

No. 767,089.

PATENTED AUG. 9, 1904.

T. C. THOMAS.

COMBINED RAILWAY TIE AND ANTI RAIL SPREADER.

APPLICATION FILED OCT. 31, 1903.

NO MODEL.

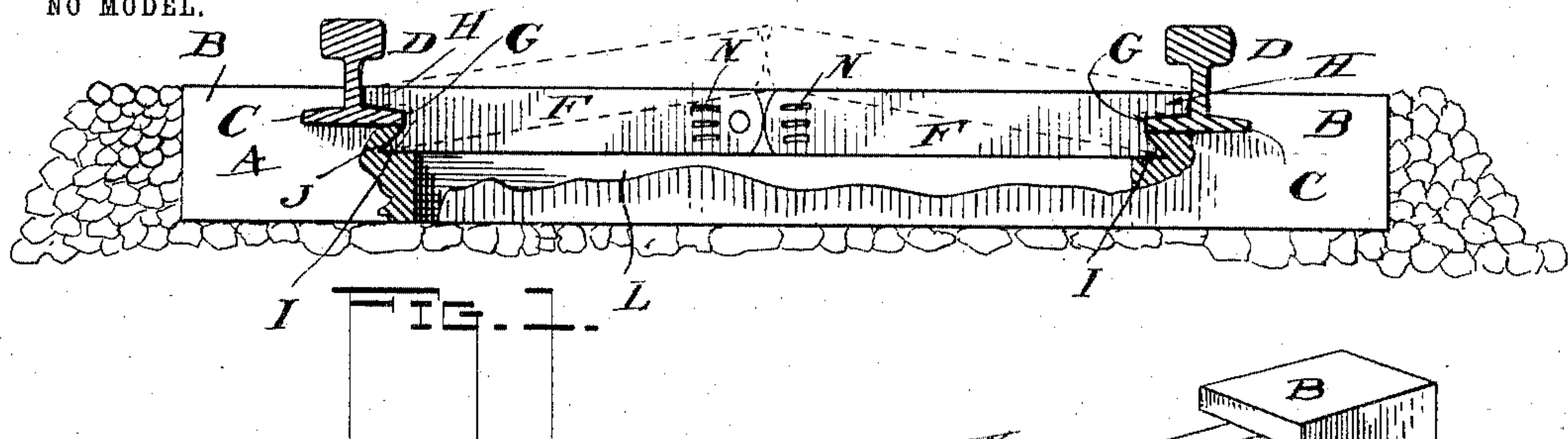


FIG. 2.

