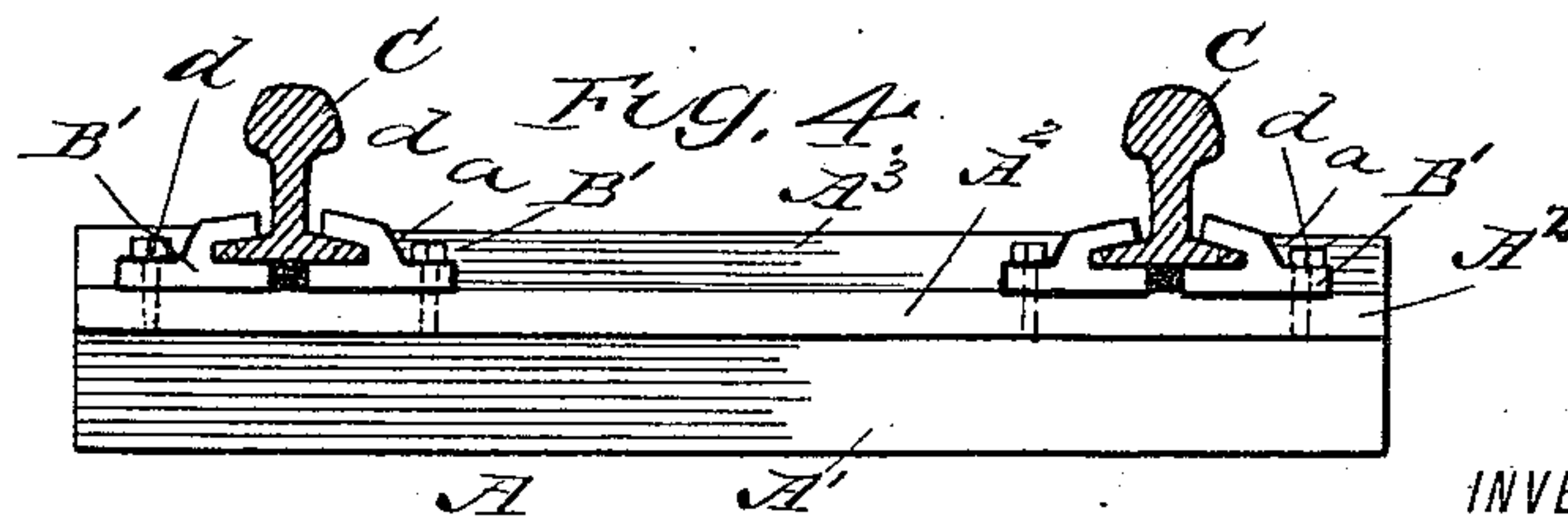
