(No Model.)

C. S. WESTBROOK.

RAILWAY TIE.

No. 302,965. Patented Aug. 5, 1884.

Fig. 1.

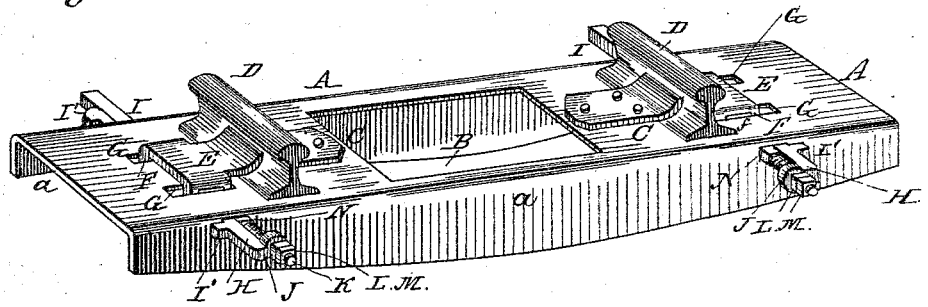


Fig. 2.

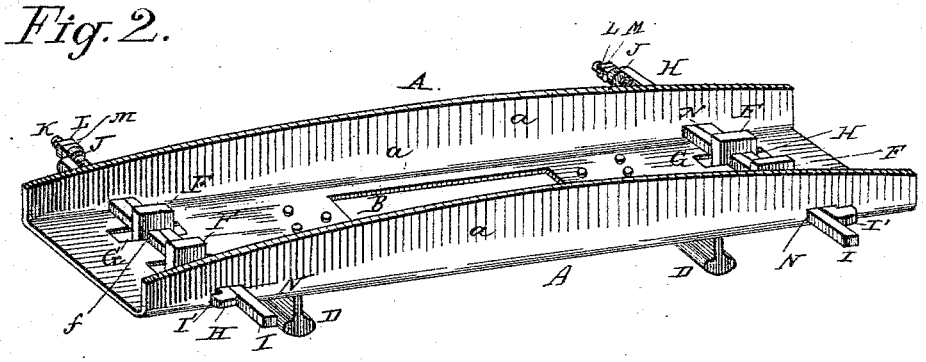


Fig. 3.

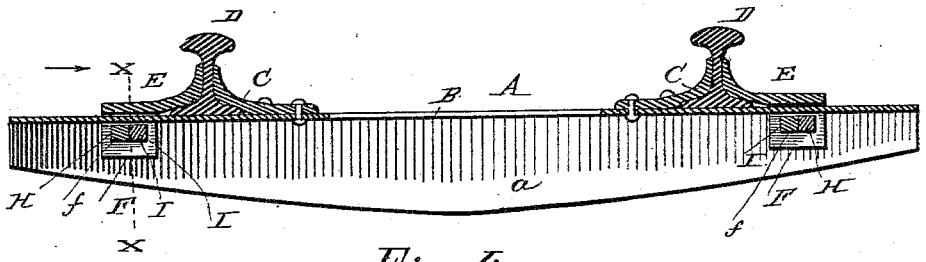
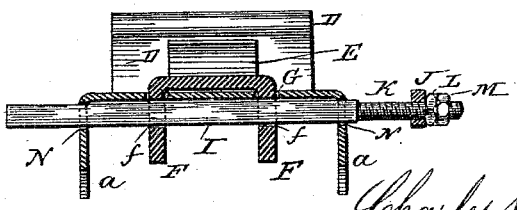


Fig. 4.



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RAILWAY-TIE.

SPECIFICATION forming part of Letters Patent No. 302,965, dated August 5, 1884.

Application filed November 9, 1883. (No model.)

To all whom it may concern:

Be it known that I, CHARLES S. WESTBROOK, a citizen of the United States, and a resident of Sprague ville, in the county of St. Lawrence and State of New York, have invented certain new and useful Improvements in Railway-Ties; 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, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a perspective view of my improved railway-tie from the top. Fig. 2 is a similar view taken from the under side. Fig. 3 is a longitudinal vertical section, and Fig. 4 is a cross-section through line *x x* in Fig. 3.

Similar letters of reference indicate corresponding parts in all the figures.

My invention has relation to metallic railway-ties; and it consists in the improved construction and arrangement of parts of the same, which will be hereinafter more fully described and claimed.

The body of the tie, which may be either of heavy sheet-iron, malleable iron, wrought-iron, or cast-iron, is shown at A, from which it will be seen that it is constructed with two arched side flanges, *a a*, extending parallel to each other from end to end. The middle part of the tie is cut away, as shown at B, whereby I not only reduce its weight without decreasing its strength or rigidity, but afford convenient means for tamping the gravel or other ballast of the permanent way, which could not well be done, so as to properly solidify the ballast or packing under the tie, in the absence of this opening.

Bolted upon the tie, at opposite sides of the opening B, are the fixed lips or chairs C, which bear against the rails D. The latter are clamped firmly against the fixed chairs by movable chairs E, which are constructed with downward projections F, having openings *f* for the insertion of the locking wedges or keys. The projections F are inserted through slots G in the top or flat body of the tie, and are held in place therein by the keys H and I, which are of a wedge shape, and bear with their inclined or slanting sides against each other, as will appear more clearly by reference to Fig. 2 of the drawings. The key H is constructed with lips or projections I′ I′, and with a projecting perforated lug, J, through which is inserted the threaded end K of the other key, I.

L and M are two nuts, one of which operates as a binding-nut or lock-nut, which are screwed upon the projecting outer end of the bolt or threaded part K, and by means of which it will be seen that wedge I may be drawn up through the slotted projections F F, so as to bind both wedges firmly against the same and against the slots N N in the side flanges, *a*, through which the wedges are inserted.

From the foregoing description, taken in connection with the drawings, the method of locking or unlocking the rails in their chairs will be readily understood without requiring extended explanation. All that is necessary to remove the rails is to unscrew and remove the nuts L and M from the threaded bolts or projections of wedges I, which permit these to be readily drawn out of the perforated lug J and slots N N in the side flanges, *a*. This in turn permits the withdrawal of the other wedge or key, H, through the slots N N and slotted projections F, when the removable chairs E may be drawn out from the rail in the slots G G, in which they work, so that of course the rail can readily be drawn out from under the fixed chair C and removed.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

1. The combination of the body consisting of the flat top and parallel side flanges, having the opening B and slots G G and N N, fixed chairs C, movable chairs E, having slotted projections F, keys or wedges H and I, and means for locking the same in their fixed position, substantially as set forth.

2. The combination of the slotted tie A *a*, having fixed chairs C, movable chairs E, having slotted projections F, keys H, having lips I′ I′, and perforated lug or projection J, key I, having threaded projection K, and the nuts L and M, all constructed and combined substantially as and for the purpose shown and set forth.

In testimony that I claim the foregoing as my own I have hereunto affixed my signature in presence of two witnesses.

CHARLES S. WESTBROOK.

Witnesses:
P. W. HAZELTON,
F. B. HOOVER.