

(No Model.)

W. WHARTON, Jr.
RAILWAY.

No. 359,117.

Patented Mar. 8, 1887.

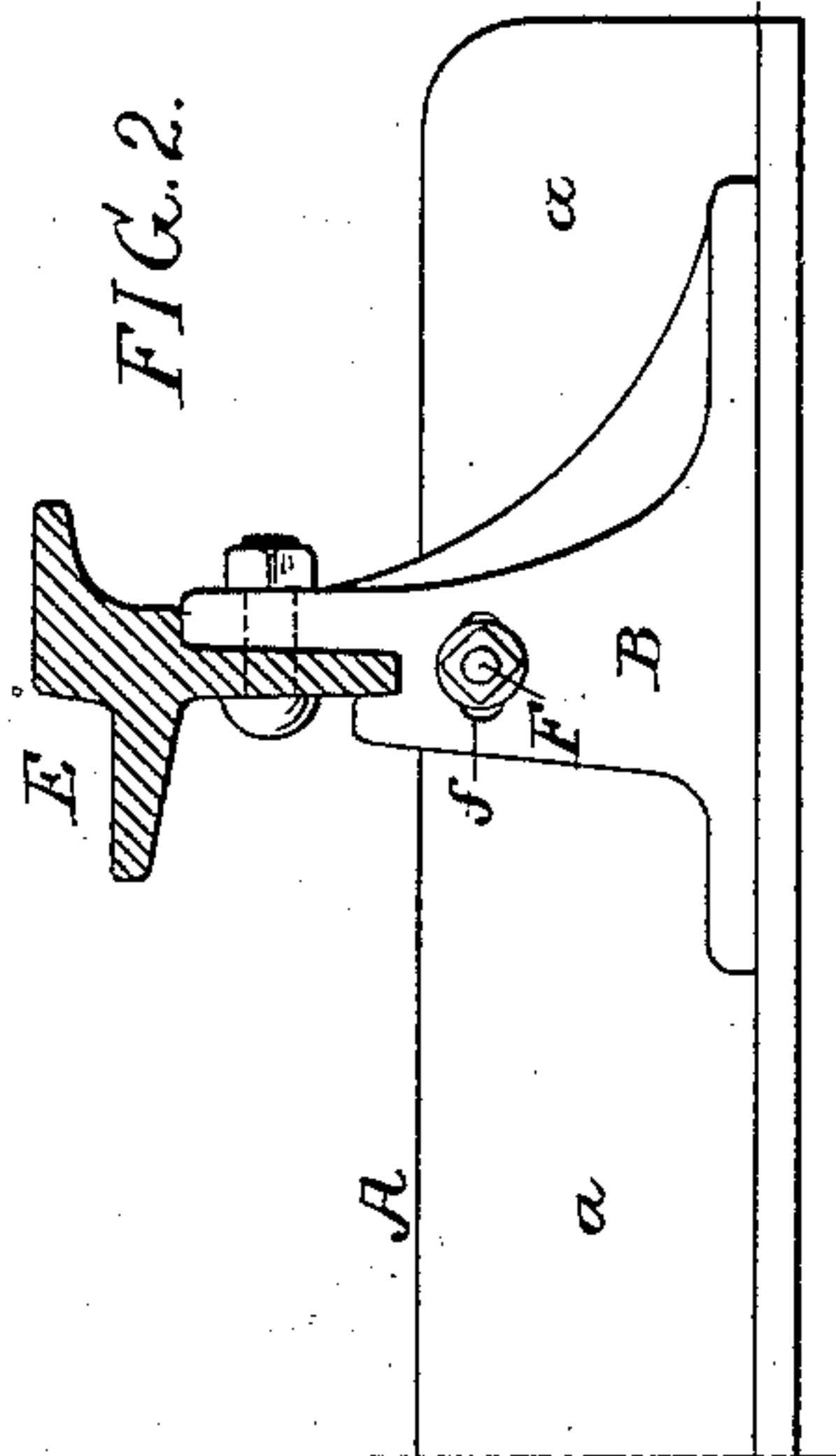
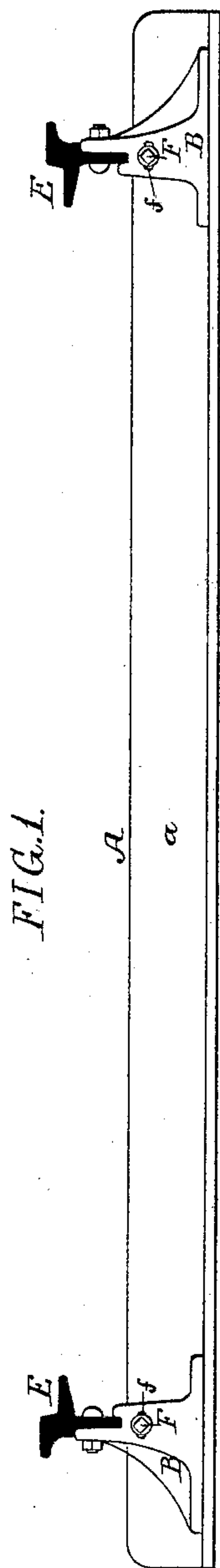


FIG. 4.

