

W. H. BROWN.  
RAIL HOLDER.  
APPLICATION FILED MAR. 11, 1910.

959,451.

Patented May 31, 1910.

Fig. 1.

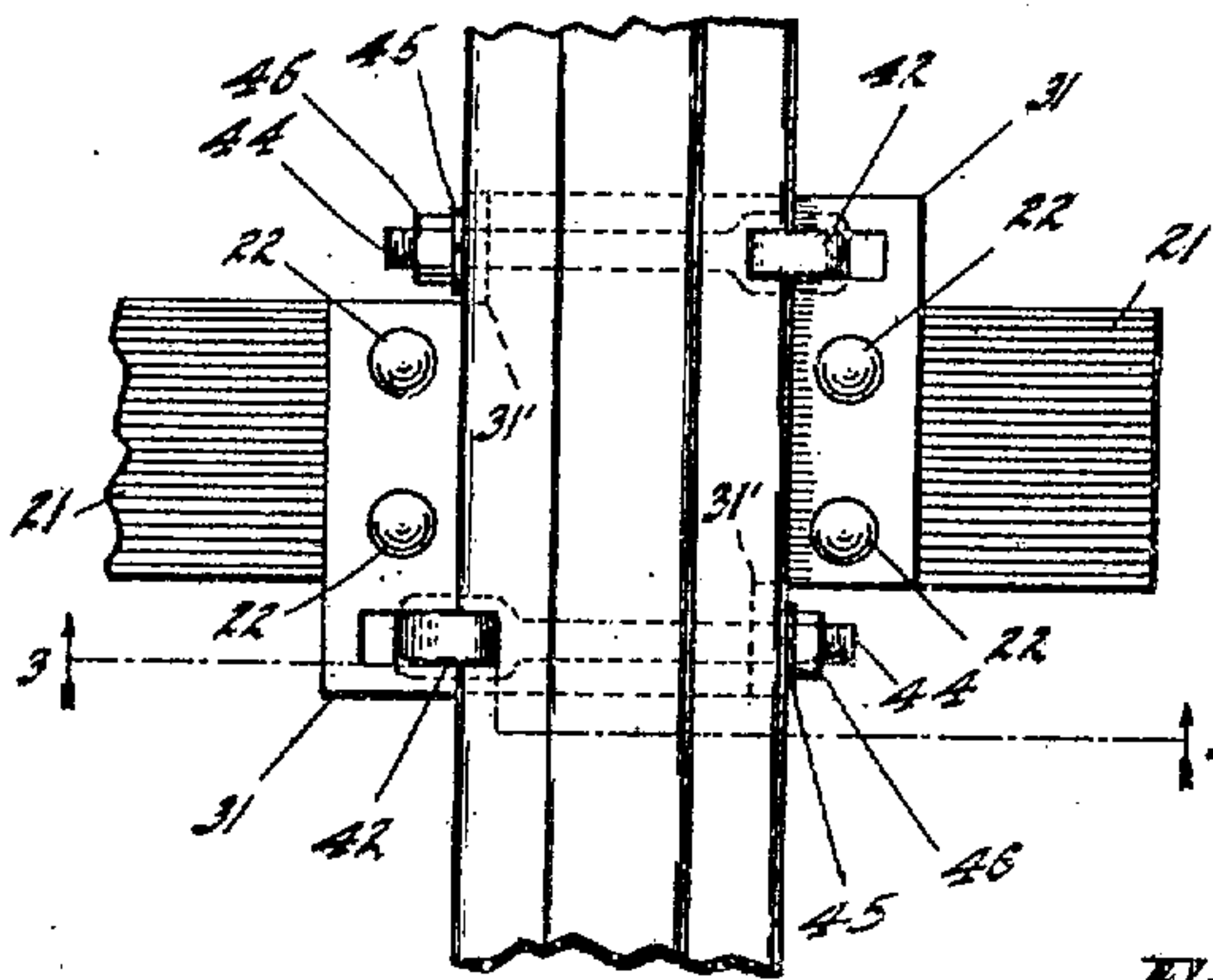


Fig. 2.

