

(No Model.)

J. FRYSSINGER.

RAILWAY TRACK.

No. 332,707.

Patented Dec. 22, 1885.

Fig. 1.

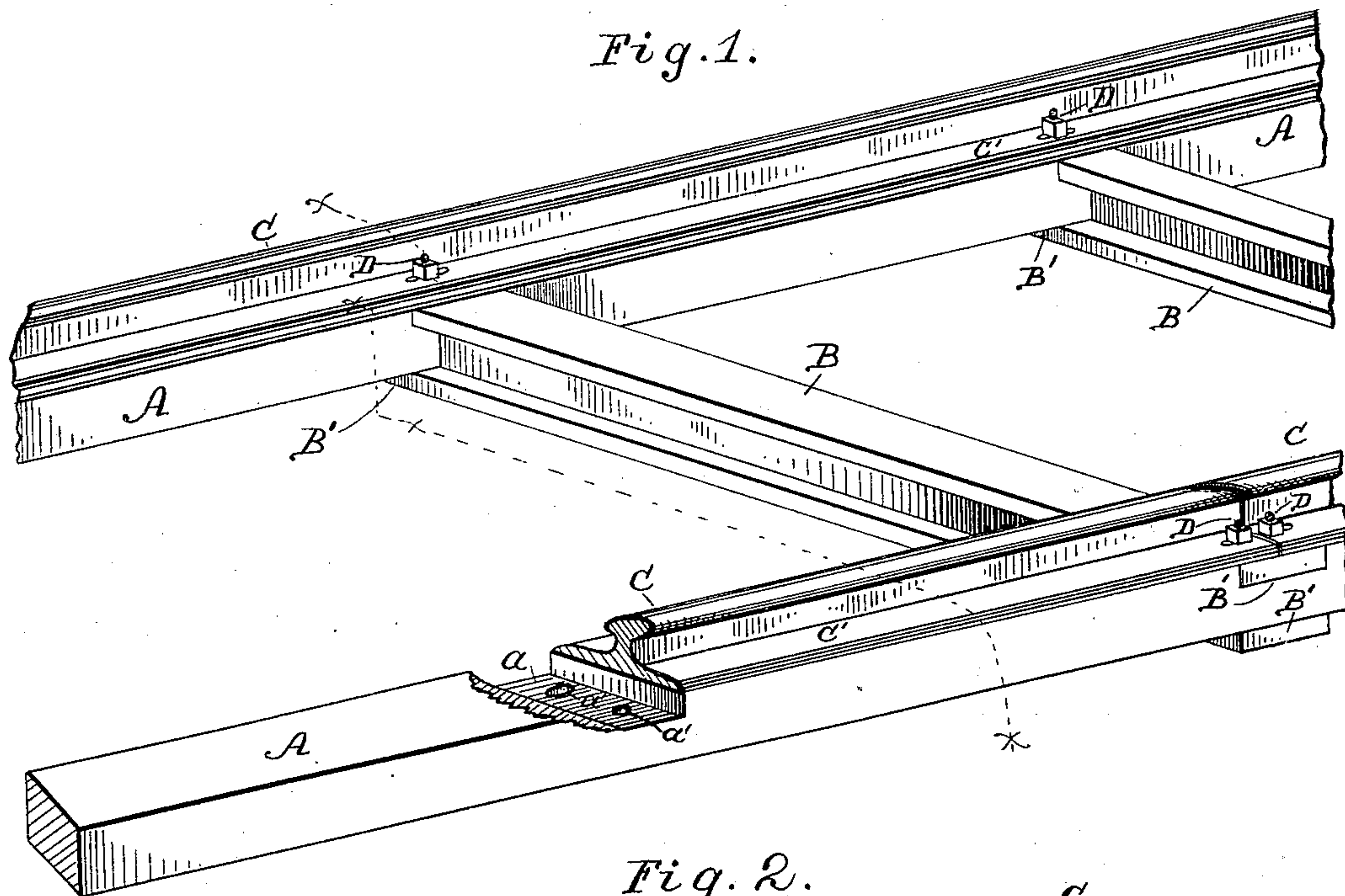


Fig. 2.