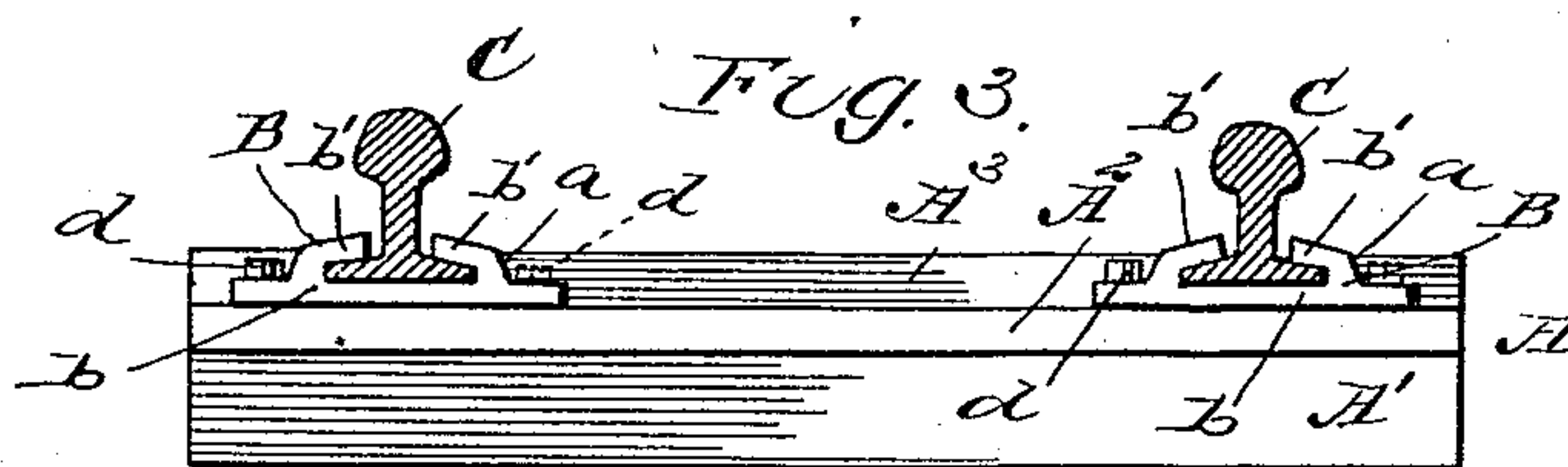
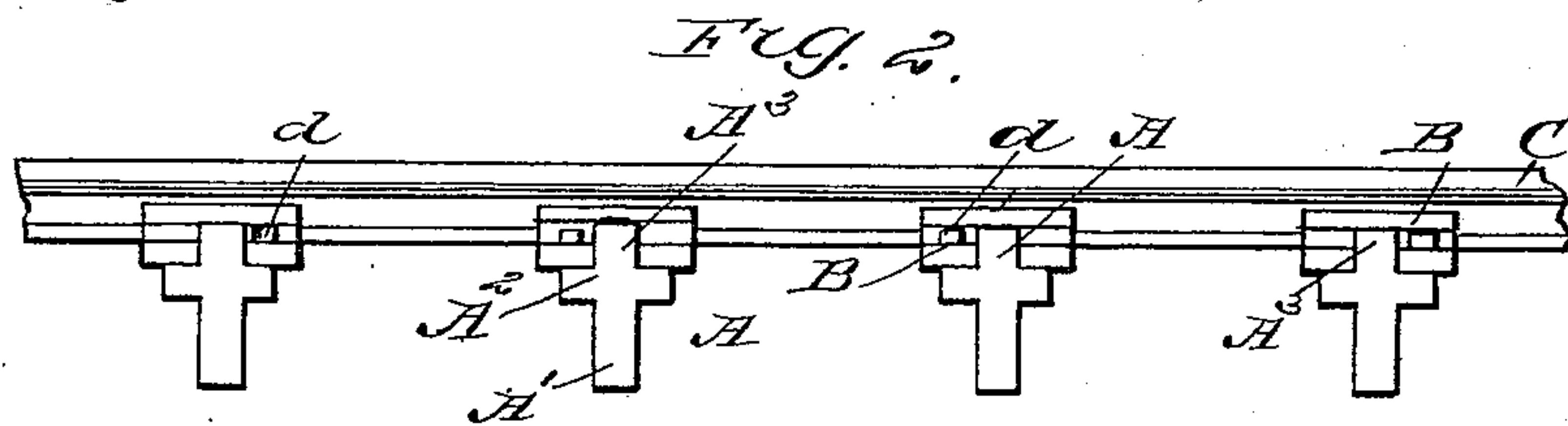