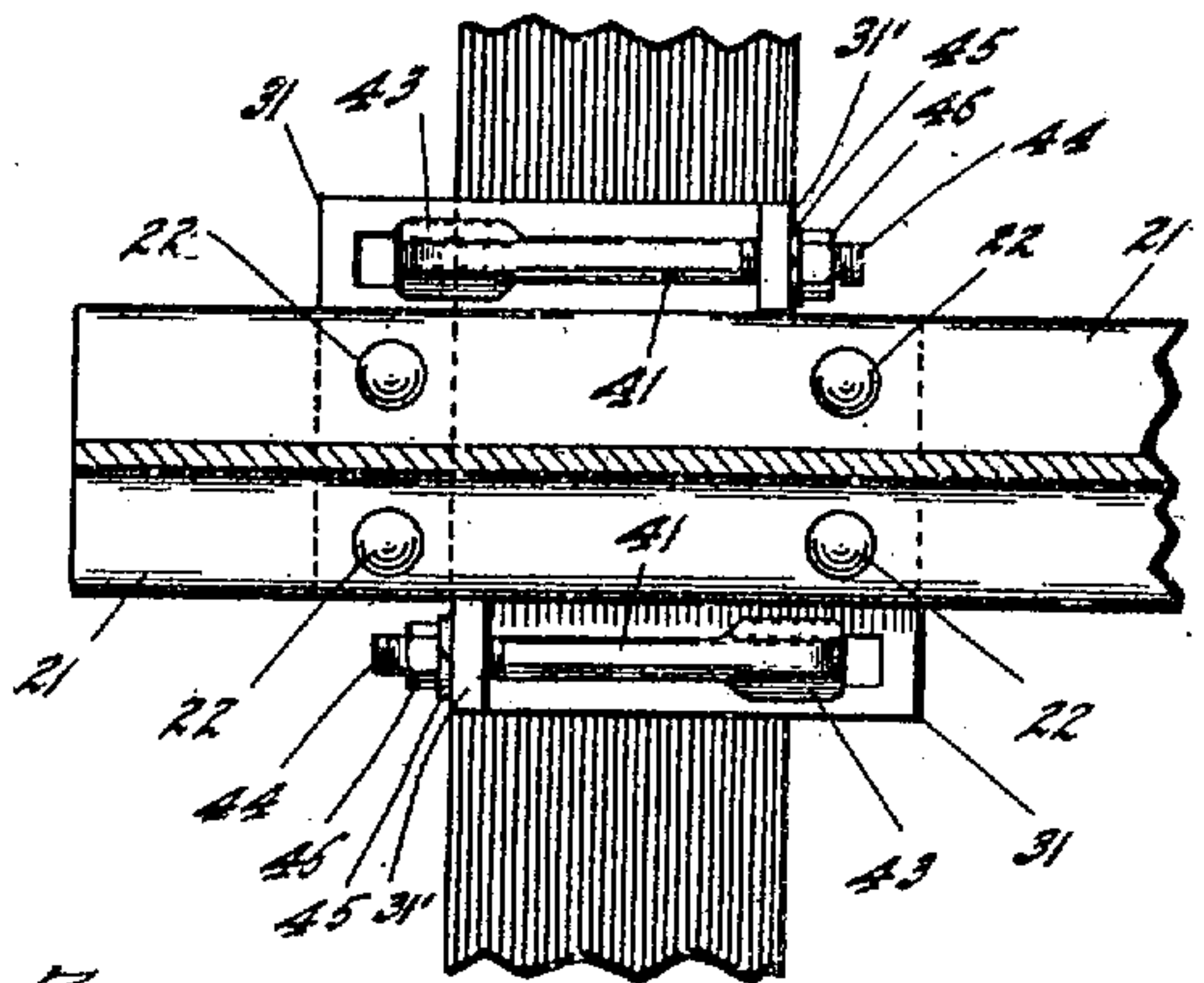


Fig. 7.

