

No. 888,167.

PATENTED MAY 19, 1908.

R. HEINEN.

TRACK RAIL.

APPLICATION FILED SEPT. 6, 1907.

3 SHEETS—SHEET 1.

Fig. 1.

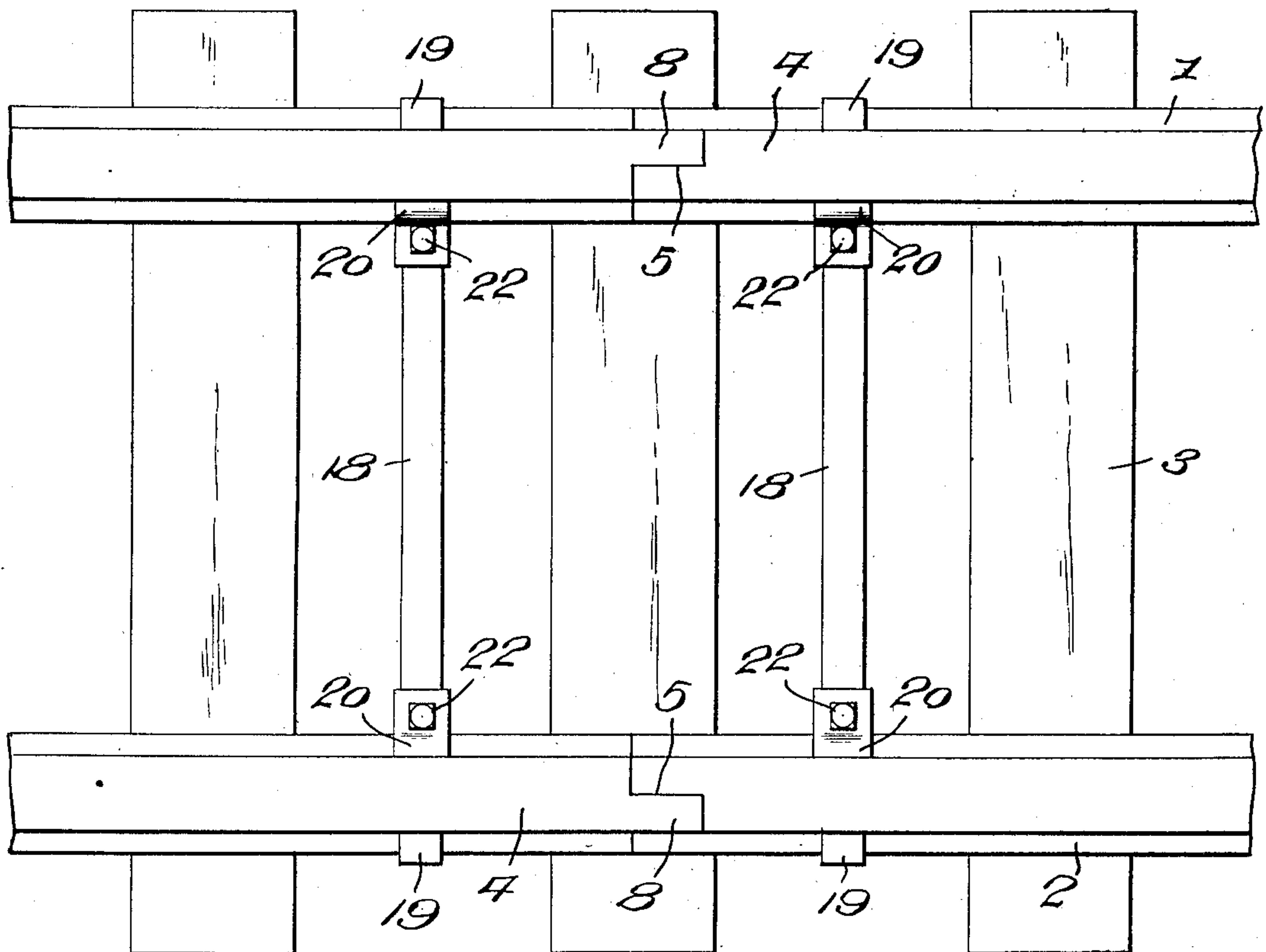
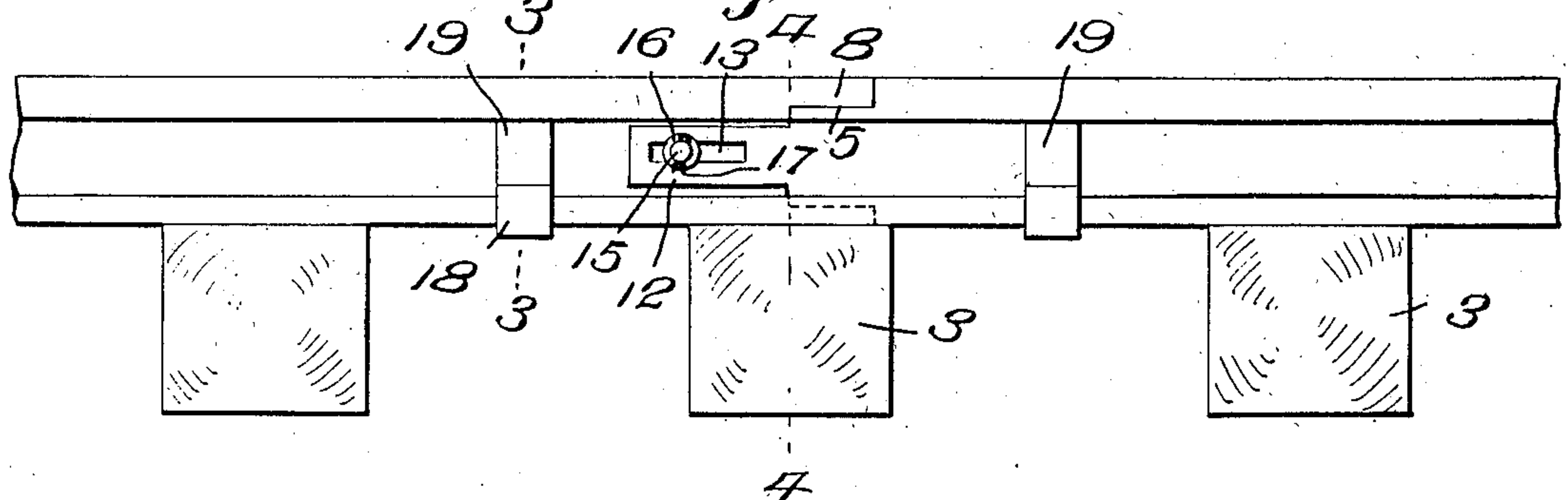


