

D. B. DAY.

Improvement in Railway-Ties.

No. 127,581.

Patented June 4, 1872.

Fig. 1.

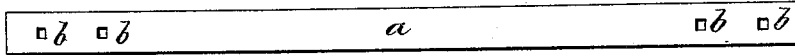


Fig. 2.

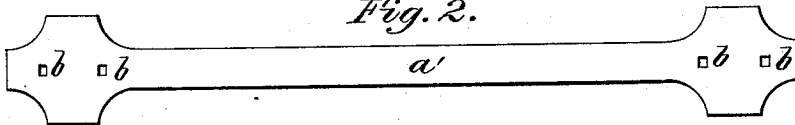
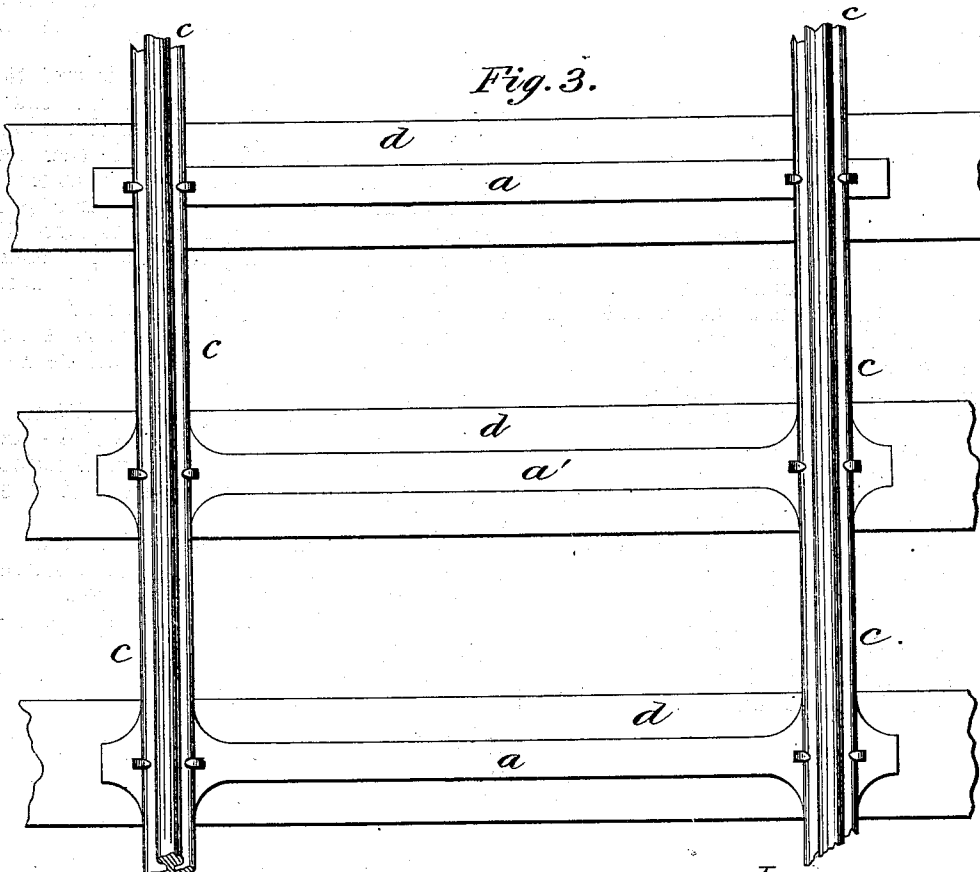


Fig. 3.



Witnesses.
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UNITED STATES PATENT OFFICE.

DUDLEY B. DAY, OF RIDGWAY, PENNSYLVANIA.

IMPROVEMENT IN RAILWAY TIES.

Specification forming part of Letters Patent No. 127,581, dated June 4, 1872.

To all whom it may concern:

Be it known that I, DUDLEY B. DAY, of Ridgway, in the county of Elk and State of Pennsylvania, have invented a certain new and useful Improvement in Railway Ties; and I hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing making a part of this specification, in which—

Figure 1 is a plan view of one form of the iron strip used in my improved tie. Fig. 2 is a plan view of another form of the iron strip, and Fig. 3 is a plan view of a section of a railway built of my improved ties.

This invention relates to an improvement in railway ties; and consists of a piece or strip of iron—provided with spike-holes at proper places for the reception of the spikes that secure the rails—placed upon the face of the ordinary wooden tie in common use, and extending so nearly the length of the tie as to project three or four inches beyond the extreme edges of the bases of the rails for the purpose of distributing the resistance to the lateral motion of the rails, caused by the lateral motion of passing trains, equally between the four spikes in each tie; and also for lessening, in a great degree, the probability of the spreading track and the breaking of the rails in frosty weather by said lateral motion of the rails, caused as aforesaid.

In the drawing, *a* and *a'* are two forms of the iron piece or strip, provided with spike-holes *b b b b*, arranged so as to place one spike-hole, *b*, immediately at each side of the base of a rail, *c*. *d* is the ordinary wooden tie in common use. The strip of iron *a* or *a'* is placed upon the face of the tie *d*, and extends so near-

ly the length of the tie *d* as to project three or four inches beyond the extreme edges of the bases of the rails *c c*. The strip of iron *a* is preferably made about three inches in width and three-sixteenths of an inch in thickness. The strip of iron *a'* is expanded at the points, which come directly under the bases of the rails *c c* to the width of about eight inches, or so as to form bearings for the rails *c c* of a width equal to the width of the face of the tie *d*. The thickness of the strip *a'* should be uniform throughout, preferably three-sixteenths of an inch.

The operation of the invention is such that the resistance of the iron strip *a* or *a'* causes a lateral motion of the rail *c* to be divided and draw upon all four of the spikes in each tie *d* equally, thereby preventing to a great extent the loosening of the spikes by the jar of passing trains, and lessening in a great degree the probability of spreading the track, or breaking the rails in frosty weather, by a lateral motion of the cars running over the road.

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

The strip of iron *a* or *a'*, provided with spike-holes *b b b b*, placed upon the face of the ordinary wooden tie *d*, substantially as described, for the uses and purposes hereinbefore set forth.

In testimony that I claim the foregoing improvement in railway ties, as above described, I have hereunto set my hand and seal.

DUDLEY B. DAY. [L. S.]

Witnesses:

EDW. GUTHRIE,
H. A. PARSONS, Jr.