(No Model.)

L. CHILSON.

RAILWAY TRACK.

No. 446,161. Patented Feb. 10, 1891.

Fig. 1.

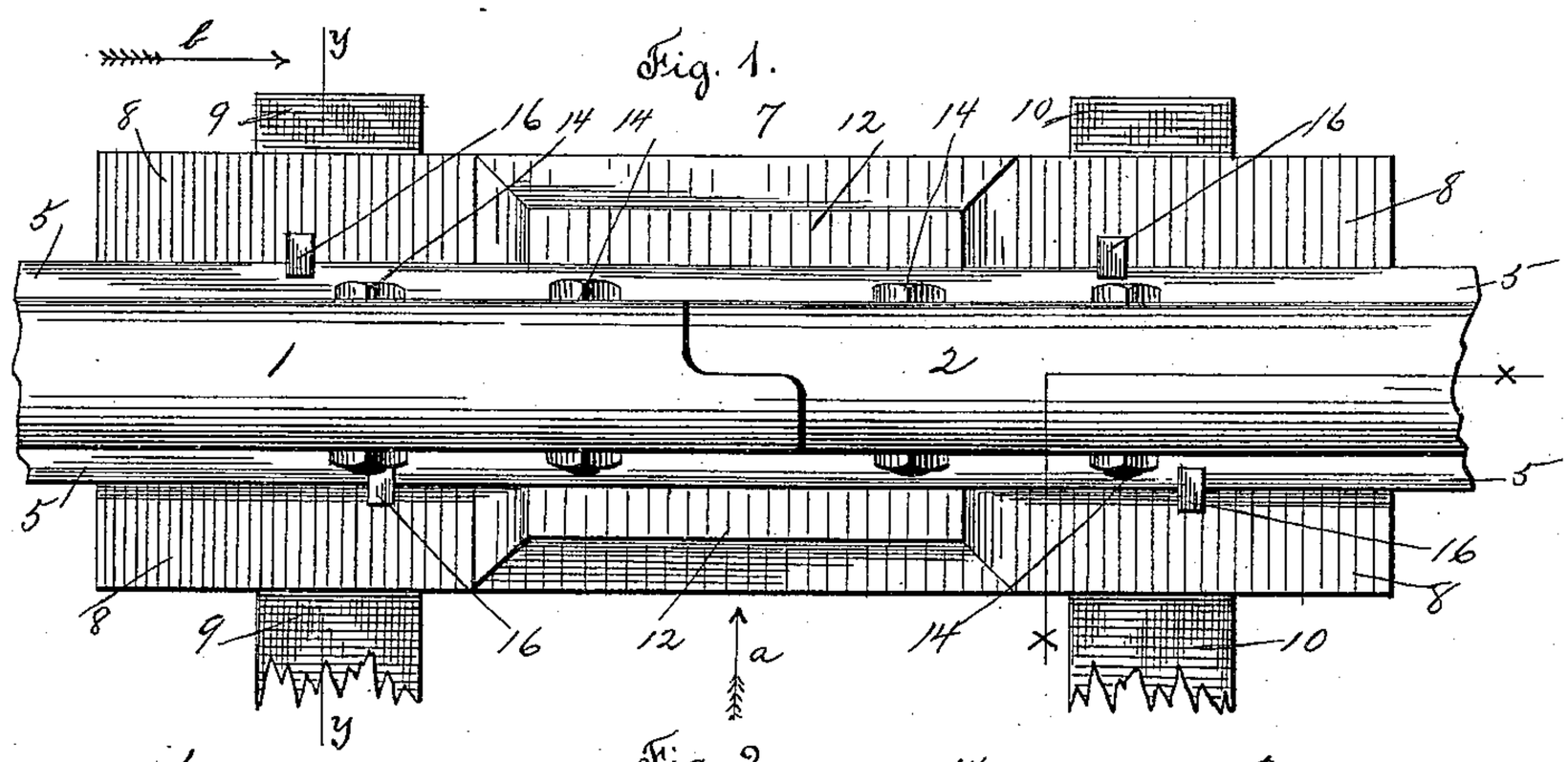


Fig. 2.