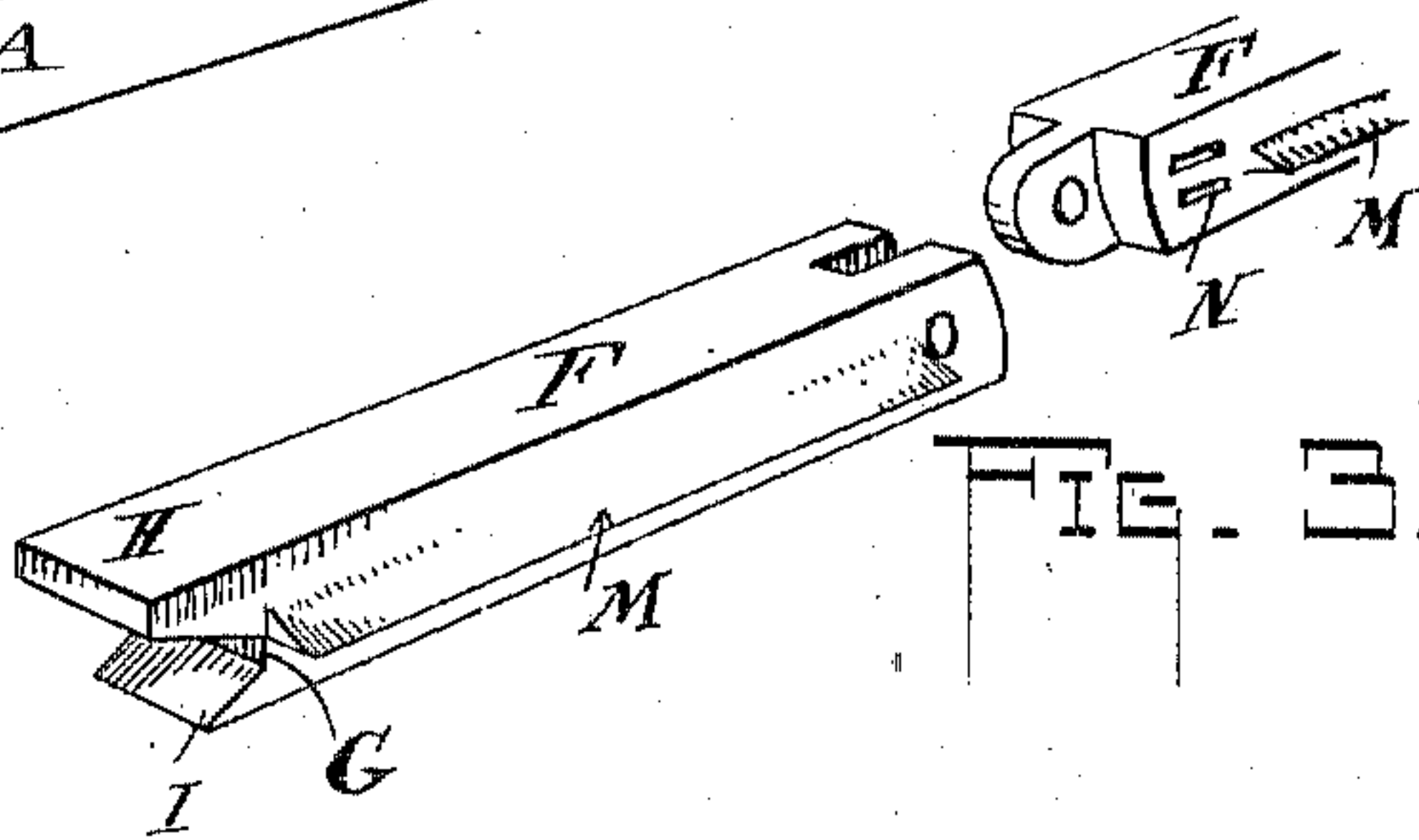
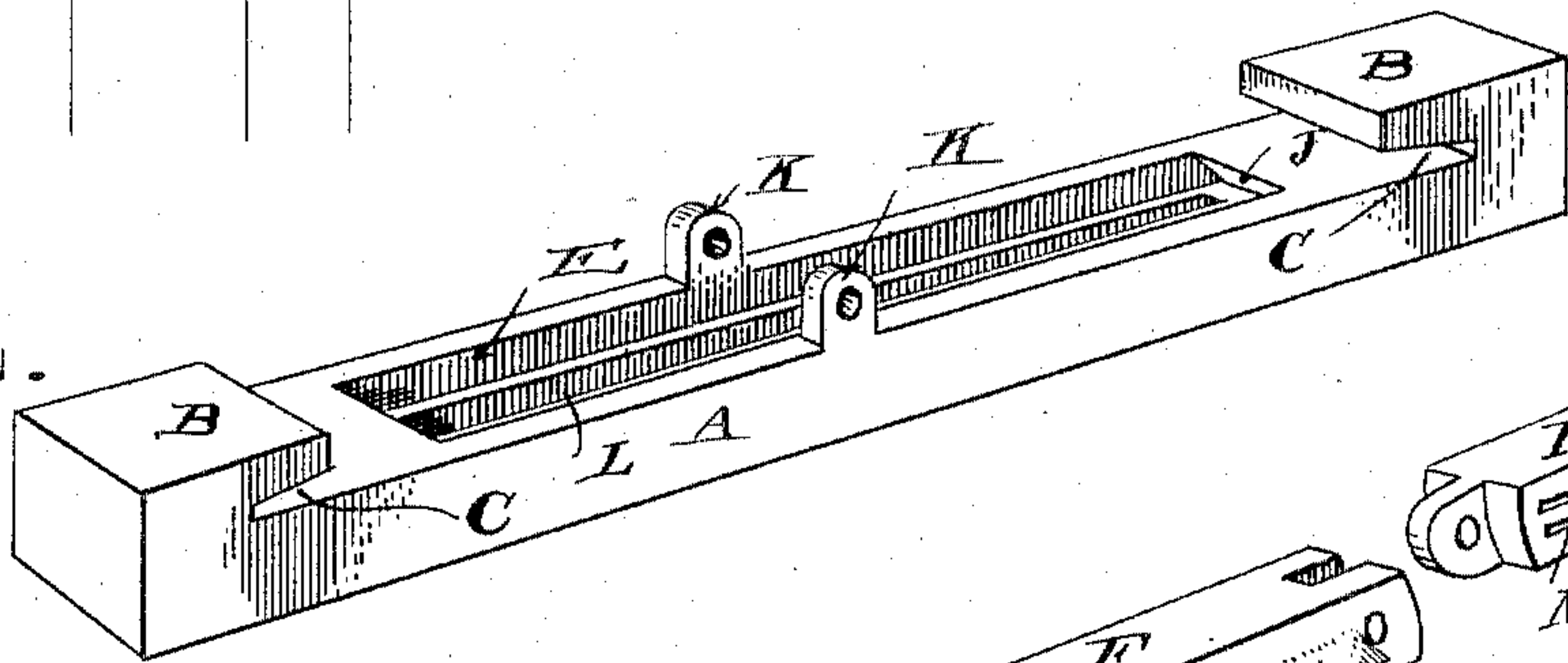