Fig. 3.

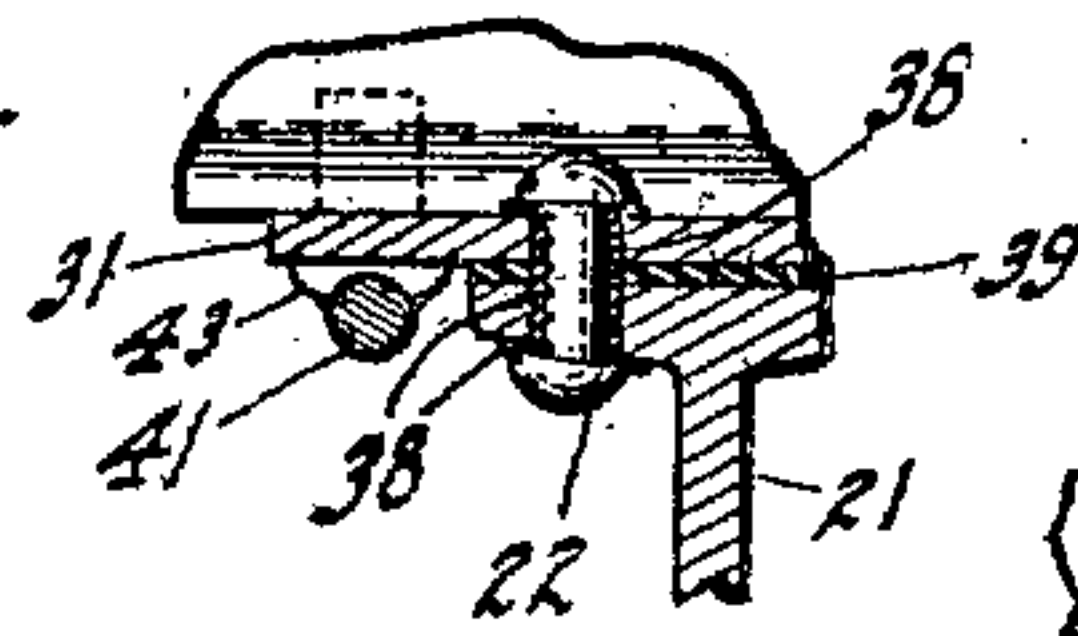


Fig. 4.