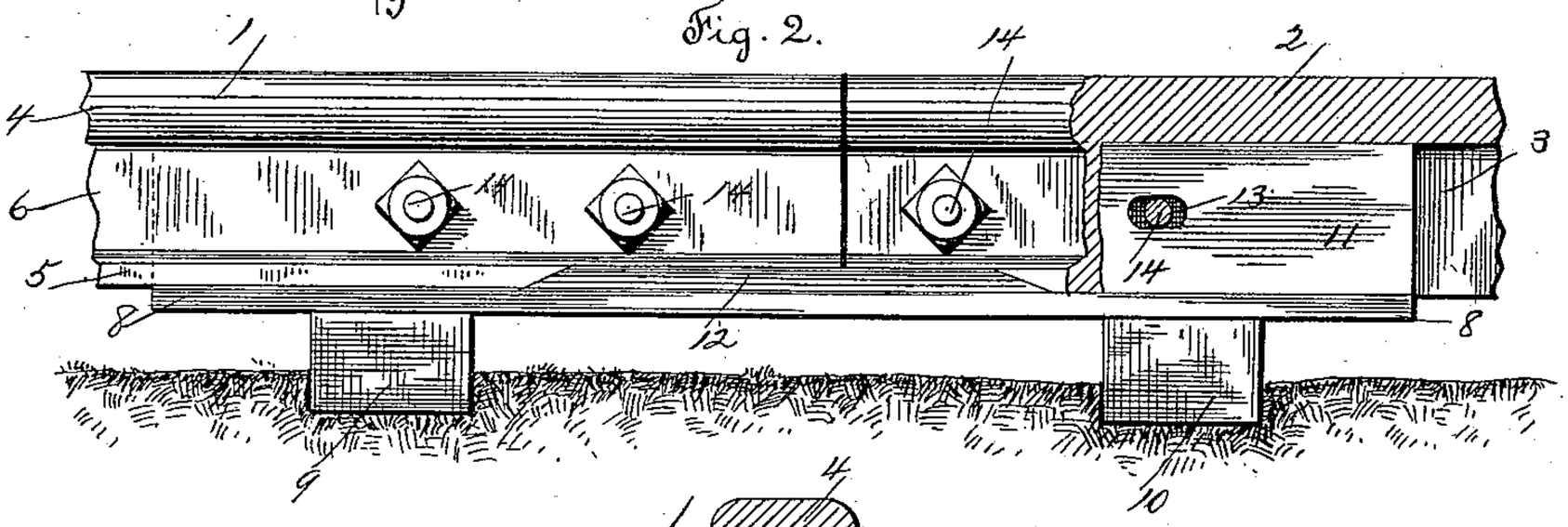


Fig. 3.