FIG. 3.

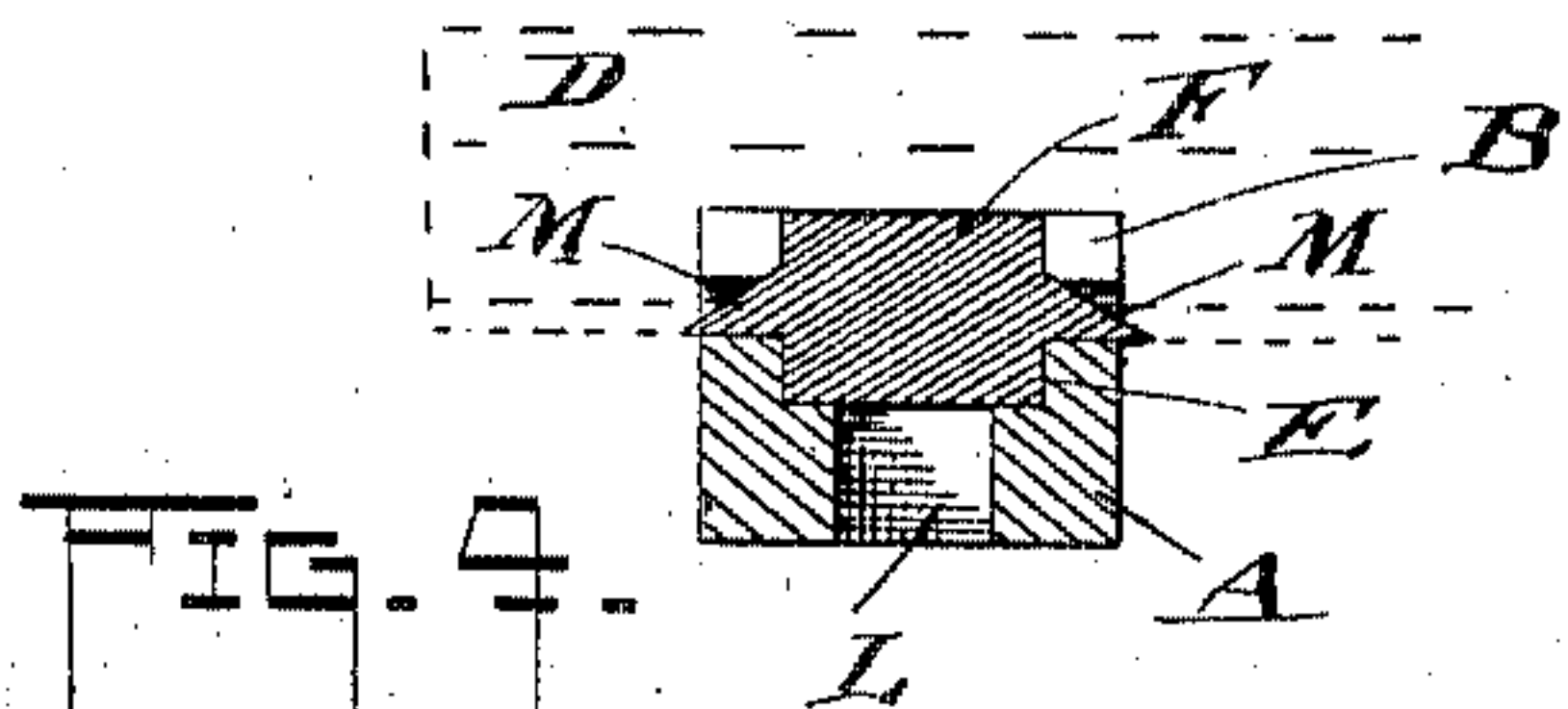


FIG. 4.