Fig. 2.



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3 SHEETS—SHEET 2.

Fig. 3.

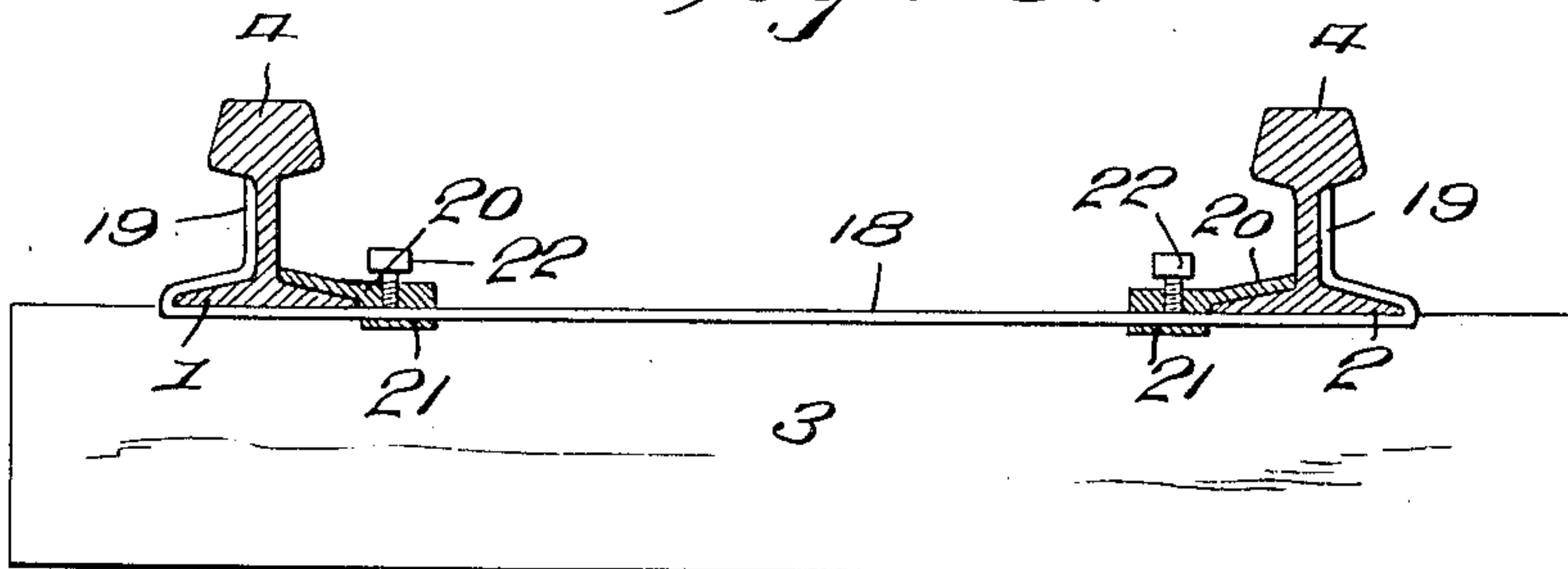


Fig. 5.