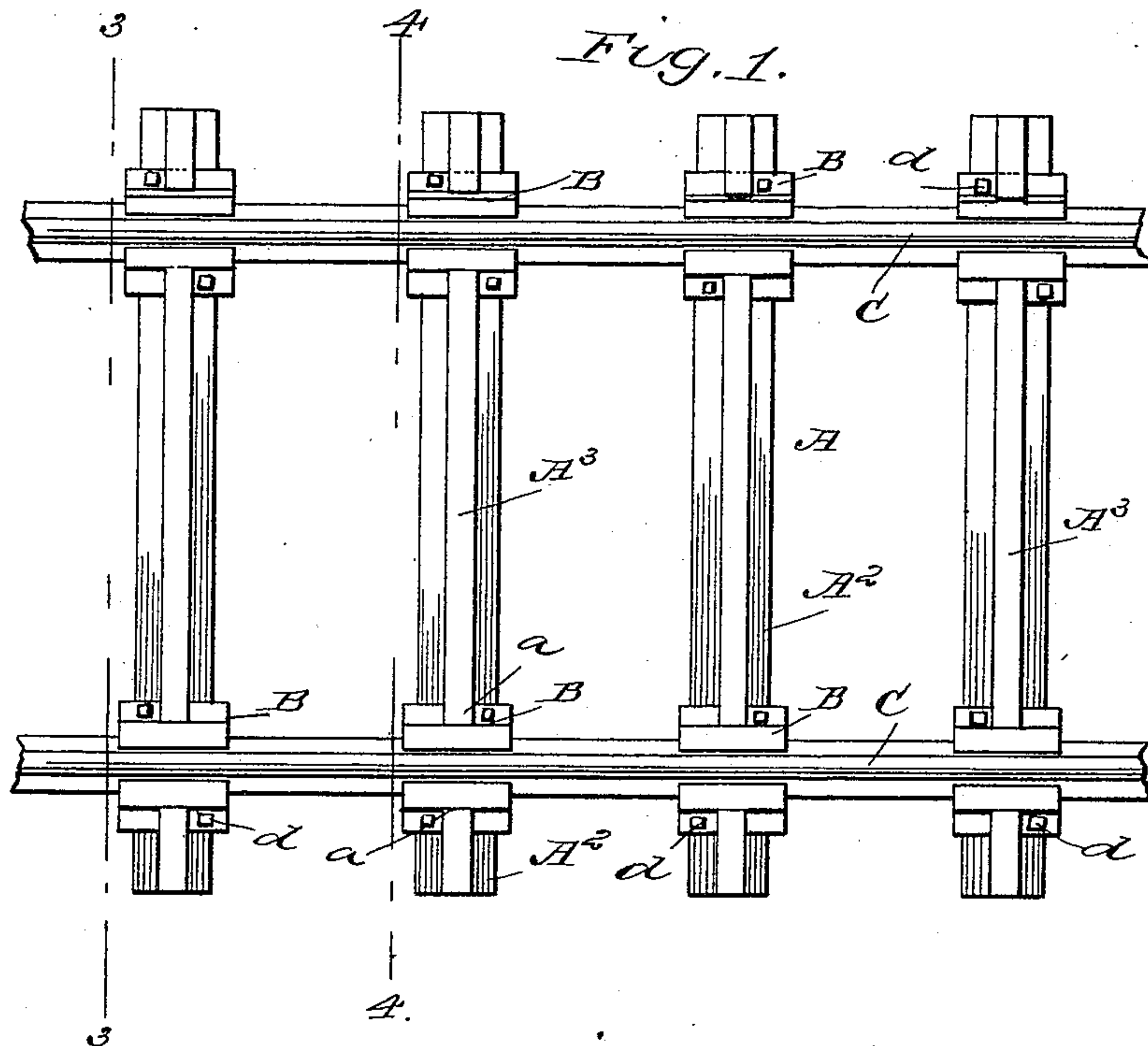