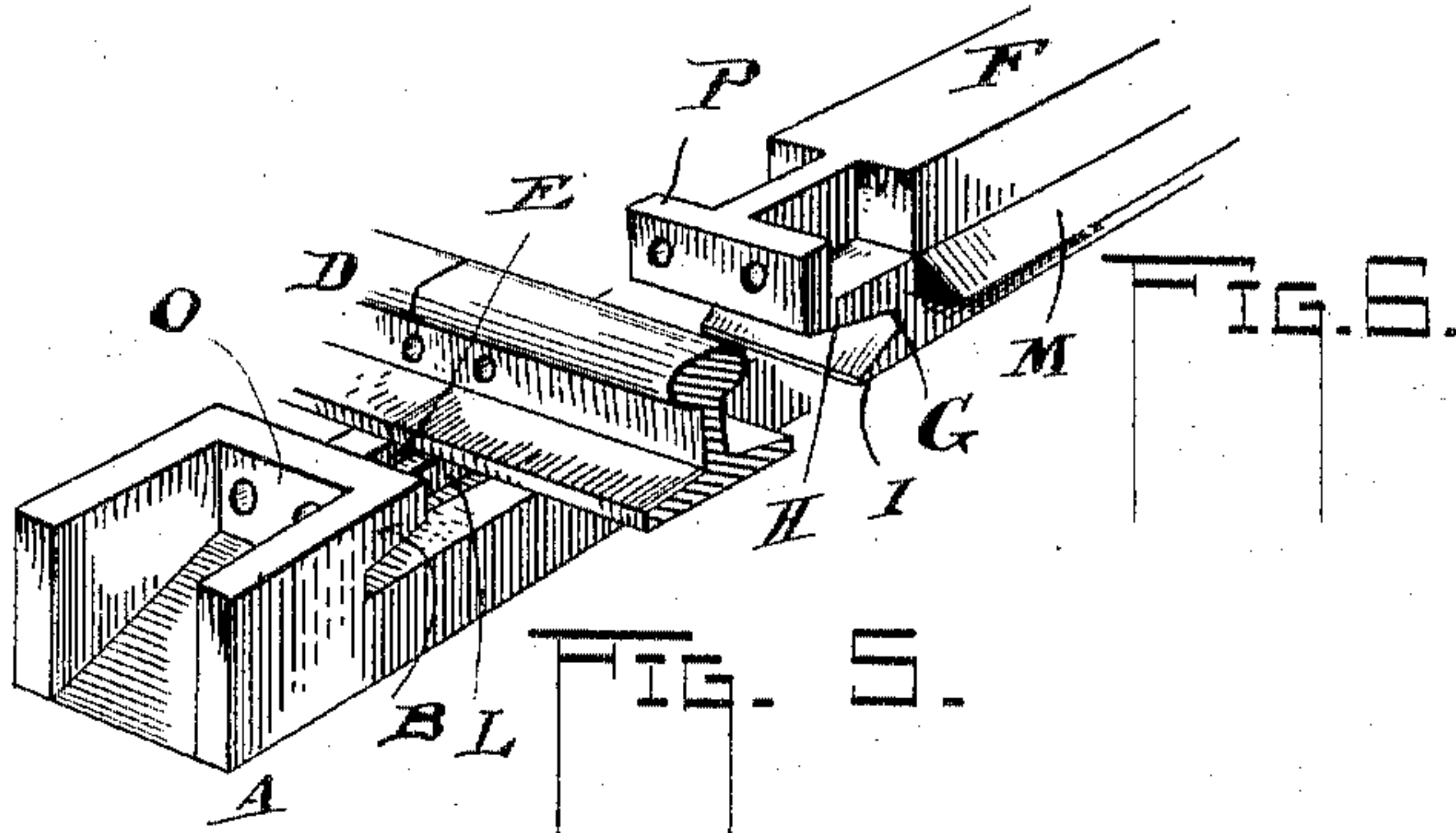


FIG. 5.