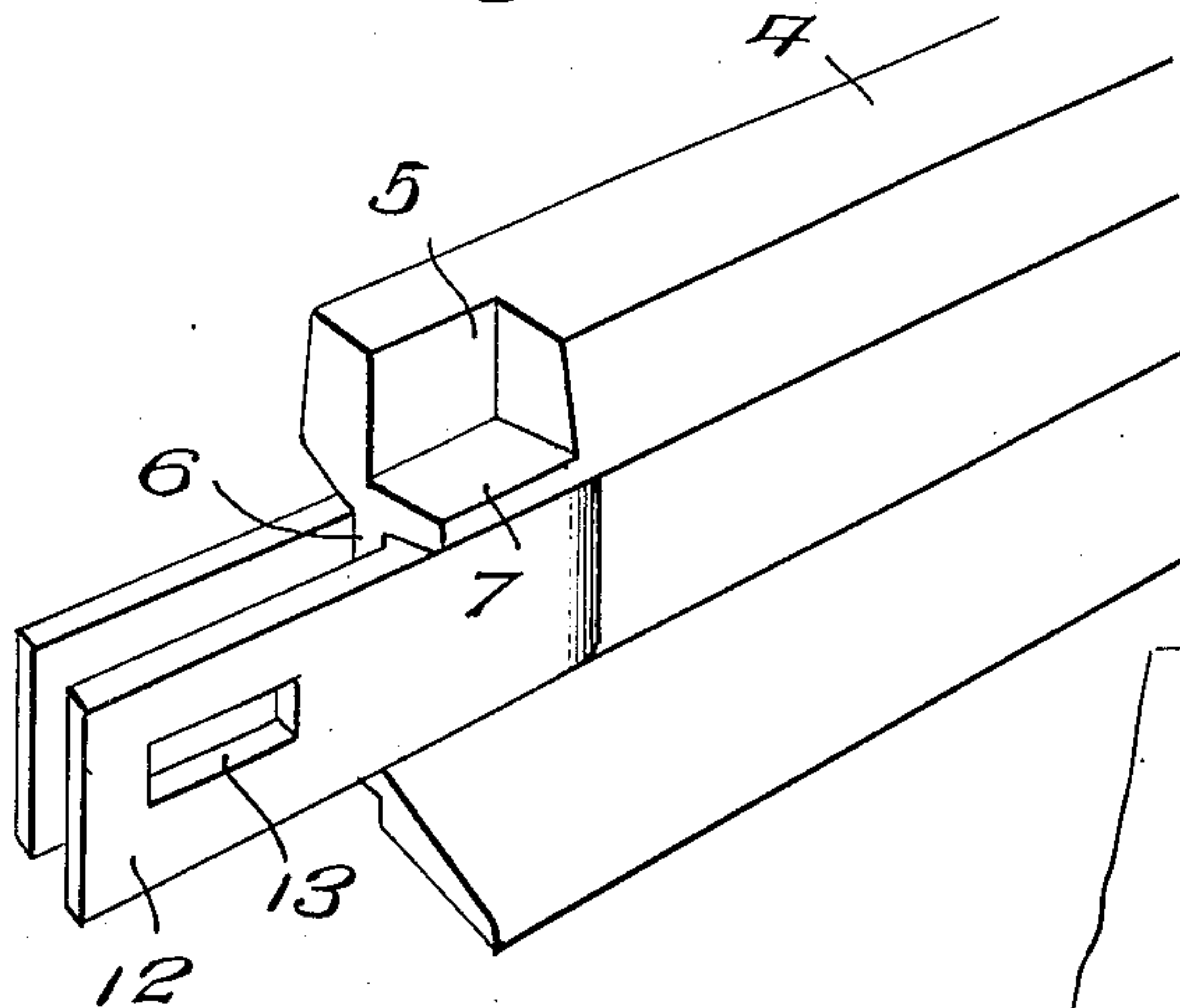


Fig. 4.