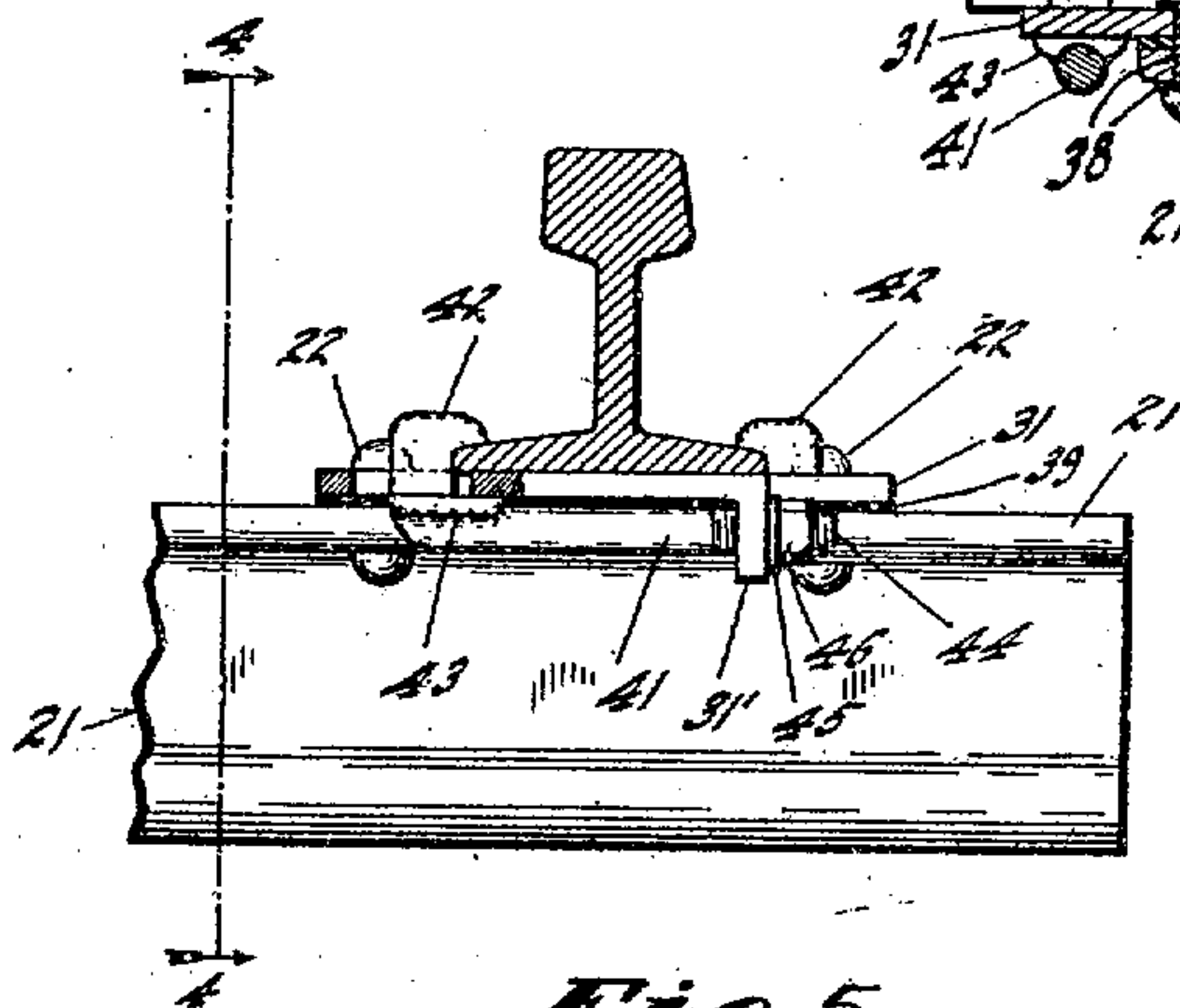