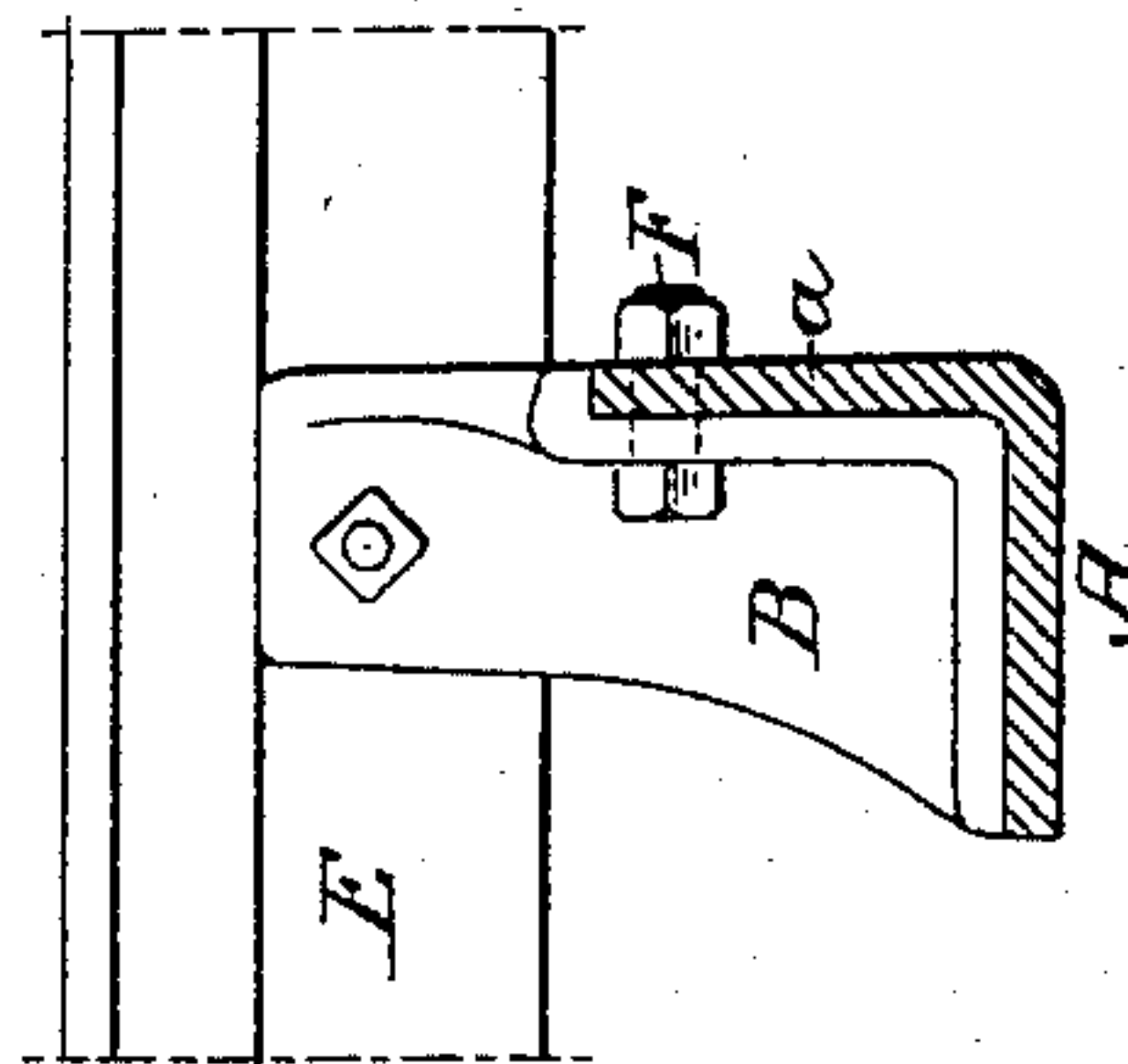


FIG. 3.