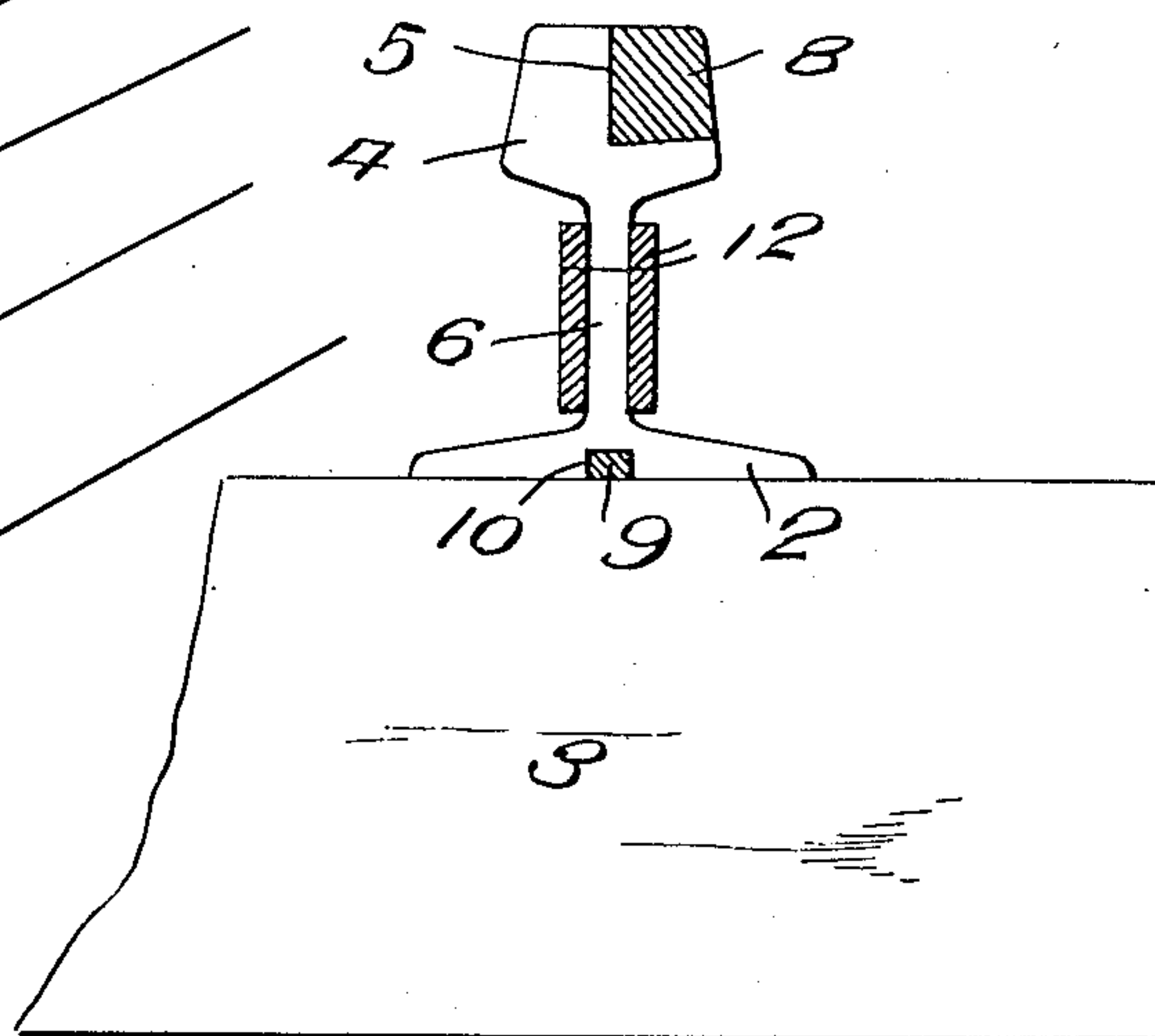


Fig. 6.

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3 SHEETS—SHEET 3.