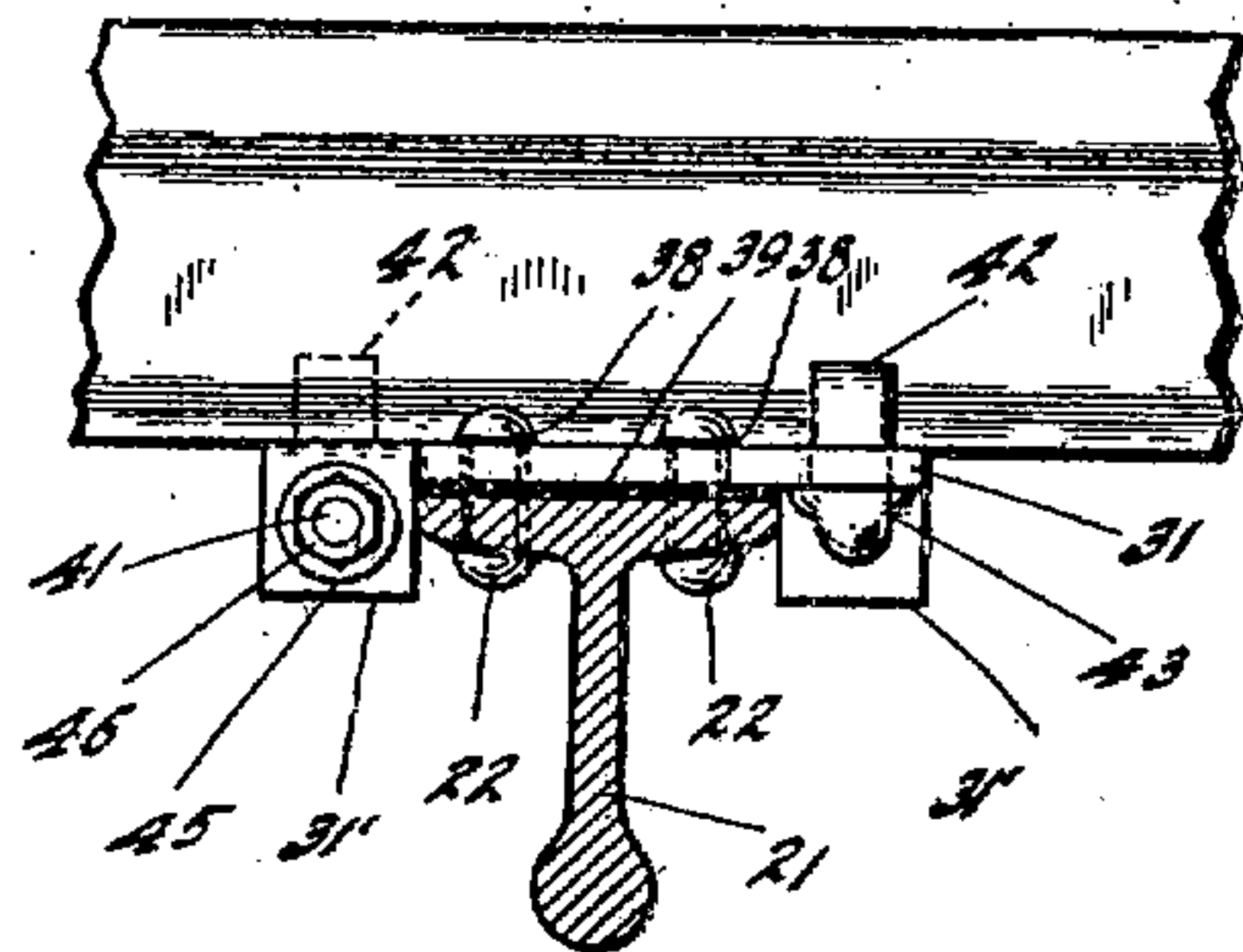
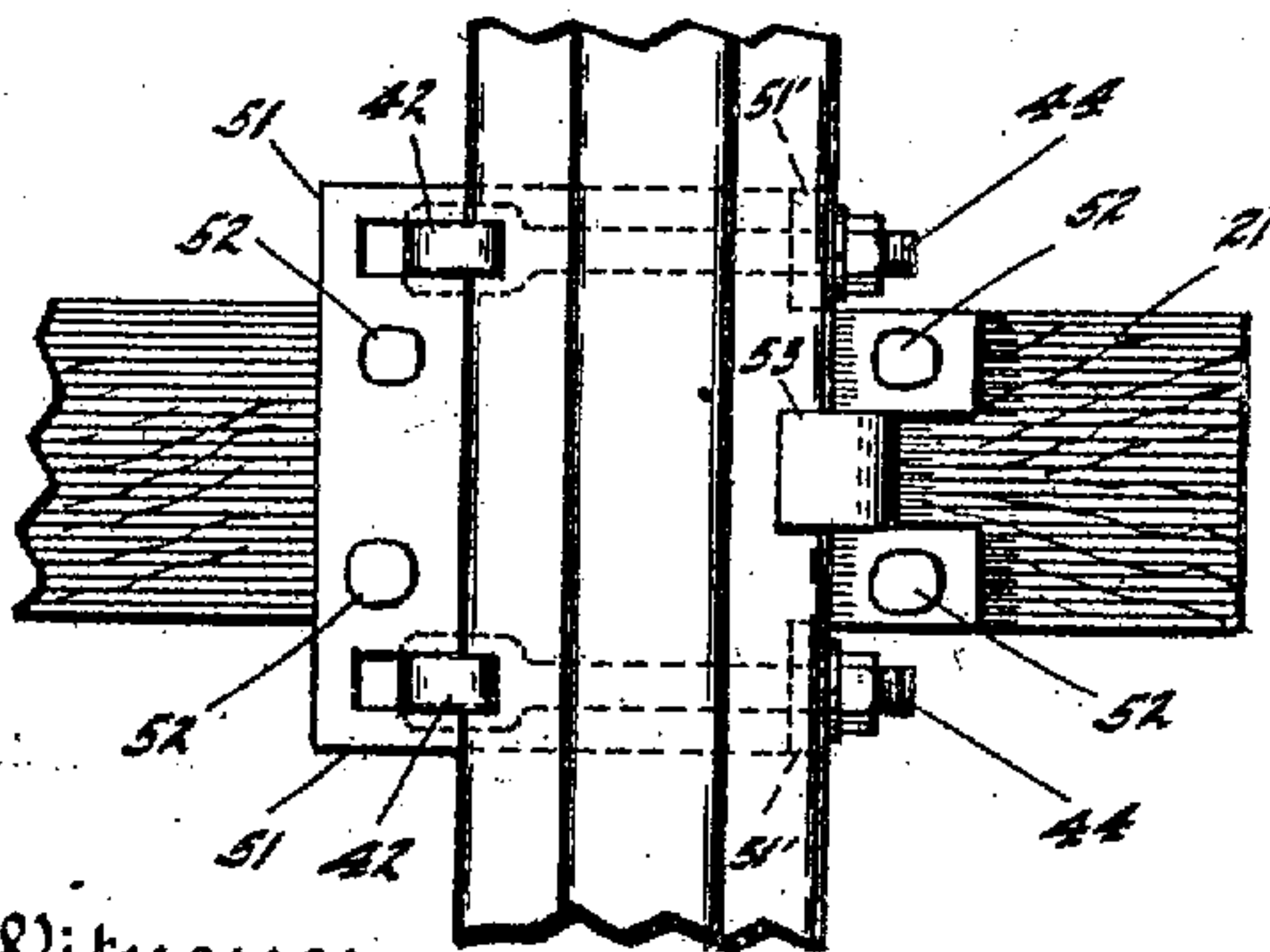