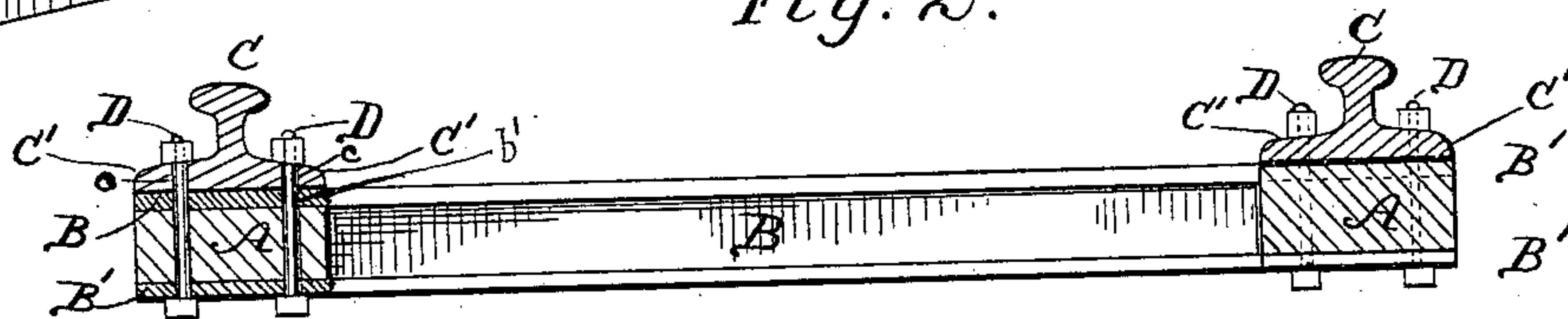
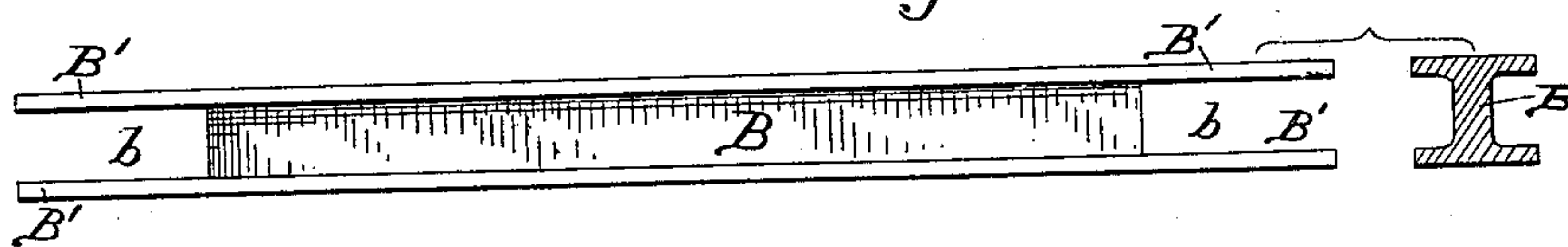


Fig. 3.



WITNESSES:

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RAILWAY-TRACK.

SPECIFICATION forming part of Letters Patent No. 332,707, dated December 22, 1885.

Application filed May 16, 1885. Serial No. 165,767. (No model.)

To all whom it may concern:

Be it known that I, JACOB FRYSSINGER, a citizen of the United States, residing in Rock Island, in the county of Rock Island and State of Illinois, have invented a new and useful Improvement in Railroad-Tracks; and I do hereby declare that the same is a full, clear, and exact description.

My invention is an improvement in railway-tracks, and has for an object to provide a convenient structure by which the greatest rigidity may be attained and the spreading or breaking of the rails will be prevented.

To this end the invention consists in certain novel constructions and combinations of parts, as will be hereinafter described, and pointed out in the claims.

In the drawings, Figure 1 is a perspective view of a section of track constructed according to my invention. Fig. 2 is a transverse section thereof on about line *xx*, Fig. 1; and Fig. 3 is a detail view of one of the cross-ties, representing the same in side view and cross-section.

My track is formed of the stringers A, the cross-ties B, the rails C, and the fastening-bolts D. The stringers A are wooden beams of proper dimension. In the upper faces of these stringers I cut the transverse notches or mortises *a* of a depth about equal the thickness of the upper arm of the cross-tie. Through the stringers, and near their opposite sides, I form bolt-holes *a' a'*, the inner ones of which are preferably elongated in the direction of length of the stringers, in order to permit the desired adjustment of the parts in forming curves. These openings *a' a'*, it will be seen, lead through the notches *a* of the stringers. The cross-ties or sleepers B are formed of metal, preferably of the H or double-channeled cross-sectional shape shown. The ends of the cross-ties are slotted at *b*, forming arms B' B', through which are formed bolt-holes *b' b'*, which in operation register with the holes *a' a'* through the stringers. The upper arm of the tie rests in the notches *a* of the stringer, with its upper face flush with that of the said stringer, as shown, and the lower arm extends below the stringer, as will be clearly seen from the drawings. The rails C are seated on the stringers, and their bases C'

are made of sufficient width to permit the bolt-holes *c* to be formed in them in register with the bolt-holes in the stringers and the rails. The bolts D are passed through the holes in the arms of the tie. The stringers and rails and such parts are firmly secured together thereby.

By seating the upper arms of the ties in the stringers they furnish a support for the rails, and the tie at the joint of the rails is made of sufficient width to serve as a chair for the meeting end of the rails, and the usual extra chair is dispensed with.

The bolt-holes in the rails are elongated similarly to the inner one of those in the stringers, both to permit the expansion and contraction of such rails and the formation of curves. This elongation of the inner bolt-holes in the stringers is only required at curves in the road; but I prefer to form all the stringers in such manner, in order that any one may be used on curves.

By the described construction it will be seen the fastening-bolts are passed through the metallic cross-ties and the rail, and the strain of such bolts is relieved from the stringers. By such construction the rails cannot spread unless the metal be forcibly torn apart—practically an impossibility—so that the road-bed will be firm and strong. The lower arms of the ties, extending below the stringers, furnish bed-supports therefor. It will also be seen that the arms of the tie, above and below the stringers, form binding-plates therefor, which operate to prevent any twisting of the stringer, which might lead to a splitting thereof, as will be understood.

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

1. The combination, with the stringers having transverse notches in their upper faces, of the rail secured on such stringers, and the metallic cross-ties having their ends slotted, forming arms, the lower ones of which extend under the stringers, and the upper ones of which are seated in the notches in the stringers, with their upper faces flush with those of the stringers, and securing-bolts, substantially as set forth.

2. The railroad-track herein described, con-

sisting of the stringers having transverse notches in their upper faces, the metallic cross-ties having their ends slotted, providing arms, the lower ones of which extend under
5 the stringers, and the upper ones of which are seated in the transverse notches thereof, with their upper faces flush with those of the stringers, the rails seated on the stringers, and

the fastening-bolts passed through the arms of the cross-ties, the stringers and the rail on opposite sides of the web of the latter, substantially as set forth.

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Witnesses:

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