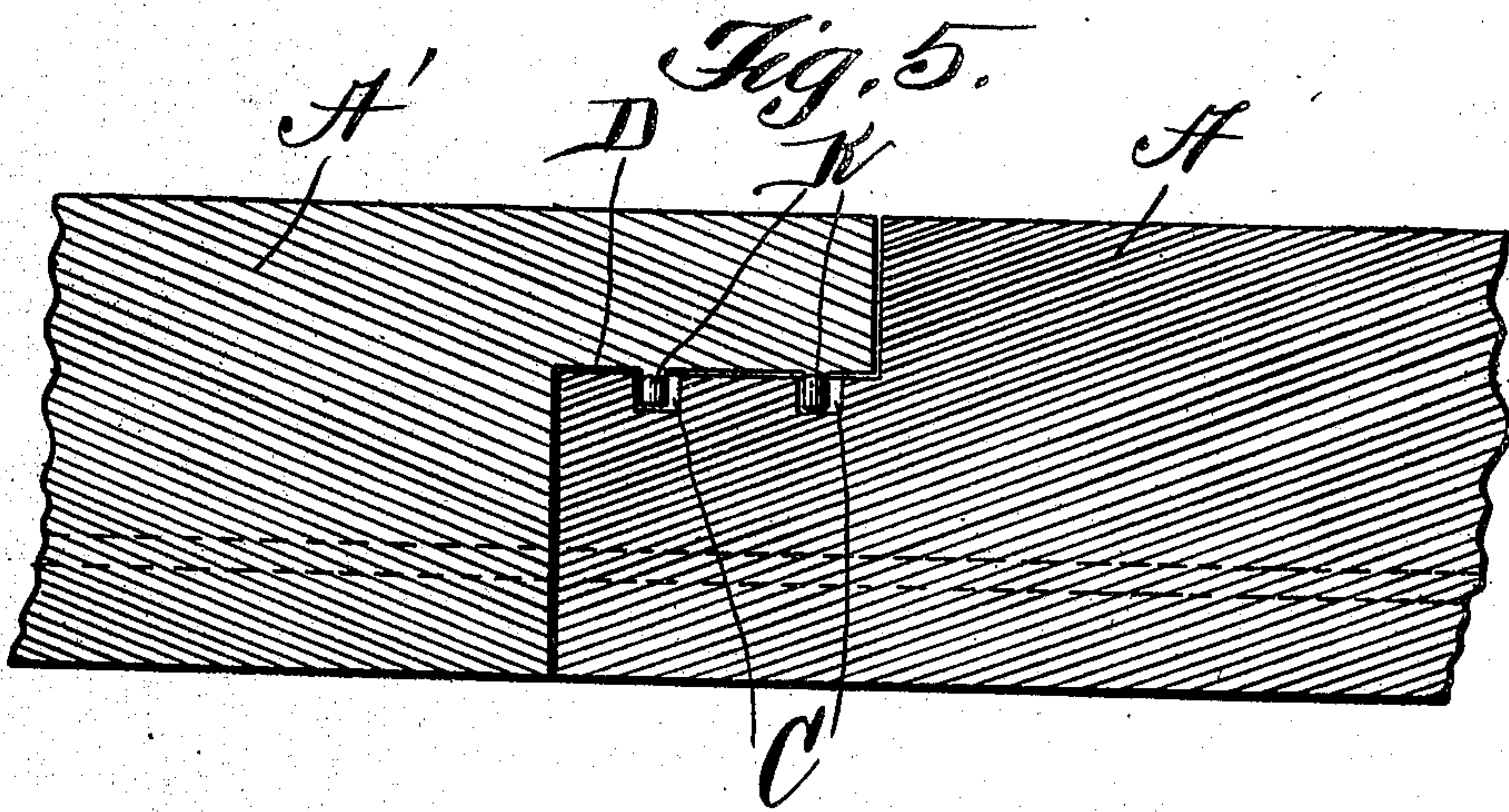
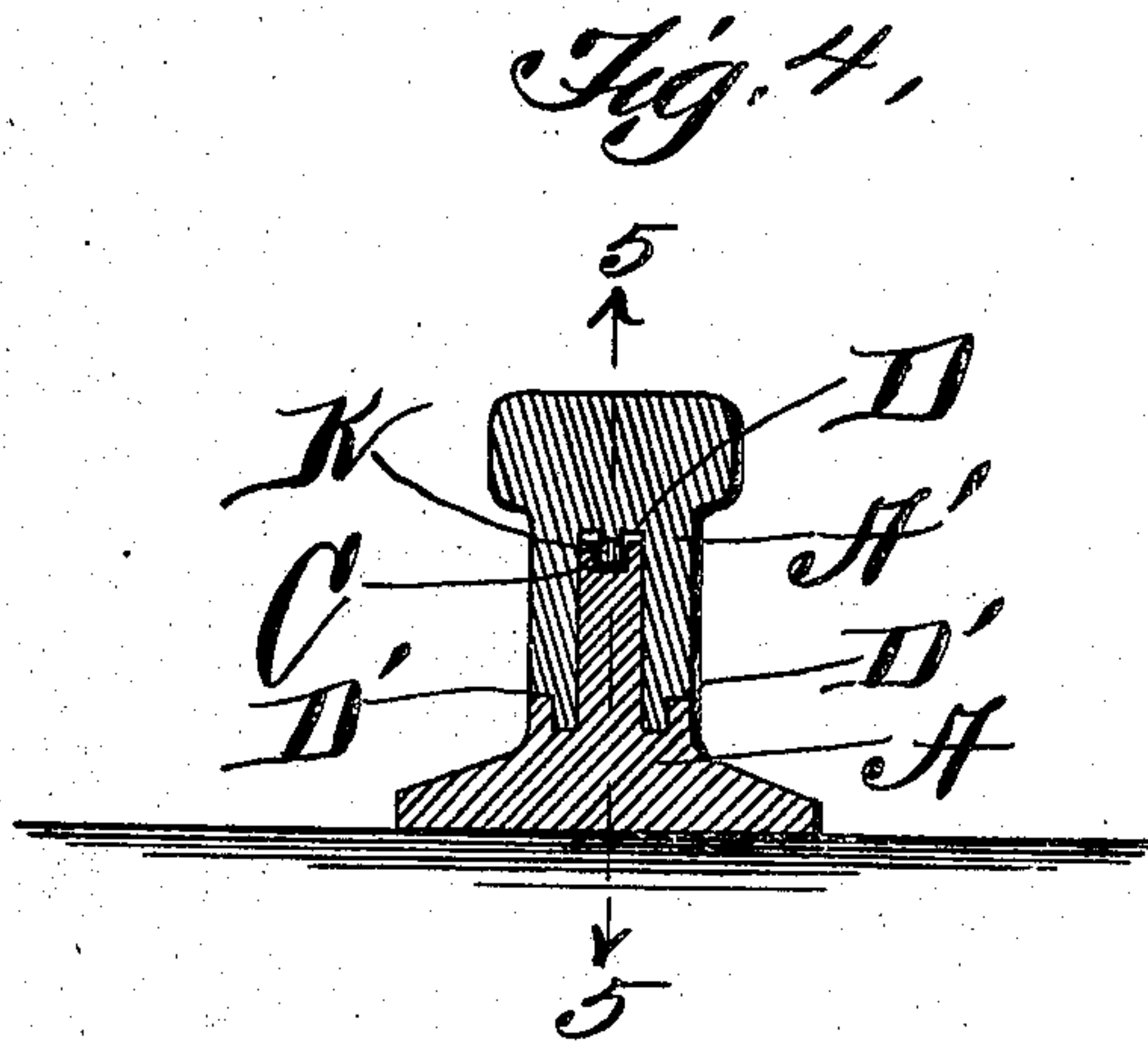
*Wilbur H. Reel,*  
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2 SHEETS—SHEET 2.