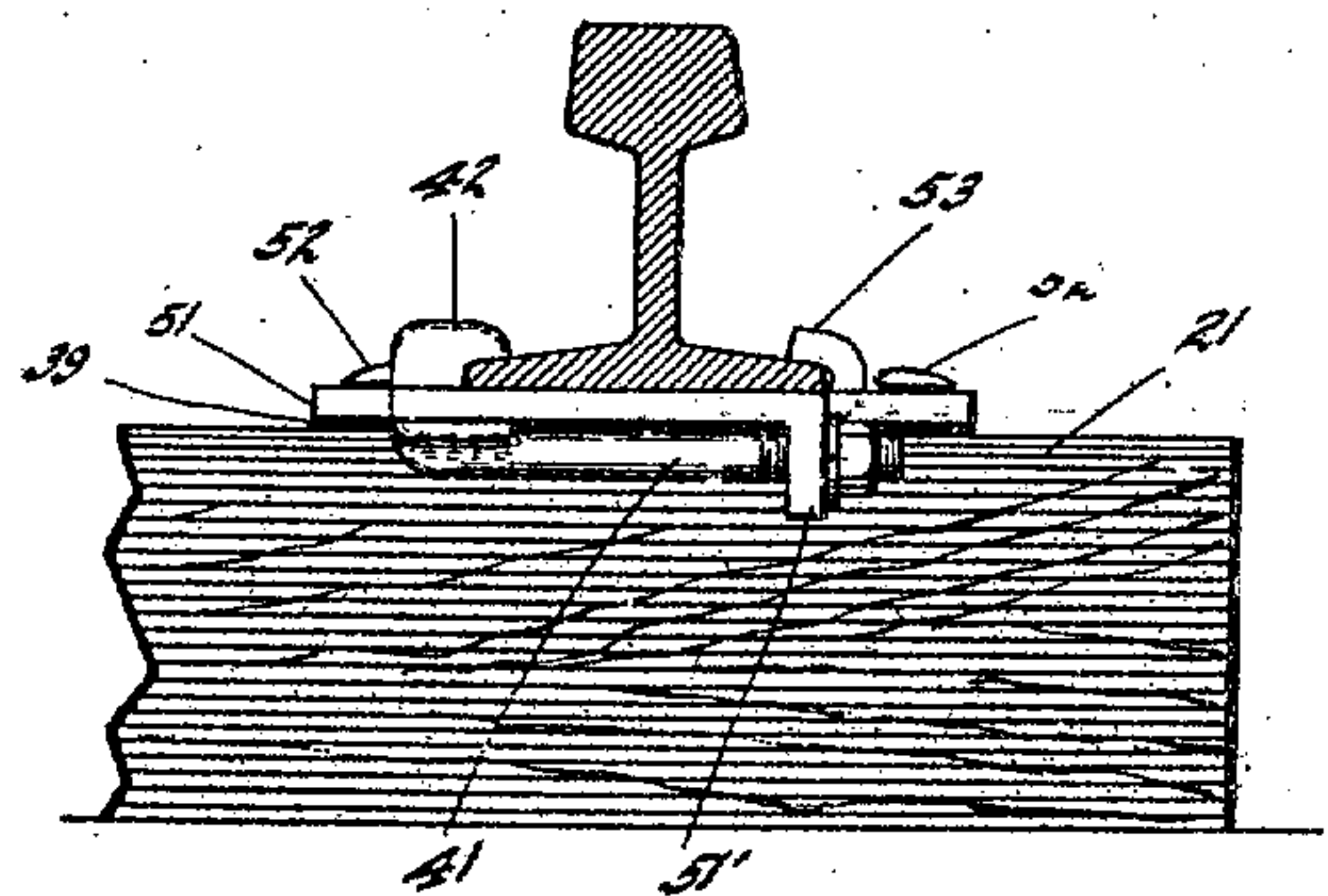