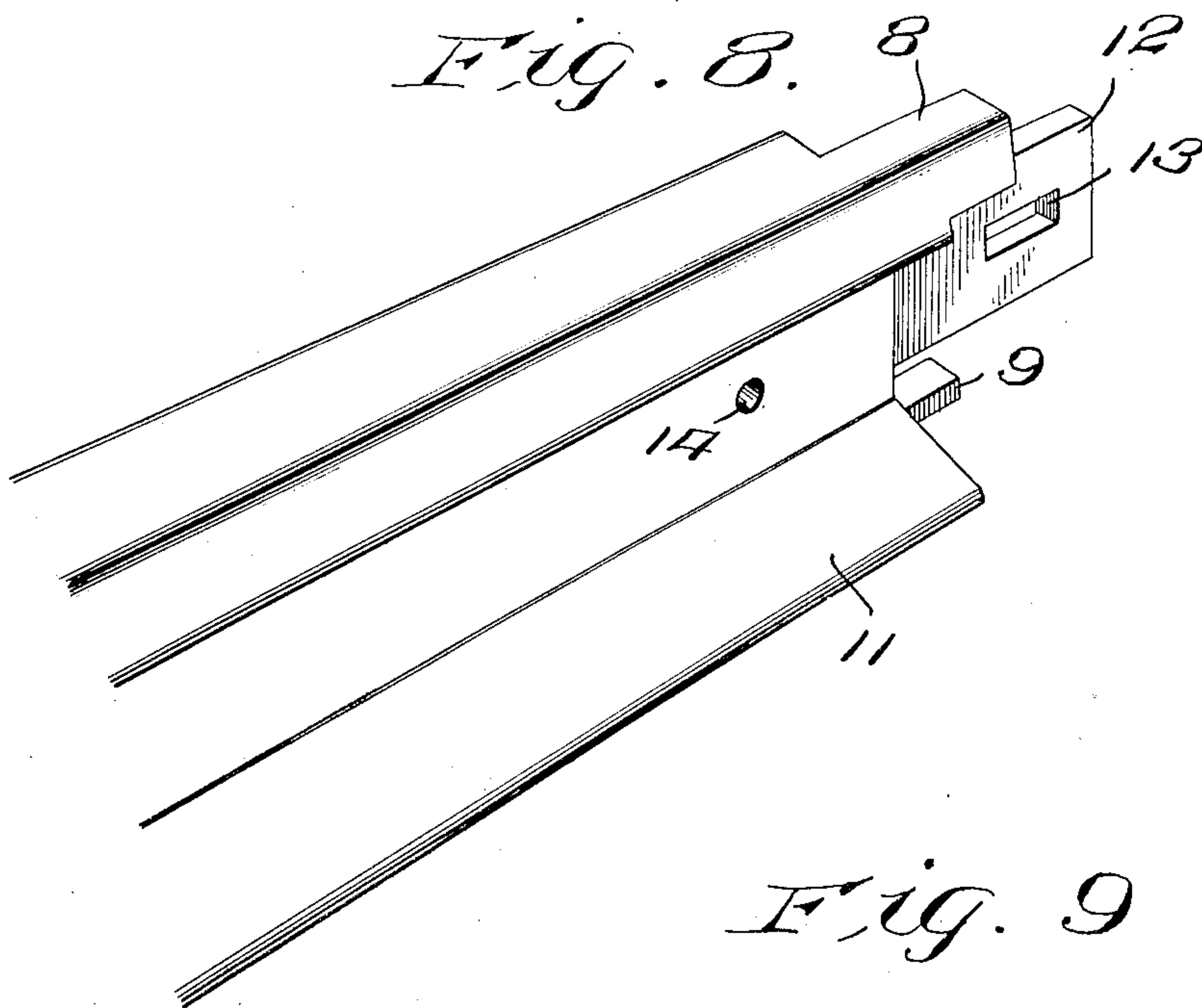
