

(No Model.)

R. R. McCLERG.  
RAILROAD CROSS TIE.

No. 512,387.

Patented Jan. 9, 1894.

Fig. 1.

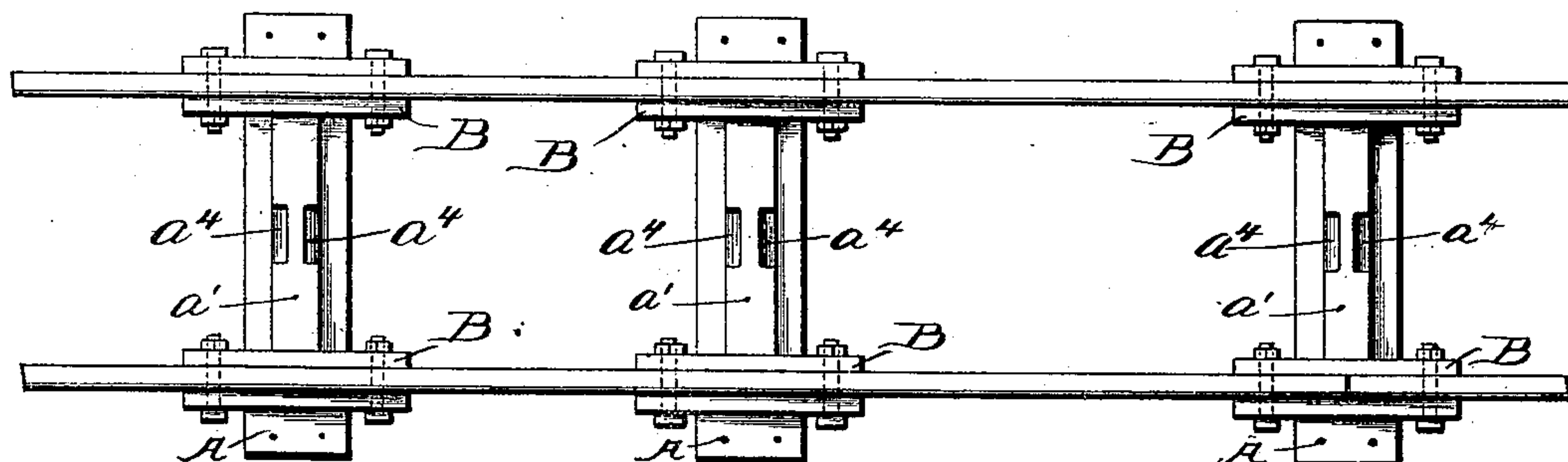


Fig. 2.