Fig. 5.

Fig. 6.



Witnesses  
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# UNITED STATES PATENT OFFICE.

WILLIAM H. BROWN, OF INDIANAPOLIS, INDIANA.

## RAIL-HOLDER.

959,451.

Specification of Letters Patent.

Patented May 31, 1910.

Application filed March 11, 1910. Serial No. 548,599.

*To all whom it may concern:*

Be it known that I, WILLIAM H. BROWN, a citizen of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented a new and useful Rail-Holder, of which the following is a specification.

The object of my present invention is to provide a means whereby rails of various sorts, such as railroad rails, may be firmly and strongly secured to the ties or beams upon which they are placed.

Said invention consists in a plate designed to be placed between the tie or beam and the rail carried thereby, means for securing said plate to the tie or beam, and hooked bolts mounted in the plate and adapted to engage the flanges of the rail, as will be hereinafter more particularly described and claimed.

Referring to the accompanying drawings, which are made a part hereof, and on which similar reference characters indicate similar parts, Figure 1 is a top or plan view of a fragment of a railroad rail and the tie to which it is secured provided with my improved attaching means; Fig. 2 an under-side plan view thereof; Fig. 3 a sectional view as seen when looking in the direction indicated by the arrows from the broken line 3 3 in Fig. 1; Fig. 4 a sectional view as shown when looking in the direction indicated by the arrows from the broken line 4 4 in Fig. 3; Figs. 5 and 6, views similar to Figs. 1 and 3 but illustrating an alternative construction, and Fig. 7 a detail view at one of the rivets showing how the same may be insulated.

The tie or beam 21 is or may be of any usual desired construction. If of wood, as in the case of the ordinary railroad tie, the plate is secured thereto by spikes, as 52; if of metal, as in the case of a beam or a metal tie, then the plate of my improved fastener is usually secured thereto by bolts or rivets, as 22. In the form shown in Figs. 1 to 4 inclusive I have illustrated a metal beam as the support. In the alternate construction, I have indicated ordinary wood railroad ties.