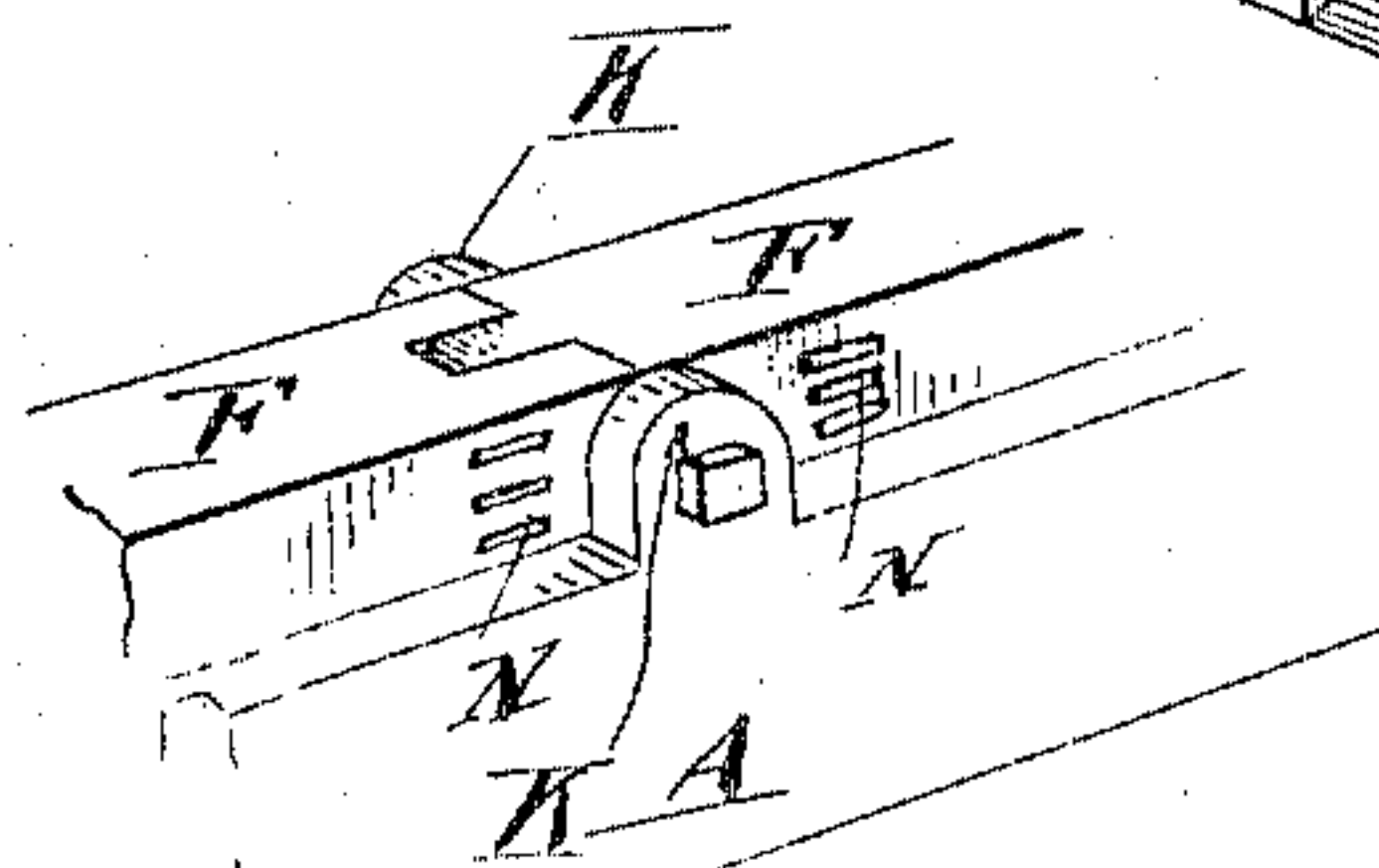


FIG. 6.