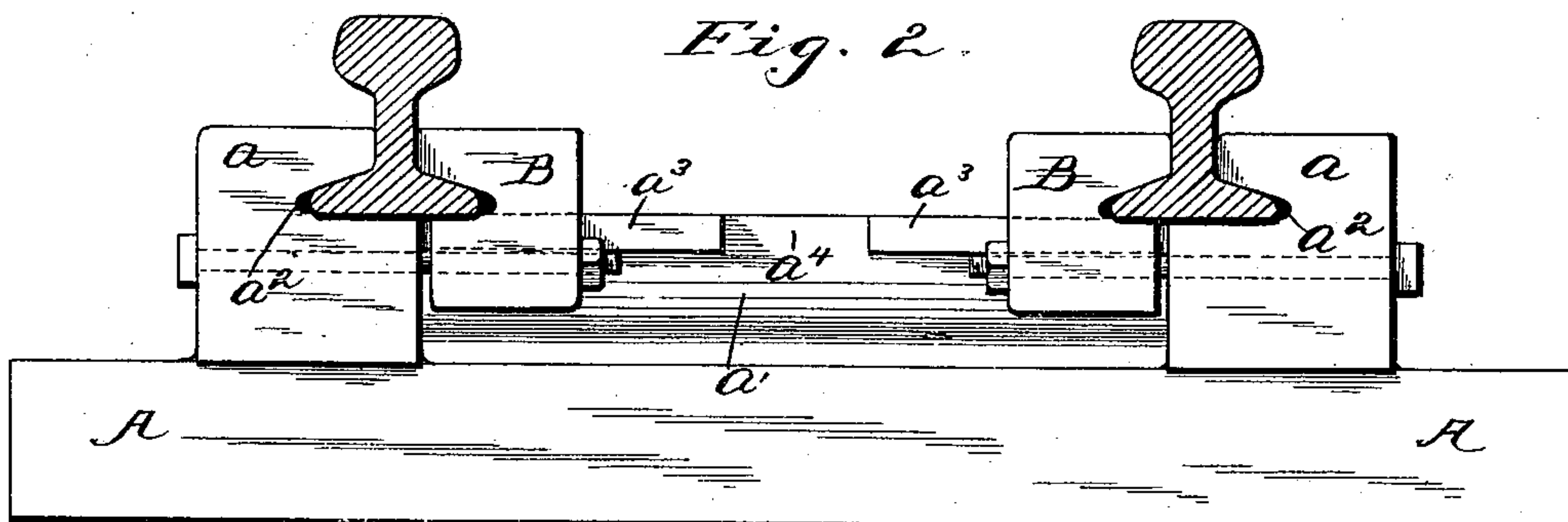


Fig. 3.

