V. A. WHITE.

MEANS FOR CONNECTING PARALLEL RAILROAD RAILS.

APPLICATION FILED DEC. 24, 1907

**899,366.**

Patented Sept. 22, 1908.

2 SHEETS—SHEET 1.

Fig. 1.

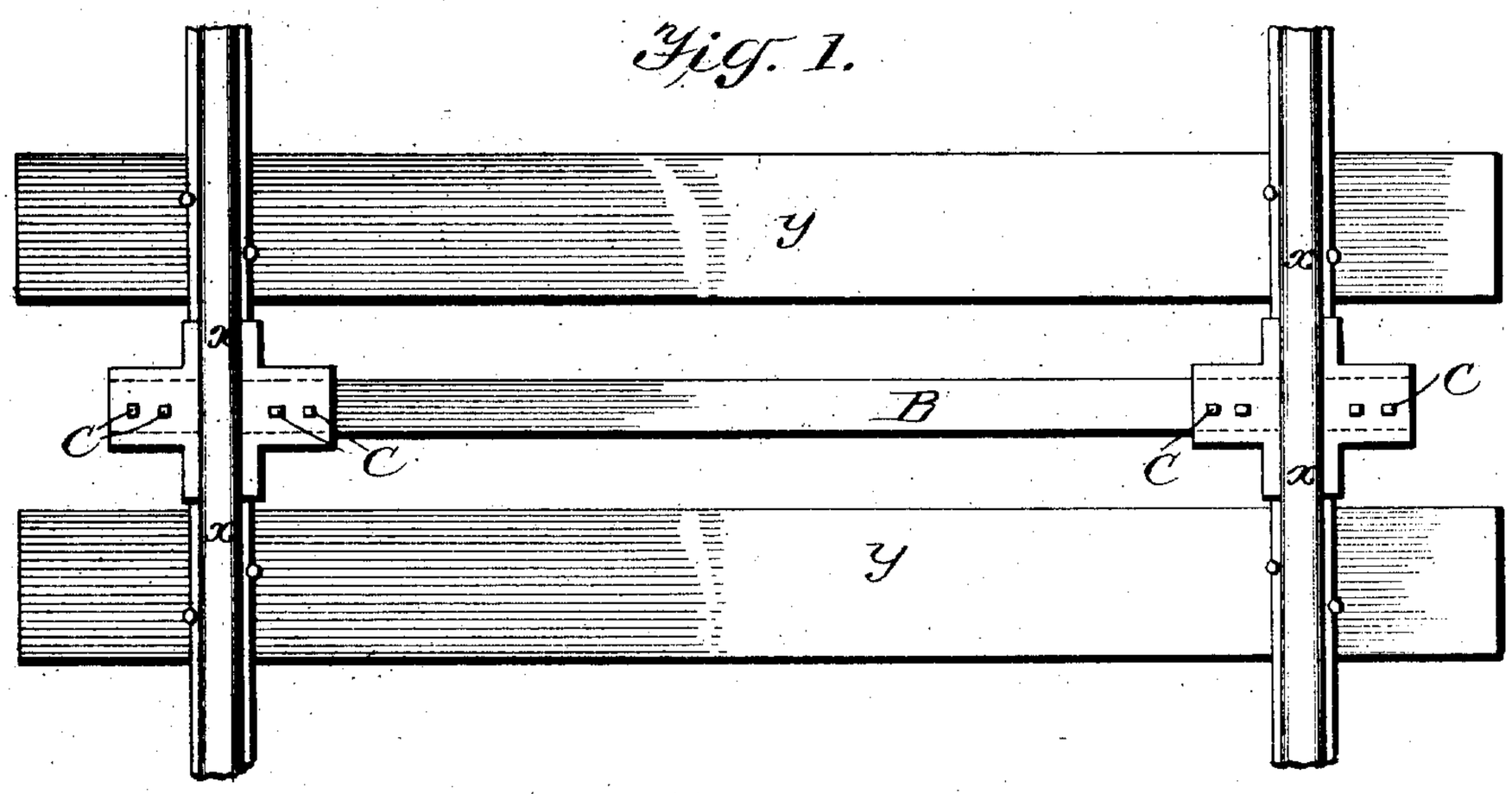



Fig. 3.