(No Model.)

M. A. GLYNN.  
RAILROAD SLEEPER AND RAIL FASTENER.

No. 441,549.

Patented Nov. 25, 1890.



WITNESSES:

W. R. Davis,  
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# UNITED STATES PATENT OFFICE.

MICHAEL A. GLYNN, OF HAVANA, CUBA.

## RAILROAD-SLEEPER AND RAIL-FASTENER.

SPECIFICATION forming part of Letters Patent No. 441,549, dated November 25, 1890.

Application filed July 23, 1890. Serial No. 359,608. (No model.)

*To all whom it may concern:*

Be it known that I, MICHAEL A. GLYNN, of Havana, Cuba, have invented a new and Improved Railroad-Sleeper and Rail-Fastener, of which the following is a full, clear, and exact description.

My invention relates to improvements in metallic railroad-sleepers and in means for fastening the rail to the same; and the object of my invention is to produce a sleeper possessing the necessary elasticity, which is cheap, and which may be easily placed in position, and to provide means for fastening the rails to the sleepers in such a manner that they cannot get out of place.

The invention consists in the particular construction and combination of parts hereinafter fully described, and pointed out in the claim.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a broken plan view showing two rails attached to the sleepers. Fig. 2 is a side elevation of the same. Fig. 3 is a cross-section on the line 3 3 of Fig. 1; and Fig. 4 is a cross-section on the line 4 4 of Fig. 1, showing a modified form of chair.

The sleepers A are sufficiently long to extend across the track, and each sleeper is provided with a depending tongue A', which is embedded in the earth when the sleeper is laid, a broad portion A<sup>2</sup> at the top of the tongue, said portion being adapted to rest upon the surface of the earth, and a longitudinal rib A<sup>3</sup>, extending centrally above the broad portion A<sup>2</sup>, said rib having slots *a* near each end to receive the chairs B, which carry the rails C. The chairs B fit closely upon the flanges of the rails C, which are of the usual construction, the said chairs having a broad base *b*, which rests upon the broad portion A<sup>2</sup> of the sleepers, and having inwardly-extending lugs *b'*, which fit closely upon the rail-flanges. The slots *a* in the ribs A<sup>3</sup> of the sleepers are shaped to correspond with the shape of the chairs B, and as the chairs fit closely upon the rails it will be seen that when the chairs and rails are in position it will be impossible for the rails to have any lateral movement, and as the chairs are

slipped into the slots *a* from the side, so that a portion of the ribs A<sup>3</sup> will press upon the upper portion of the chairs, it will be seen, also, that the chairs and rails cannot have a vertical movement, and consequently get loose. To prevent the rails from creeping, spikes *d* may be inserted through suitable perforations in the chairs and in the sleepers.

When the chairs B are used, they may be permanently attached to the rails; and to connect the rails and the sleepers the sleepers may be placed beneath the rails, may be tipped into a proper position, and then moved lengthwise of the rails, so that the slots *a* will slide over the chairs B, and the spikes *d* may then be placed in the chairs and sleepers, as described above, with the object of preventing creeping.

In Fig. 4 I have shown a modified form of chair, which is similar to the chair described above, except that it is in two parts, thus forming two separate chairs B'. These chairs are placed upon each side of a rail, so as to clasp the flanges thereof, and the chairs are then slipped along the rails and into the slots *a* of the sleepers, when they may be fastened in place by spikes *d*, as described above.

From the foregoing description it will be seen that the sleepers and chairs are of simple construction, that they may be easily placed in position, and that when in position, with the rails attached as described, it will be impossible for the rails to get loose.

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

The combination, with the rails C, of the sleepers A, each provided with the depending tongue A', the broad portion A<sup>2</sup> at the top of the tongue, and the longitudinal central rib A<sup>3</sup> above the broad portion A<sup>2</sup> and having the undercut slots *a* in its ends, and the chairs B, each having the broad base *b* and the inwardly-extending lugs *b'*, said chairs fitting in the slots of the ribs A<sup>3</sup> and resting upon the broad portions A<sup>2</sup>, with their flanges fitting snugly upon the flanges of the rails, substantially as herein shown and described.

MICHAEL A. GLYNN.

Witnesses:

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