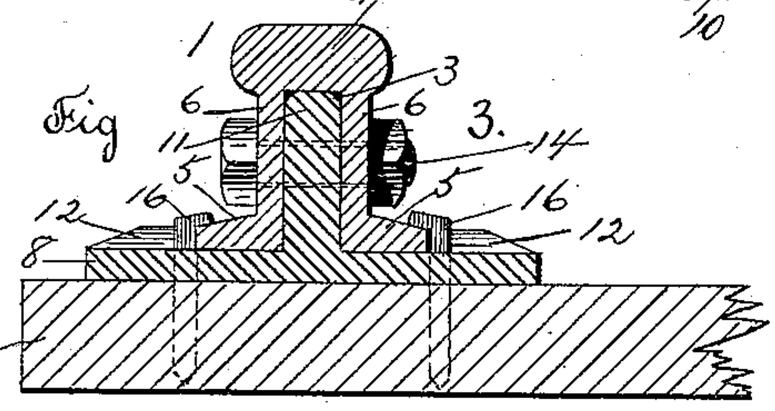
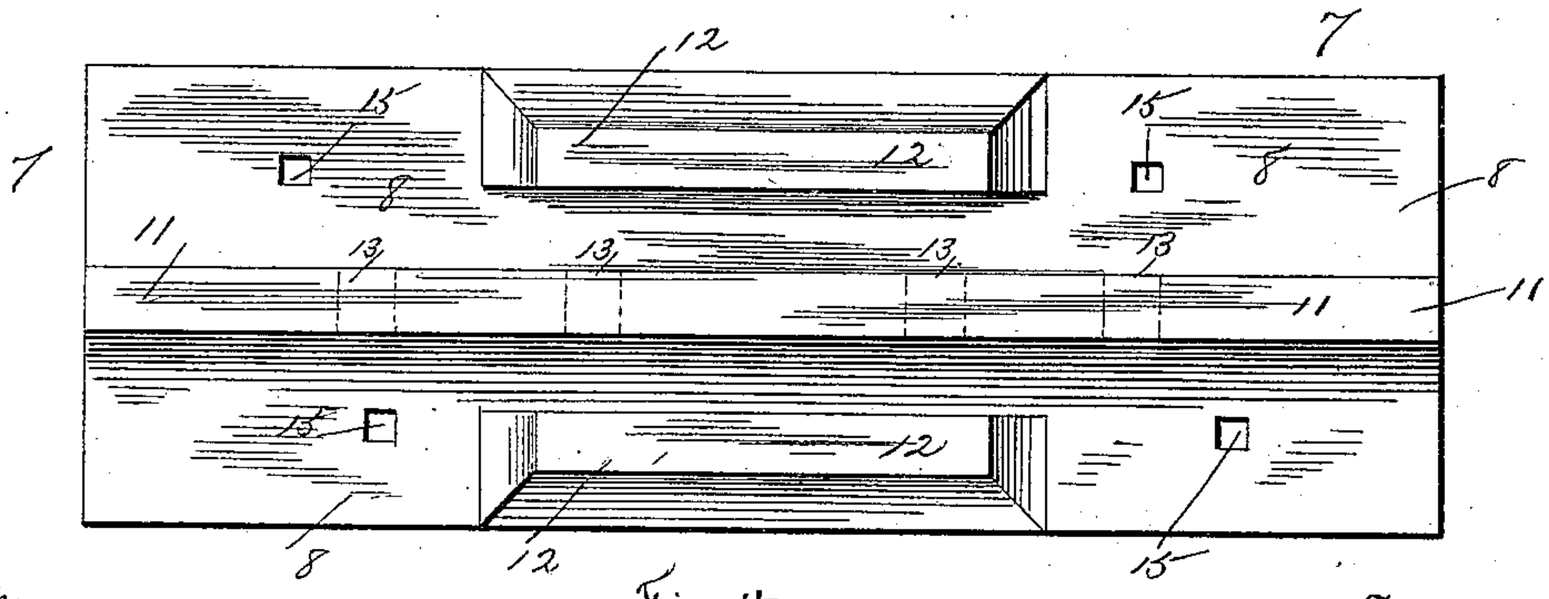


Fig. 4.



Witnesses
Chas. F. Schmelz.
Edmund R. Seymour.

Inventor
Lubeus Chilson.

By his Attorney
John C. Dewey.

UNITED STATES PATENT OFFICE.

LIBBEUS CHILSON, OF WORCESTER, MASSACHUSETTS, ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, TO WILLIAM R. KENDALL, ANDREW W. HUNT, AND MILTON L. FAY, ALL OF SAME PLACE.

RAILWAY-TRACK.

SPECIFICATION forming part of Letters Patent No. 446,161, dated February 10, 1891.

Application filed August 11, 1890. Serial No. 361,717. (No model.)

To all whom it may concern:

Be it known that I, LIBBEUS CHILSON, a citizen of the United States, residing at Worcester, in the county of Worcester and State of Massachusetts, have invented certain new and useful Improvements in Railway-Joints; and I do hereby declare that the following is a full, clear, and exact description thereof, which, in connection with the drawings making a part of this specification, will enable others skilled in the art to which my invention belongs to make and use the same.

My invention relates to railway-joints, and more particularly to the coupling or chair for connecting the ends of the rails.