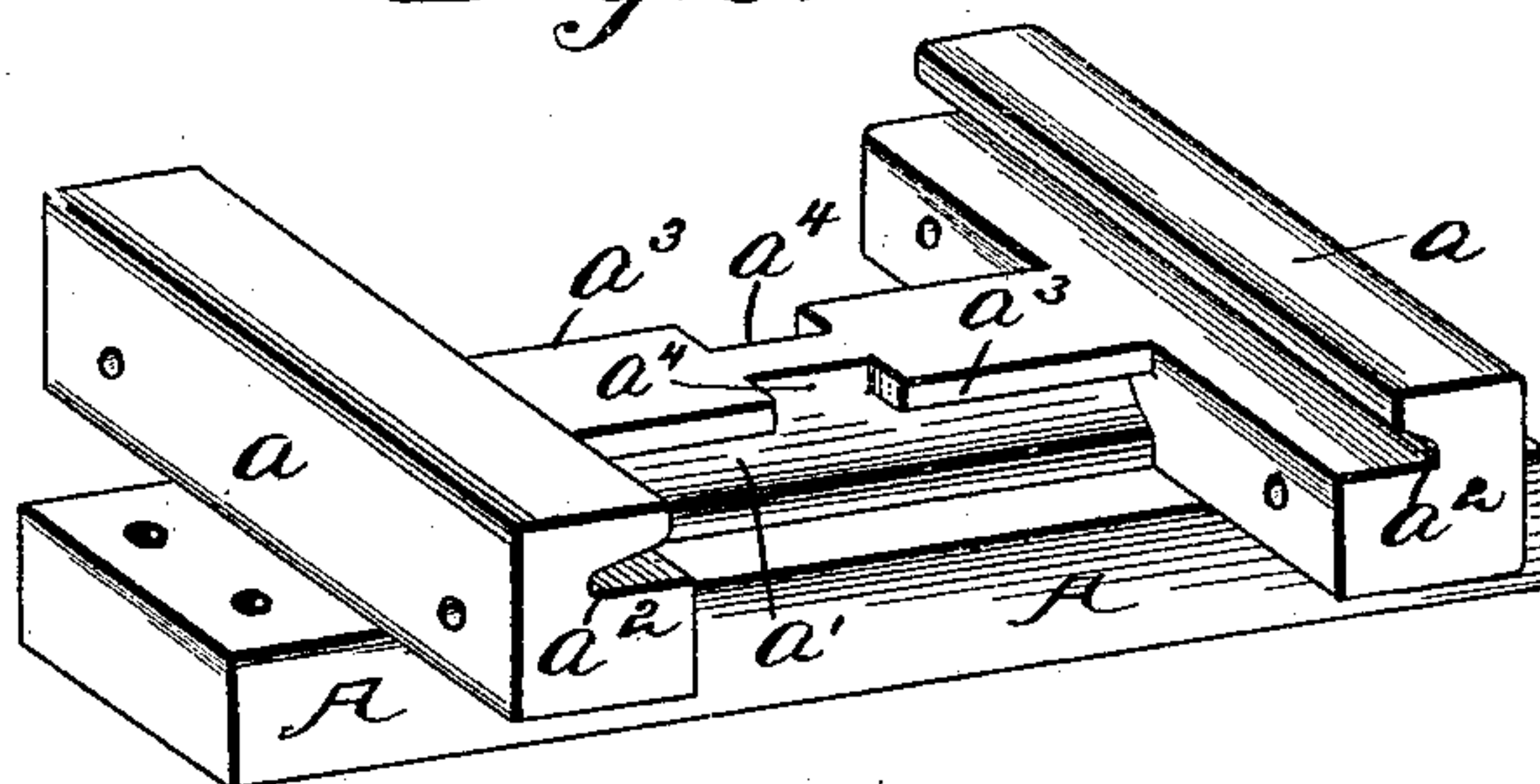
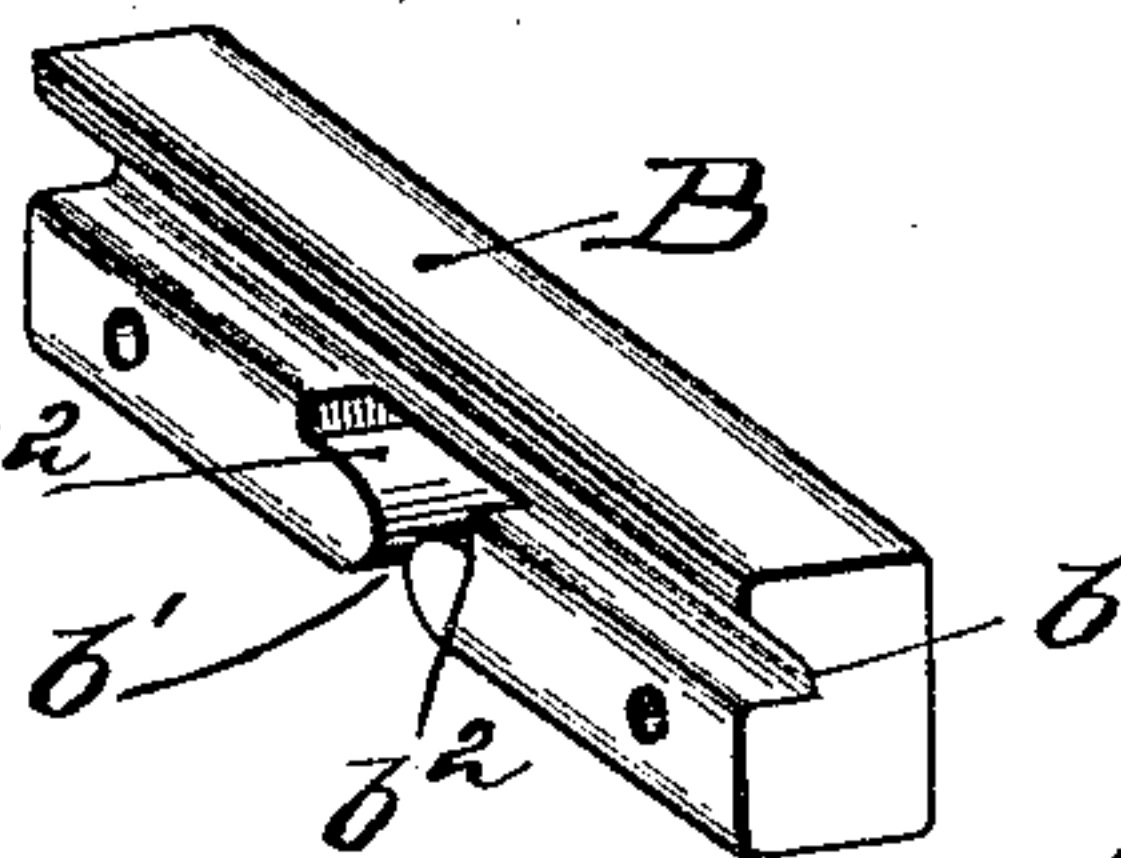


Fig. 4.