My improved fastener consists essentially of a metal plate 31, primarily of rectangular form, but, when finished for use as a part of my improved fastener, having one or more of its corners cut and bent to form downwardly extending flanges 31' or 51', as

shown in the drawings. This plate is perforated for the spikes, bolts or rivets by which it is to be secured to the supporting beam or tie, and it is also provided with slots opposite the turned-down portions just referred to through which the hooked ends of the clamping bolts pass. The turned-down portions are also perforated and the threaded ends of the bolts pass through these perforations.

The bolts 41 are hook-shaped at one end, and are threaded at the other to receive ordinary nuts. The hook-shaped portions 42 extend up through the slots in the plates and engage with the flanges of the rails as shown. Just below the hook-shaped portions and substantially parallel with the upper sides of the bolts are flanges 43 which extend out under the surface of plate 31 alongside the slots therein, and thus the hooked end of the bolt is held firmly downward by the plate, and any tendency to bend up is prevented, while at the same time the hooked ends are more certainly and firmly drawn down onto the flanges of the rails. The threaded ends 44 pass through the perforations in the turned-down portions 31', and are provided with washers and nuts 45 and 46 in an ordinary and well-known manner.

In the preferred form of my device, illustrated in Figs. 1 to 4 inclusive, these bolts are disposed to draw oppositely to each other. The slots through which the hooked ends pass being of greater length than the hooked ends themselves, the rail may be drawn in either direction by loosening the nut on one of the bolts and tightening the nut on the other bolt. This enables me to provide for a very accurate adjustment of the rail upon its support.

In the form illustrated in Figs. 5 and 6 the plate 51 is similar to plate 31 which has just been described, but the turned-down corners 51' are both at one side of the plate instead of at diagonally opposite corners as in the preferred form. A central tongue 53 is also turned upwardly and forms an abutment and clamp for one side of the rail. The bolts used in this form are precisely similar to those used in the other form, and operate in the same manner, except that the accurate positioning of the rail consequent upon the loosening of one bolt and tightening of the other is of course not possible to this arrangement. The holder plate 31 may be insulated from the support in cases where



the latter is metal, by inserting a thickness of insulating material 39, and surrounding the bolts or rivets with insulating sleeves, as 38, see Fig. 7, for purposes which will be obvious.

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

1. The combination, with a rail and its support, of a fastener for securing the rail to the support, consisting of a plate having down-turned portions and slots therein, and hooked bolts the hooks whereof pass up through said slots and engage with a flange on the rail and the threaded ends whereof pass through perforations in the down-turned portions of the plate, whereby when the bolts are tightened the rail is gripped firmly onto the plate.

2. The combination, with a rail and its support, of a fastener whereby the rail is secured to the support, comprising a plate having portions at diagonally opposite corners turned downwardly and perforated, and also having slots therein opposite said down-turned portions, hooked bolts, the hooks thereof are adapted to pass up

through the slots and engage with the flanges on the rail, and the threaded ends of which are adapted to pass through the perforations in the down-turned portions of the plate, the bolts being thus disposed to operate oppositely to each other, whereby an exact adjustment of the rail on the support may be secured.

3. The combination, with a rail and its support, of a fastener for securing the rail to the support comprising a slotted plate, hooked bolts adapted to pass through the slots in the plate and engage with the flanges of the rail, said bolts being also provided with flanges adapted to bear against the under side of the plate alongside the slots therein and thereby hold the hooked portions of the bolts more securely against the flanges of the rail.

In witness whereof, I have hereunto set my hand and seal at Indianapolis, Indiana, this eighth day of March, A. D. one thousand nine hundred and ten.

WILLIAM H. BROWN. [L. S.]

Witnesses:

CHESTER BRADFORD,  
THOMAS W. McMEANS.