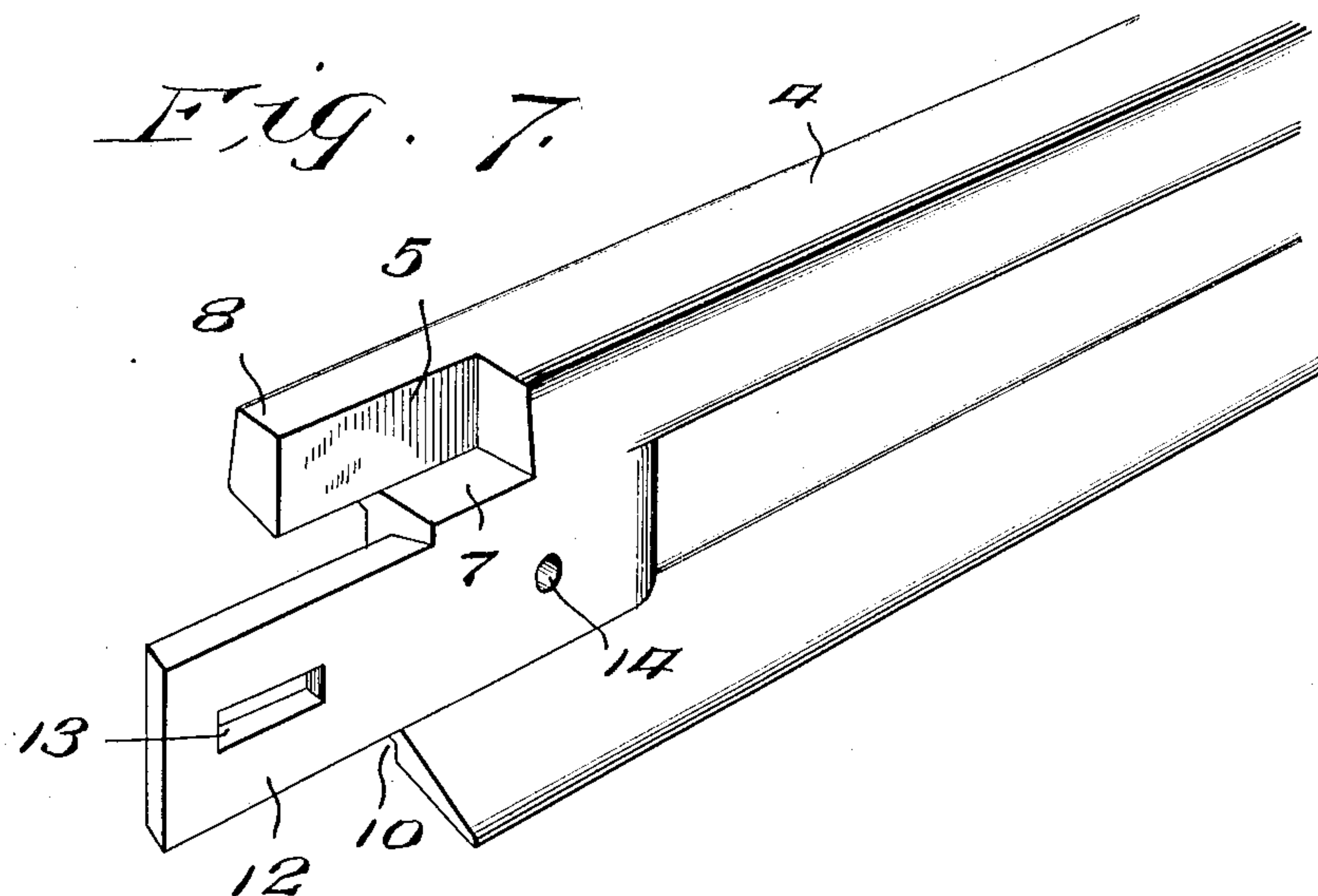