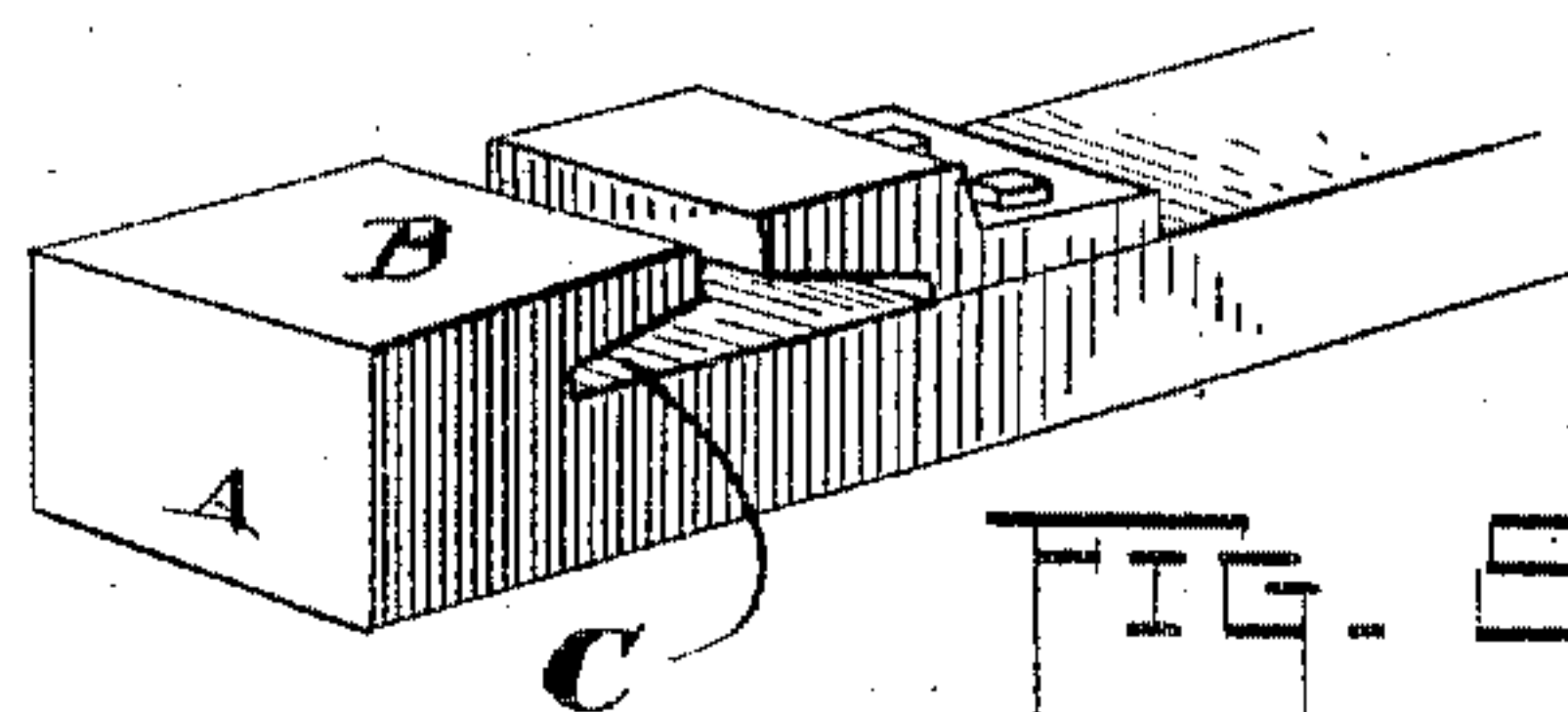


FIG. 7.

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COMBINED RAILWAY-TIE AND ANTI-RAIL-SPREADER.

SPECIFICATION forming part of Letters Patent No. 767,089, dated August 9, 1904.

Application filed October 31, 1903. Serial No. 179,270. (No model.)

To all whom it may concern:

Be it known that I, THOMAS C. THOMAS, a citizen of the United States, residing at Peoria, in the county of Peoria and State of Illinois, have invented certain new and useful Improvements in a Combined Rail-Joint Tie and Anti-Rail-Spreader; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

This invention has reference to an improved device for holding railway-rails, and relates more particularly to a combined railway-tie and anti-rail-spreader.

The primary object of the invention, however, is to provide a firm stable device for preventing spreading of rails and to dispense with spikes and wooden ties for securing the rails in place.

A further object is to furnish a support for the rail that will be more nearly permanent than the wooden ties usually employed.

In the accompanying drawings, Figure 1 is a side view of my improved device, showing the rails held therein. Fig. 2 is a perspective view of the body of the invention with the rails and certain parts removed therefrom. Fig. 3 is a perspective view of locking members as removed from the body shown in Fig. 2. Fig. 4 is a cross-section of the body and one of the locking members. Fig. 5 is a perspective view of a portion of the body in a slightly-modified form, showing the rail thereon. Fig. 6 is also a perspective view of a modified form of locking member. Fig. 7 is a perspective view of a portion of the body and modified form of connection between the locking members shown in the other figures. Fig. 8 is a perspective view of a portion of the body, showing a different form of locking means for a rail.

In the figures, A indicates the body portion of my improved device, which preferably forms the tie upon which the rails rest. This member is provided at each end with a head recessed or undercut at C to receive one-half of the base of the rail D, as shown in Fig. 1, the overhanging end of said heads abutting