Witnesses  
*R. B. Brown*  
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Inventor  
*Wilbur H. Reel*  
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Attorneys



# UNITED STATES PATENT OFFICE.

WILBUR H. REEL, OF PENNSGROVE, NEW JERSEY.

## RAILWAY-RAIL JOINT.

No. 885,787.

Specification of Letters Patent.

Patented April 28, 1908.

Application filed July 8, 1907. Serial No. 382,642.

*To all whom it may concern:*

Be it known that I, WILBUR H. REEL, a citizen of the United States, residing at Pennsgrove, in the county of Salem and State of New Jersey, have invented certain new and useful Improvements in Railway-Rail Joints; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

This invention relates to new and useful improvements in rail joints, the object of the invention being to produce a simple and efficient and at the same time durable joint without the use of fish plates, and comprises various details of construction and combinations and arrangements of parts which will be hereinafter fully described and then specifically defined in the appended claims.

I illustrate my invention in the accompanying drawings, in which:—

Figure 1 is a perspective view showing two rails connected together by my improved joint. Fig. 2 is a perspective view of one end of the rail. Fig. 3 is a similar view of the opposite end of the rail. Fig. 4 is a sectional view on line 4—4 of Fig. 1, and Fig. 5 is a sectional view vertically and longitudinally through the rails connected together.

Reference now being had to the details of the drawings by letter, A and A' designate two meeting ends of rails, one end A having its opposite faces recessed away as at B, the two marginal edges of each recess being undercut. The central shank portion of the end A intermediate the bottoms of said recesses B is provided with two indentures C in the upper edge thereof. The rail end A' is provided with a longitudinal chambered portion D having parallel side walls and an open bottom with a shoulder D' formed along the marginal edge of the lower portion of each of said walls. The end walls of the chambered portion are beveled as at F, said bevels corresponding to the undercut ends of the recesses formed in the opposite faces of the end rail A against which the beveled portions of said walls are adapted to contact when the two rails are joined together. Depending from the roof of the chambered portion of the rail end A' are the integral lugs K spaced

apart and adapted to engage the indentures C formed in the upper edge of the portion of the rail end A intermediate its recessed parts. It will be noted that said indentures C are somewhat elongated and adapted to allow the lugs to have a slight longitudinal play therein incident to the expansion and contraction of the metal in the rails. The lower shouldered portion of the rail section A', when the rail ends are interlocked, rests upon the marginal edge of the walls of the recesses in the rail A, as will be readily seen in the drawings. It will be noted that a portion of the tread surface of the rail end A is cut away a distance corresponding to the depth of the chamber in the rail section A', in order to allow the chambered end of the section A' to telescope over the adjacent end of the other rail whereby the parts may be interlocked, as shown in Fig. 1 of the drawings. In interlocking the rails, the end of the rail having the chambered portion is placed down over the recessed end of the other rail, the lugs engaging the indentures in the manner shown and described and, when the two rail sections are joined together, their tread and bottom surfaces will be in parallel planes. By reason of the lugs engaging the indentures in the body of the rail and owing to the peculiar manner of interlocking the sections of the rails, it will be readily seen that the two rails will be securely held against lateral as well as longitudinal movement independent of each other.

As the meeting ends of the rails, which are connected together, are reinforced by making the web portions thereof thicker than the normal thickness of the webs of rails and by the peculiar interlocking mechanism shown, fish plates which are ordinarily used for the purpose of connecting rails together may be dispensed with, at the same time producing an efficient means without employing bolts, nuts and other appliances which are likely to become loose and thereby entail accidents to rolling stock moving over the rails thus equipped.

What I claim is:—

1. A rail joint comprising two rails, one of which has the tread surface and the opposite faces of the web thereof recessed, the inner end walls of the recesses being inclined, parallel ribs rising from the flange of the rail and spaced apart from the opposite faces to the recesses of said web, the other rail having a longitudinal groove in its end to receive said



recessed web, the ends of the walls of said groove being inclined to conform to the inclined end walls of the recesses in said web, the lower edges of the walls of the groove being contracted and adapted to seat in the spaces intermediate said ribs, and the opposite faces of the web of the recessed rail, and having shouldered portions resting upon said ribs, lugs projecting from the top of the groove and designed to engage in indentures in the web of the recessed rail, as set forth.

2. A rail joint comprising two rails, one of which has the tread surface and the opposite faces of the web thereof recessed, the inner end walls of the recesses being inclined, parallel ribs rising from the flange of the rail and spaced apart from the opposite faces of the recesses of said web, the other rail having a longitudinal groove in its end to receive

said recessed web, the ends of the walls of said groove being inclined to conform to the inclined end walls of the recesses in said web, the lower edges of the walls of the groove being contracted and adapted to seat in the spaces intermediate said ribs and the opposite faces of the web of the recessed rail, and having shouldered portions resting upon said ribs, lugs projecting from the top of the groove, and designed to engage in the indentures of the recessed rail, the tread and the web at the end of the grooved rail being undercut, as set forth.

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

WILBUR H. REEL.

Witnesses:

WM. STONE,

CHARLES F. DENNY.