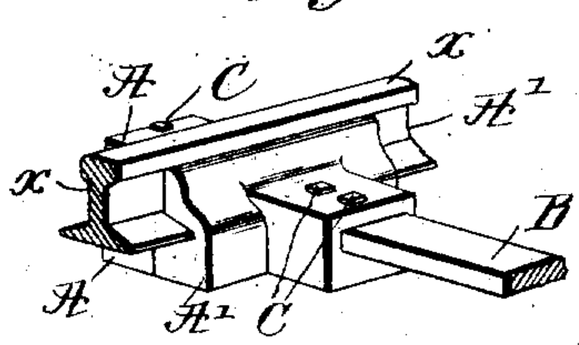



Fig. 4.

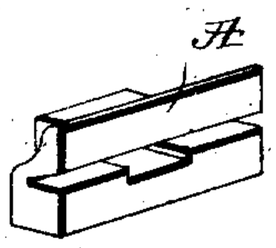



Fig. 4a.

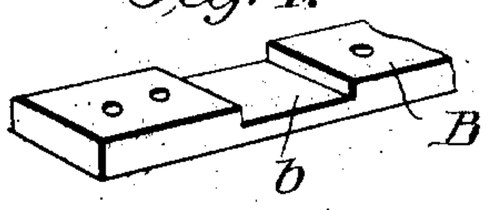
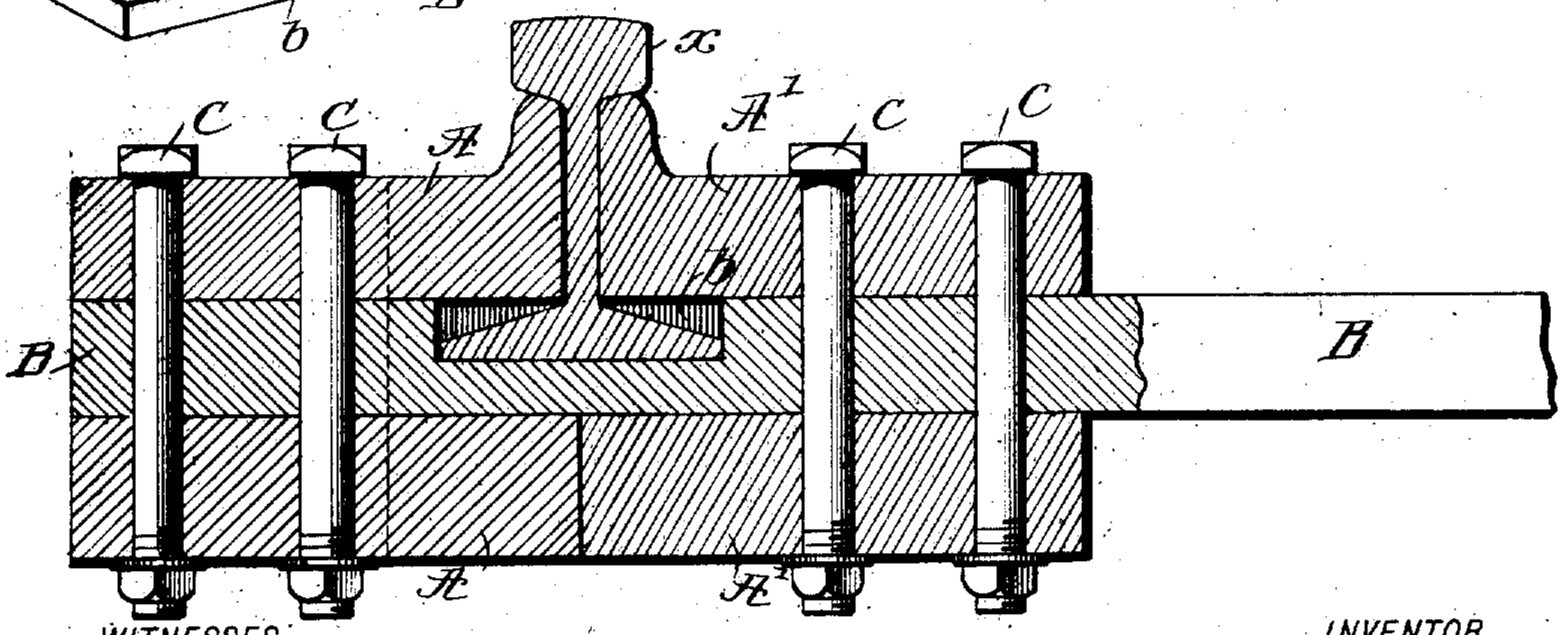



Fig. 2.




WITNESSES

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2 SHEETS—SHEET 2.