The object of my invention is to improve upon the construction of rail-joints and to make a rail coupling or chair to connect the ends of rails, which shall be strong and durable, and to connect the contiguous ends of rails in such a manner as to prevent any end displacement of the rails, either in a vertical or in a horizontal plane, and secure the ends of the rails firmly to the ties or sleepers of the track.

My invention consists in certain novel features of construction of rail-joints, and more particularly of rail couplings or chairs, as will be hereinafter fully described.

Referring to the drawings, Figure 1 is a plan view of a railway-joint of my improved construction. Fig. 2 is a side view, partially in section on line *x x*, Fig. 1, looking in the direction of arrow *a*, same figure. Fig. 3 is a cross-section on line *y y*, Fig. 1, looking in the direction of arrow *b*, same figure, and Fig. 4 is a plan view of the rail coupling or chair detached.

In the accompanying drawings, 1 and 2 are the adjoining or contiguous ends of two rails. Said rails are made hollow or provided with a vertical slot 3 at their ends, extending longitudinally in the under part thereof, as shown in Figs. 2 and 3. The upper or bearing surface 4 of the rail is connected with the lower surface or flanges 5 5 of the rail by the double web or extensions 6 6, as clearly shown in Fig. 3.

I have shown in Fig. 1 the ends of the rails 1 and 2 made to overlap each other; but they may be made to abut against each other in the ordinary way, if preferred, as shown in side view, Fig. 2. The contiguous ends of the rails 1 and 2 are secured together by means of the coupling or chair 7, made of cast or malleable metal, of substantially the shape shown in the drawings, consisting of a base part or bed 8, preferably made of sufficient length to extend across two ties 9 and 10, as shown in the drawings. The base 8 rests upon the ties, and is provided with a central longitudinal rib or projection 11, preferably made integral therewith and extending upward from the central part thereof. The central rib 11 of the chair 7 is adapted to extend within the vertical slots 3 in the ends of the rails 1 and 2. The height of the rib 11 corresponds with the depth of the slots 3 in the ends of the rail, as shown in Fig. 3.

On each side of the central longitudinal rib 11 of the chair 7 is a projection or shoulder 12, preferably made integral with the base 8 and adapted to abut against the outer edges of the rail-flanges at the point where the rail ends meet, as shown in the drawings. The central rib 11 of the chair 7 is provided with elongated holes 13 therein, through which the bolts 14, headed at one end and provided with nuts at the other end, extend.

The bolts 14 serve to secure the ends of the rails 1 and 2 to the central rib 11 of the chair 7. Elongated holes 13 in the central rib 11, through which said bolts extend, allow of the expansion and contraction of the rails in the ordinary way.

The rail-chair 7 is preferably provided with holes 15 therein, through which the spikes 16 pass and are driven into the ties for the purpose of securing the chair and the rails attached thereto to the ties, as shown in Fig. 3.

The advantages of my improved construction of rail couplings or chairs will be fully appreciated by those skilled in the art.

By means of my improved rail coupling or chair, having the base part or bed 8 adapted to extend over the ends of two ties and to be spiked thereto, and having the central longitudinal rib 11 extending up from said base part and adapted to extend within the vertical slots 3 in the adjoining ends of the rails, I am enabled to secure the ends of said rails together without employing any fish-plates,

ordinarily employed, and in such a manner that the ends of the rails cannot move out of line with each other in a horizontal or vertical plane.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. As an improved article of manufacture, a rail coupling or chair having its base or bed 8 of sufficient length to extend over the ends of two ties, a central longitudinal rib made integral with said base and extending up therefrom for the purpose stated, and provided with elongated holes 13, and the projections or shoulders 12, extending upon opposite sides of the central rib 11, for the purpose stated, substantially as set forth.

2. In a rail-joint, the combination, with the contiguous ends of two rails having vertical slots 3 therein, of a rail coupling or chair 7, consisting of the base or bed 8, having a central longitudinal rib 11 made integral therewith and adapted to extend into the vertical slots 3, and the elongated holes 13 in said rib, and the projections or shoulders 12 on the base part, for the purpose stated, and bolts 14, all combined together substantially as set forth.

LIBBEUS CHILSON.

Witnesses:
JOHN C. DEWEY,
EDMUND F. SEYMOUR.