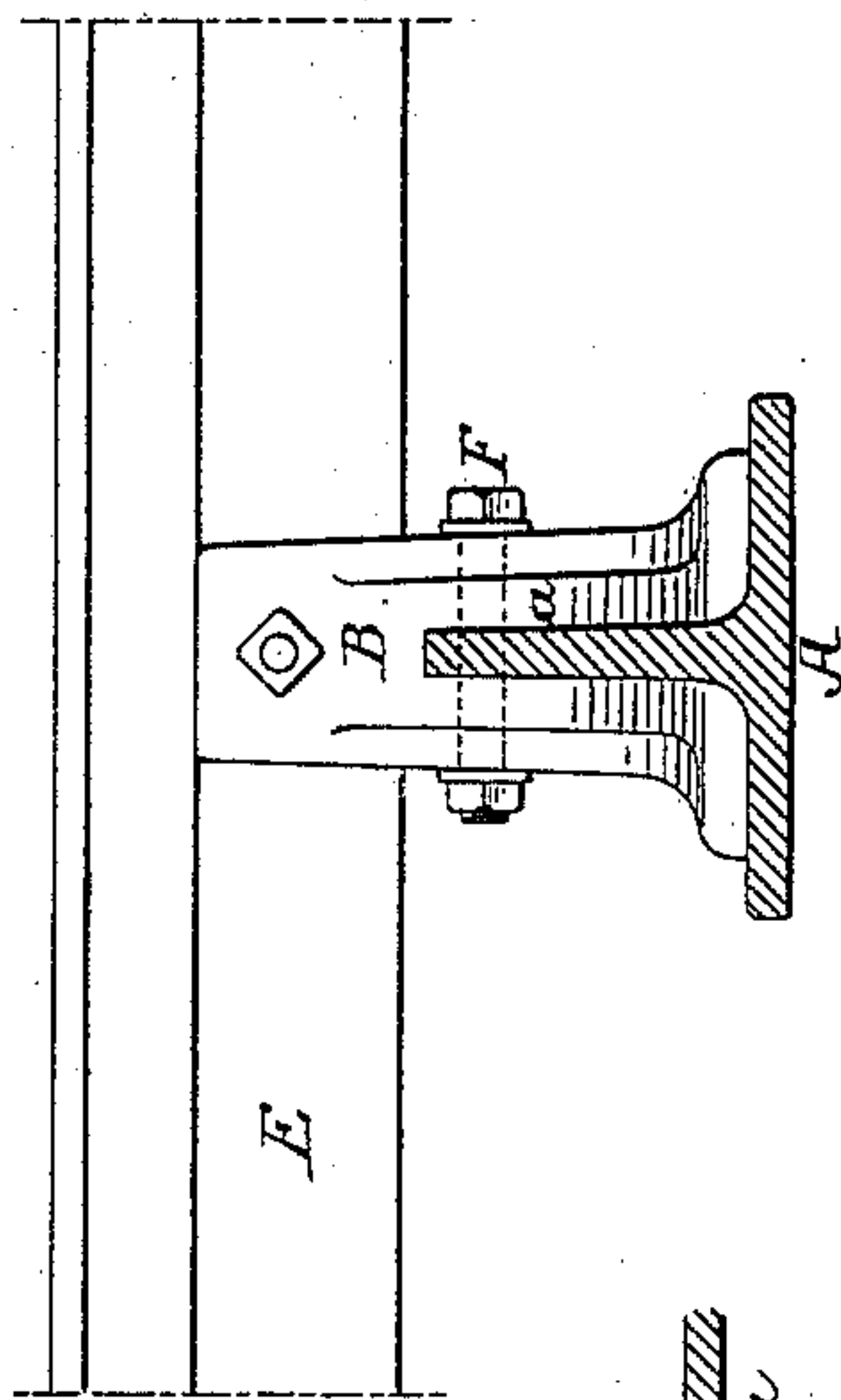
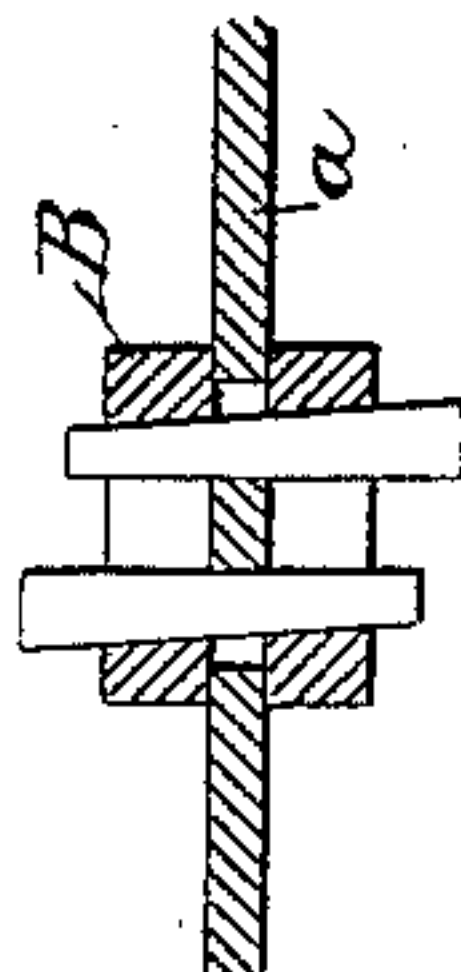