*Fig. 5.*

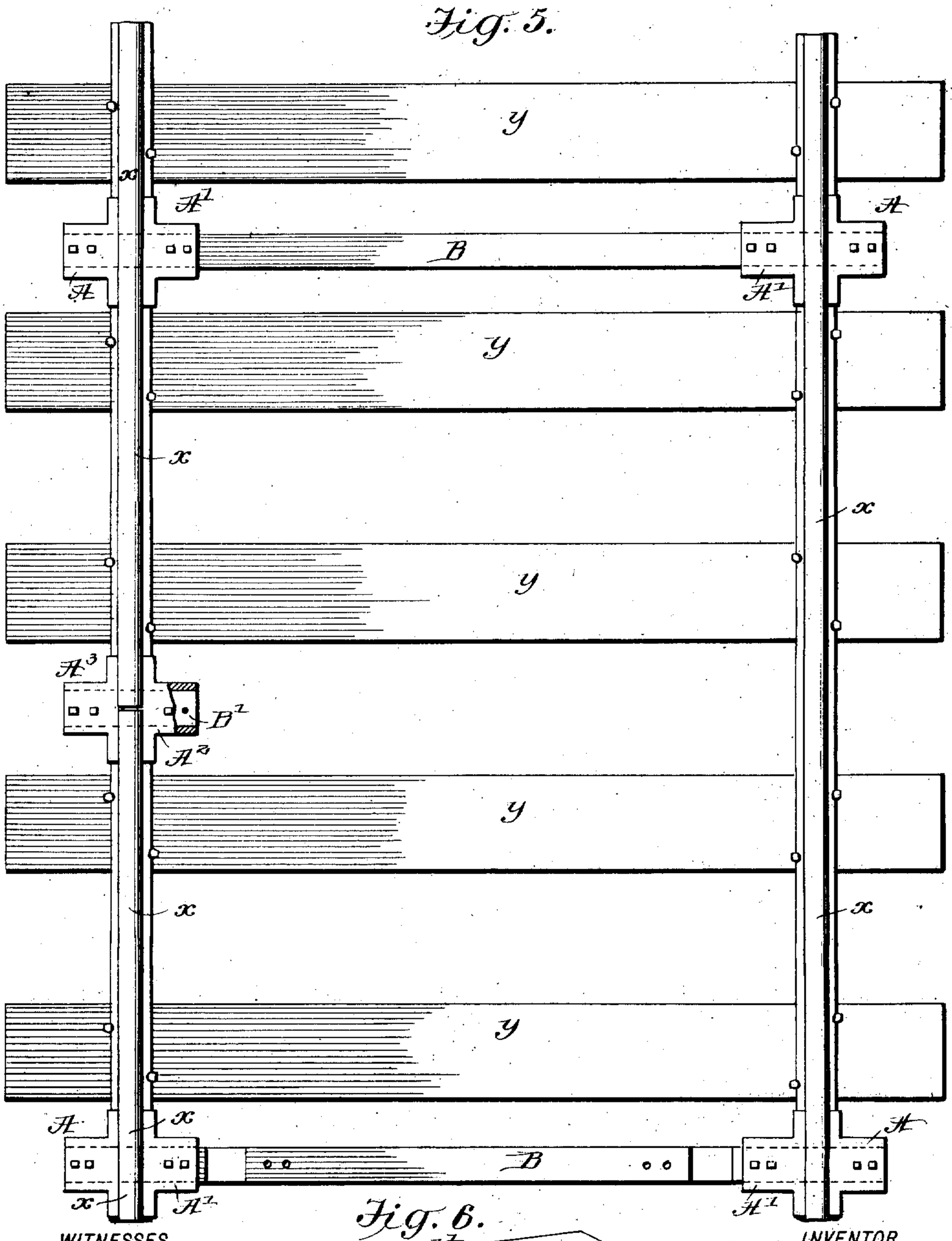
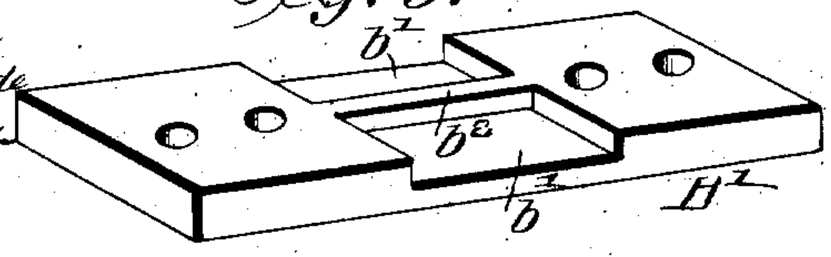



*Fig. 6.*

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# UNITED STATES PATENT OFFICE.