Fig. 9

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RICHARD HEINEN, OF SPRINGRANCH, NEBRASKA.

TRACK-RAIL.

No. 888,167.

Specification of Letters Patent.

Patented May 19, 1908.

Application filed September 6, 1907. Serial No. 391,645.

To all whom it may concern:

Be it known that I, RICHARD HEINEN, a citizen of the United States, residing at Springranch, in the county of Clay and State of Nebraska, have invented certain new and useful Improvements in Track-Rails; 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 the same.

My invention relates to new and useful improvements in track rails, and my object is to provide means for securing the ends of the track rails together.

A further object is to provide means for bracing the track rails at their point of juncture and hold the same at a pre-determined distance apart and a still further object is to provide means for bracing the outer faces of the rails to prevent spreading of the same.

Other objects and advantages will be hereinafter referred to and more particularly pointed out in the claims.

In the accompanying drawings which are made a part of this application, Figure 1 is a top plan view of a portion of a track way, showing my improved form of rails in position thereon. Fig. 2 is a side elevation thereof. Fig. 3 is a sectional view, as seen on line 3—3, Fig. 2. Fig. 4 is a sectional view on an enlarged scale, as seen on line 4—4, Fig. 2. Fig. 5 is a detail perspective view of one end of one of the rails. Fig. 6 is a detail perspective view of the opposite end of the rail. Figs. 7 and 8 are perspective views of the opposite ends of the rail, showing a slightly modified form of construction, and, Fig. 9 is an end elevation of a brace member employed for preventing the rails from spreading.

Referring to the drawings in which similar reference numerals designate corresponding parts throughout the several views, 1 and 2 indicate the track rails, such as are employed for supporting rolling stock and 3 indicates the usual form of ties employed to support the track rails, said rails being secured to the ties in any preferred manner.