against the central vertical web of the said rail. Said body A, as shown in the several figures, and especially in Figs. 1 and 4, is recessed at E, and into such recess is adapted to seat two locking members F F. These said members are merely bars laid end to end, with their extreme ends recessed, as at G, leaving two projections, an upper one, H, and a lower one, I. The under side of the upper projection is beveled, as shown, to conform to the slant of the upper surface of the base of the rail and corresponds with the bevel of the heads B. Figs. 1 and 2 illustrate the manner in which the recess E is formed. It will be observed that such ends are extended to form an undercut, as illustrated at J, into which the projections or lips I of the members F are adapted to enter. It is now to be observed that the projections H of the said members F lie upon the rail-base, while the projections I occupy the recesses J referred to, and it will be understood that if properly held in place no amount of sidewise strain or thrust upon the rail can possibly overturn it, nor can the rails be spread. The length of the body A is fixed and the rails when held therein cannot be spread in the least degree. In placing the locking members in place between the rails their rail ends are put in position and their free ends placed together, as indicated in broken lines in Fig. 1. By a downward push on the adjoining ends the members are carried down into the recess E therefor, the rail ends being forced upon the base of the rail and into the recesses J described. As a matter of fact a toggle-joint is formed between the members F, so that when forced down into place a considerable pressure must be exerted to again raise said members. These portions may be hinged together, as shown in the figures, or may have their ends merely placed together without pivotal or other connection. When forcing the parts into position, it must be evident that the rails will be forced apart sufficient to cause them to enter the recesses of the body, and it will also be evident that said rails will be immovable when thus secured. A fastening means may be used to hold the joint of the members F down if found desir-

able, and to this end an ear K may be formed, with the body A at each side, as shown in Figs. 2 and 7. In this case a single bolt may be passed entirely through said ears and the joint of the members F, thereby locking the joint securely, no other securing means being necessary.