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## MEANS FOR CONNECTING PARALLEL RAILROAD-RAILS.

No. 899,366. Specification of Letters Patent. Patented Sept. 22, 1908.

Application filed December 24, 1907. Serial No. 407,878.

*To all whom it may concern:*

Be it known that I, VERNON A. WHITE, a citizen of the United States, and a resident of Aliceville, in the county of Pickens and State of Alabama, have invented new and useful Improvements in Means for Connecting Parallel Railroad-Rails, of which the following is a specification.

My invention is an improved means for connecting the parallel rails of railroad tracks whereby they are held rigidly spaced apart at the required distance and separation of the rails is avoided.

The invention also includes means for connecting the meeting ends of railroad rails and holding them in rigid alinement.

The details of construction, arrangement, and combination of parts are as hereinafter described, and illustrated in the accompanying drawings, in which—

Figure 1 is a plan view of a railroad track and ties with my improvement applied. Fig. 2 is an enlarged vertical longitudinal section of one of the end portions of the apparatus embodying my invention. Fig. 3 is a perspective view of the same parts greatly reduced in size. Fig. 4 is a perspective view of one of the blocks or cuffs detached. Fig. $4^a$ is a perspective view of one end of the long brace and tie bar. Fig. 5 is a plan view showing my invention as applied to extended rails, both at their meeting ends and intermediately. Fig. 6 is a perspective view of an end portion of a short brace and tie bar.

*x* indicates alined and juxtaposed railroad rails arranged parallel in the usual way, and *y* ties supporting the same.

My invention is an apparatus applied to and connecting rails in the spaces between the ties.

A, A′ indicate blocks, and B a long brace and tie bar extending between and detachably connected with them. The blocks A, A′, may for convenience be termed cuffs or clasps, since they partly embrace the bases of the rails *x* as shown. Each of the blocks or cuffs is provided in its inner side with recesses adapted to receive, and in general conform to, the bases of the rails *x*, as shown. The upper portions of the cuffs abut against the webs of the rails and also the under side of the heads of the same.

The brace and tie bar B extends through transverse openings provided in the central portions of the cuffs A, A′, as will be understood by reference to Fig. 2. Screw bolts C are applied for securing the cuffs to the bar B, there being two of the same inserted vertically through coincident holes in the bar in each cuff, and screw nuts being applied to their threaded lower ends.

By providing a larger number of holes in the bar B, it is obvious that the cuffs may be adjusted thereon as required for a narrow or wide gage of track. The bar B is recessed as indicated by *b*, Figs. 2 and $4^a$; that is to say, the upper side of tie B is grooved transversely to receive the rail bases.

It will be seen that by the invention described, the rails composing the track are held perfectly parallel, separation or other lateral displacement being prevented both in straight portions of the track and also in curves of the same. By this means derailment, wrecks, and consequent loss of life, also loss of rolling stock, so frequently due to spreading are absolutely prevented, while the saving in labor ordinarily required for repairing of the track and rolling stock is very great. Further, much greater speed can be safely attained on curves than would be otherwise practicable.

In Fig. 6, I show a short bar B′ for connecting cuffs $A^3$, $A^3$, and applied to meeting ends of rails as shown in Fig. 5. Thus the bar B′ does not extend between the parallel rails *x* as in case of the long bar B before described. There is a rib $b^2$ between the recesses *b*′, and said rib lies between the ends of the rails which may be notched to receive the rib.

It will be observed that the top surface of all the cuffs is cut away in such manner that the flanges of the car wheels cannot come in contact with them. In practice, the length of the cuffs in the direction of the rails may be about the same as the angle irons or fishplates now commonly employed. It is understood that the mortises and recesses in the inner faces of the cuffs are shaped or adapted to fit tightly on the rail bases or flanges.

What I claim is:

1. The combination, with parallel rails, of cuffs recessed in their inner faces to receive the bases and webs of said rails, and provided with alined transverse openings, a brace and tie bar passing through said open-

ings and provided in the upper side with a recess to receive the bases of the rails, and vertical screw-bolts passing through cuffs and bar on each side of the rails for securing the cuffs to said bar detachably, substantially as described.

2. The combination, with alined rail ends, of cuffs applied thereto on opposite sides, a tie bar connecting the cuffs and having opposite recesses and an intervening rib which separates the bases of the rails as shown and described.

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