In order to readily secure the meeting ends of the rails together and obtain a perfect union of the same, the head portion 4 of one end of the rail is provided with a notch 5, which extends substantially one-half the width of the head and to a point adjacent

the web 6 of the rail, a portion of the head 4 being left above the web to form a ledge 7, while the opposite end of the rail is provided with an extension 8, which is adapted to snugly fit the notch 5 of the next succeeding rail and it will be seen that by overlapping portions of the heads of the rails, the jar, coincident to the train passing over the joints, will be practically eliminated. A finger 9 also extends from that end of the rail containing the extension 8 and enters a channel 10 in the next succeeding rail, the finger extending from the flange 11 of the rail and in alinement with the bottom face of the flange, the channel 10 being likewise located at the center of the flange and at the lower side thereof.

The meeting ends of the rails are secured together by providing a plate 12 for each side of the rail and at that end thereof containing the notch 5, said plates being preferably formed integral with the web 6 and extended beyond the end of the rail to receive the web of the next succeeding rail, the free ends of said plates being provided with longitudinally disposed registering slots 13, through which, and a bore 14 in the web of the rail between the plates, extends a locking bolt 15, said bolt being secured in position through the slots and bore by introducing a washer 16 over the end of the bolt and securing the same thereon by means of a cotter pin 17, but, if desired, said bolt may be secured in position in any preferred manner.

The object in providing the slots in the plates 12, is to compensate for the contraction and expansion of the rails, and it will be clearly seen that by providing the plates as shown, the one bolt will be sufficient to secure the meeting ends of the rails together and it will also be seen that the usual form of fish plates may be dispensed with.

As shown in Figs. 7 and 8, instead of securing both of the plates to one end of the rail and entering the opposite end of the next succeeding rail therebetween, one of the plates is carried by one rail and the opposite plate by the next succeeding rail, in which instance, each of the rails is provided with a bore 14, through which the locking bolts 15 extend, and by placing a single plate 12 immediately below the ledge 7 and forming the same integral therewith, the rail at this point is materially reinforced and, if desired, both ends of the rails may be provided with the extensions 8 and corresponding

notches 5 to receive the same, thereby materially reinforcing the rails and adding rigidity thereto at their meeting ends.

In order to hold the rails from spreading, 5 or becoming weakened at their point of union, I provide brace bars 18, which are adapted to extend below the track rails and have their ends bent inwardly and upwardly to engage the upper surface of the flanges of 10 the rails and the vertical portions 19 thereof rest against the outer face of the web 6 and engage the lower edge of the heads 4, the vertical portions serving to brace the rails and prevent them from inclining outwardly 15 and in order to secure the rails in engagement with the end portions of the bars, a keeper 20 is provided for each rail and extended over the opposite edge of the flange from that occupied by the inwardly directed portion of the bars, the keeper having a socket through 20 the body portion thereof, through which the bar extends and in order to lock the keeper into engagement with the flange of the rail, a binding bolt is threaded into an opening in 25 the body portion of the keeper and is adapted to engage the bar and lock the keeper in its adjusted position, or that form of brace shown in Fig. 9 may be used, if preferred.

It will thus be seen that I have provided a 30 very cheap and economical form of rail and one that can be readily secured together to form a track-way. It will further be seen

that by providing the plates at one end of the rail, to receive the next succeeding rail, the usual form of fish plates may be dispensed 35 with and the rails secured together with but a single bolt, and that by providing the slots in the plates, longitudinal adjustment of the rails may be had, co-incident to contraction and expansion of the metal and it will further 40 be seen that I have provided a very cheap and efficient means for bracing the rails and preventing spreading of the same.

What I claim is:

In combination, a rail having a notch in 45 the head thereof at one end, said notch extending approximately one-half the width of the head and to a point adjacent the web of the rail, said rail having a channel in the base thereof, a second rail having an extension to 50 fit within the notch of the first named rail, a finger carried by the second named rail positioned beneath the extension thereof for entering the channel of the first named rail, and means for tying the rails one to the 55 other.

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

RICHARD HEINEN.

Witnesses:

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G. E. GLEETS.