FIG. 5.



Witnesses:
William D. Bourne.
John E. Parker

Inventor:
William Wharton, Jr.
by his Attorneys
Howson and Sons

UNITED STATES PATENT OFFICE.

WILLIAM WHARTON, JR., OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR
TO WILLIAM WHARTON, JR., & CO., (LIMITED,) OF SAME PLACE.

RAILWAY.

SPECIFICATION forming part of Letters Patent No. 359,117, dated March 8, 1887.

Application filed November 19, 1886. Serial No. 219,372. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM WHARTON, Jr., a citizen of the United States, residing in Philadelphia, Pennsylvania, have invented certain Improvements in Railways, of which the following is a specification.

The object of my invention is to so construct the cross-ties and chairs of a railway-track as to provide firm and secure support for the chairs, and also to provide a convenient and accurate means for adjusting and maintaining the rails at their proper gage.

In the accompanying drawings, Figure 1 is a side view of a cross-tie and chairs embodying my improvement and showing the rails in section. Fig. 2 is a side view, drawn to an enlarged scale, of one end of the tie, with the chair and the rail. Fig. 3 is a view at right angles to Fig. 2. Fig. 4 is a view of a modification, and Fig. 5 is a view of another modification.

In the construction of metallic ties and chairs it is very difficult to make and fit the separate parts together precisely alike, so as to have the rails of an accurate and uniform gage apart. To meet this difficulty, and also to provide a firm and secure support for the rails, I construct the tie with an upwardly-projecting rib, and provide such a connection between the chairs and the rib as to permit the chairs to be moved along the tie after the bolts have been inserted and before the tightening up of their nuts, so that the chairs can thus be adjusted to the required extent toward or from each other on the tie, and after the rails are in this way put to accurate gage the nuts can be screwed tight, thus securing the whole accurately and firmly in the proper position.

In the construction illustrated in Figs. 1, 2, and 3 the tie A is shown in the form of an inverted T-bar, the web *a* of which forms the upwardly-projecting flange or rib before referred to.

The chairs B, to which the rails E are secured in any usual manner, are shown as straddling the flange or rib *a* of the cross-tie and resting on the flat base of the cross-tie.

The pin or bolt F, for securing the chair to

the tie, passes through openings in the chair and in the rib or flange *a* of the tie, (preferably in the upper part of the rib,) and in this case the openings in the chair are in the form of horizontal slots *f*, so that the chair with its rail may be adjusted on the cross-tie to the proper position for the desired gage of the track.

It is not necessary to have both chairs on each tie adjustable, as the adjustability of one will suffice to compensate for variations in construction.

Instead of constructing the chair to straddle the upright flange of the cross-tie, it may be made to abut against one side thereof only, as illustrated in the modification, Fig. 4, in which the cross-tie itself is shown as being made of an angle-bar instead of a T-bar. In this construction the slot to permit of the adjustment of the chair upon the tie may be either in the flange of the tie or in the chair, or the slot may be both in the flange and the chair.

Instead of using a pin or bolt to secure the chair to the tie, other means may be employed—as, for instance, wedge-shaped keys may be driven through slots in the chair and in the flange of the tie, so as to produce the desired result of proper adjustment and security of position.

I claim as my invention—

1. A railway cross-tie having an upright rib, in combination with a chair extending on the side of the rib and having its bearing on the base of the cross-tie and adjustably secured to the rib, substantially as set forth.

2. A railway cross-tie in the form of an inverted T-bar, in combination with a chair extending on each side of the rib of said cross-tie and adjustably connected thereto, substantially as specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WILLIAM WHARTON, JR.

Witnesses:

WILLIAM D. CONNER,
HARRY SMITH.