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# UNITED STATES PATENT OFFICE.

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## RAILROAD CROSS-TIE.

SPECIFICATION forming part of Letters Patent No. 512,387, dated January 9, 1894.

Application filed July 13, 1893. Serial No. 480,376. (No model.)

*To all whom it may concern:*

Be it known that I, REUBEN R. MCCLERG, a citizen of the United States, residing at Roanoke, in the county of Randolph and State of Alabama, have invented certain new and useful Improvements in Railroad Cross-Ties; and I do 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, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention has relation to "metallic railway cross ties;" and consists in the novel construction and arrangement of its parts, hereinafter set out in this specification and the claims thereto annexed.

In the accompanying drawings: Figure 1 is a top plan view of a railway track, the rails being secured on my cross tie. Fig. 2 is a side elevation of my cross tie holding in position a couple of rails. Fig. 3 is a perspective view of my cross tie without the clamps. Fig. 4 is a perspective view of one of the inside clamps.

My invention is described as follows: The railway tie consists of three pieces secured together by proper bolts and nuts. The nuts may be secured in place by nut locks if desired. The cross tie proper consists of the base A, cross pieces  $a$ , and the longitudinal center piece  $a'$ . The cross pieces  $a$ , are provided on their inner edges with grooves  $a^2$ , adapted to grasp the outer flange of the railway rail. The lower face of said groove is flush with the upper face of the longitudinal piece  $a'$ ; said longitudinal piece  $a'$ , is provided with flanges  $a^3$ , having at its middle recesses  $a^4$ . B, are the inside clamps having grooves  $b$ , adapted to grasp the inside flange of the rail; said clamp is provided on its under face with a recess  $b'$ , wide enough to slip over the part left between the recesses  $a^4$ , in the part  $a'$ , widening at  $b^2$ , sufficiently to receive the flanges  $a^3$ , of said center piece. The parts A,  $a$ , and  $a'$ , are cast in one solid piece and the parts B, are each cast in one solid piece.

In operation my cross tie is put in proper place in the road bed. The rails are then laid

along with their outside flanges in the grooves  $a^2$ , of the cross pieces  $a$ . Then one clamp B, is set in at the recesses  $a^4$ , and brought up to clamp the rail, the inner flange of said rail fitting in the groove  $b$ . Another clamp is then put on at the recesses  $a^4$ , and slipped to the other side, the inside flange of the rail fitting in its groove  $b$ . The clamps B, are then secured in place by bolts and nuts or by equivalent means.

In each end of the cross tie are two perforations that the same may be bolted to the timbers or stringers or bridges.

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

1. The combination of the base A, cross pieces  $a$ , having grooves  $a^2$ ; center piece  $a'$ , having flanges  $a^3$ , and recesses  $a^4$ ; clamps B, having grooves  $b$ , and a recess  $b'$ , the whole adapted to clamp and hold in place railway rails and to be secured by bolts and nuts or equivalents, substantially as shown and described and for the purposes set forth.

2. The combination of the base A, provided with end perforations; cross pieces  $a$ , having grooves  $a^2$ ; center piece  $a'$ , having flanges  $a^3$ , and recesses  $a^4$ , and clamps B, having grooves  $b$ , and recess  $b'$ , the whole adapted to clamp and hold in place railway rails, and to be secured by bolts and nuts or equivalents, substantially as shown and described and for the purposes set forth.

3. A metallic railway cross tie, consisting of a solid base, having flanges near each end to grasp the outer flange of a railway rail, a longitudinal center piece having flanges to work in the recess of a cross piece, and cross pieces having recesses to fit over said flanges, and flanges to grasp the outer flanges of a railway rail, the whole adapted to clamp and hold in place railway rails, and to be secured by bolts and nuts or equivalents, substantially as shown and described and for the purposes set forth.

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

REUBEN R. MCCLERG.

Witnesses:

D. S. DUNKIN,  
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