I have shown in the figures a recess L, forming an opening entirely through the body A, and this is used for two purposes: first, to lighten the device, and, second, to provide an exit for water finding entrance to the body. In order that as little water as possible find entrance to said body, the members F are provided with projecting flanges M, which, as shown in Fig. 4, shed the water perfectly by carrying it over the sides.

In raising the members to release the rails a crowbar may be placed beneath the flange M, or if said flanges are not employed, as shown in Fig. 1, a series of indentations N may be used, into which the nose of the bar may be inserted. Then by prying with the bar said members may easily be lifted.

In Figs. 5 and 6 is shown a modification of the device. The body A has its head channeled out, leaving the vertical wall O, which is preferably provided with two or more holes, only two, however, being shown. Two abutting ends of the rail are seated on the body, as before described, there being corresponding holes in the rail ends. The member F is also recessed, as shown, to leave the flange P, also provided with holes. The wall or flange O, the rail ends, and the flange P of the member F are now all secured together by bolts. This form is provided only when desired; but other forms may also be used without departing from the spirit of the invention, it being understood that the toggle arrangement is also used with this form just described. In Fig. 8 the body A may be used; but instead of the members F a chair may be used, which is bolted to the body, as shown.

It is the intention to employ one of my improved anti-rail-spreaders every sixteen feet for a thirty-two-foot rail. In this way two rail lengths may be abutted at the middle of the opposite rail, thereby bringing the joints sixteen feet apart. Then by placing the device at each joint the sixteen-foot spaces are created. As a matter of fact the devices may be placed closer together, if desired; but the distances given will be sufficient to entirely prevent any movement of the rails. The ordinary wooden ties may be filled in between and the rails anchored to them in the ordinary way, if desired.

It is not my desire to confine myself in any way to the constructions described and shown, as other forms may be employed that will accomplish the same end in substantially the same way.

Having described my invention, I claim—
1. In an anti-rail-spreading device, means

on which the rails are seated and prevented spreading and means seated between the rails and engaging the same, there being recesses in the first-described means with which the latter means is adapted to engage for preventing such latter means and the rails moving.

2. In an anti-rail-spreading device, a single member recessed to receive the rails substantially as shown, and toggle-arms placed between the rails, the free ends adapted to engage therewith substantially as shown, there being recesses in the first member described with which the toggle-arms engage to hold the latter and the rails.

3. In an anti-rail-spreading device, a single member provided with recesses for receiving the rails substantially as shown and described, a pair of toggle-arms located between the rails, the free ends thereof engaging said rails, there being recesses in the member first described, and projections on the said arms for engaging said recesses to lock the arms against movement and in turn prevent movement of the rails.

4. In an anti-rail-spreading device, a single recessed member for supporting the rails and having the rails seated in said recesses, toggle-arms loosely connected and having their free ends recessed to engage the rails, there being recesses in the supporting member, and projections on said toggle-arms for entering said recesses for preventing movement of the toggles and the rails, when the point of connection of the arms is in a position between the rails as shown.

5. In an anti-rail-spreading device, a single recessed member for supporting the rails and having the rails seated in said recesses, toggle-arms loosely connected and having their free ends contacting with the inner sides of the rails and recessed to engage the said rails, there being recesses in the member first described beneath the base of the rails, projections on the arms for entering such recesses substantially as described and means for securing the connected ends of the arms from rising after locking as set forth.

6. An anti-rail-spreader comprising a unit member in which the rails are seated, said member having a head at each end with which the rails engage and by which they are prevented spreading, a recess in the member extending along the same and beneath the bases of the rails and two locking members adapted to lie end to end in the recess, the free ends of such locking members being notched to engage the first-said member and the base of the rail substantially in the manner shown.

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

THOMAS C. THOMAS.

Witnesses:

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L. M. THURLOW.