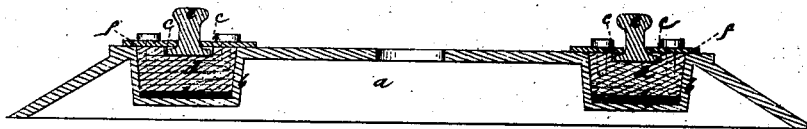


C. FISHER.  
METALLIC SLEEPER FOR RAILWAYS.

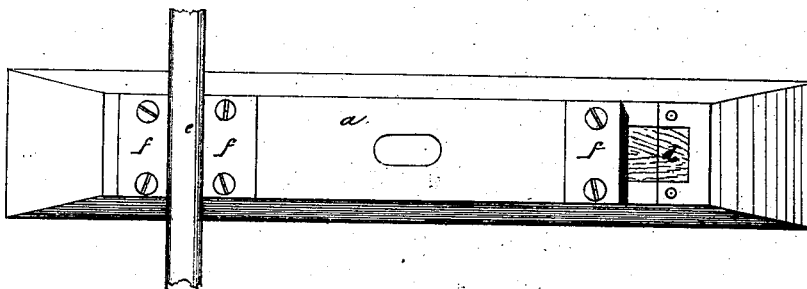
No. 109,504.

Patented Nov. 22, 1870.

*Fig. 1.*



*Fig. 2.*



Witnesses:

*H. J. Street*  
*Thos. D. D. Curran*

Inventor:

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# United States Patent Office.

CYRUS FISHER, OF CANTON, MASSACHUSETTS, ASSIGNOR TO HIMSELF AND  
AUGUSTUS G. FISHER, OF BROOKLYN, NEW YORK.

Letters Patent No. 109,504, dated November 22, 1870.

## IMPROVEMENT IN METALLIC SLEEPERS FOR RAILWAYS.

The Schedule referred to in these Letters Patent and making part of the same.

*To all whom it may concern :*

Be it known that I, CYRUS FISHER, of Canton, in the county of Norfolk and State of Massachusetts, have invented a new and useful Improvement in Metallic Sleepers for Railways; and I do 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 sectional elevation of the sleeper-box, wooden block, and rail; and

Figure 2 is a plan view of the same, with one rail and one of the covering-plates removed.

This invention consists in the arrangement of a hollow metallic tie, boxes cast inside the same near each end, wooden blocks placed on rubber cushions in the boxes, with their fibers running vertically for the purpose of sustaining the rails on slightly-elastic and not easily broken supports, and covering-plates, as hereinafter more fully set forth.

Referring to the drawing—

*a* is the hollow iron tie;

*b*, the boxes, cast inside the same, near its ends;

*c*, grooves running crosswise of the upper surface of the tie and of the boxes *b*;

*d*, the wooden blocks placed on rubber cushion *h*, in the boxes *b*, with their fibers running vertically, the upper ends of said blocks being furrowed to correspond with the grooves *c* of the tie, so that there may be continuous channels running through both block and tie,

the wood projecting up, however, sufficiently far to make the bottoms of the block-grooves enough higher than the bottom of the tie-grooves to support the rails clear of the tie, entirely upon the blocks, the latter also forming bearings for the sides of the bases of the rails;

*e*, the rails; and

*f*, covering-plates, screwed down, one at each side, over the bases of the rails and the tops of those parts of the blocks that project upward past the said bases, so as to be flush with the upper surface of the tie.

The office of the covering-plates is to hold the rails down to the ties and to protect the blocks. The latter, being set up endwise, last longer than as though they were laid on their sides, and as they alone sustain the rails and are themselves sustained upon the rubber cushions *h*, this combination of wood and rubber forms an elastic support and one not easily broken.

Having thus described my invention,

What I claim as new, and desire to secure by Letters Patent, is—

The arrangement of the grooved tie *a*, boxes *b*, grooved blocks *d*, cushions *h*, and covering-plates *f*, in the manner and for the purpose specified.

CYRUS FISHER.

Witnesses:

WM. G. CUMMING,  
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