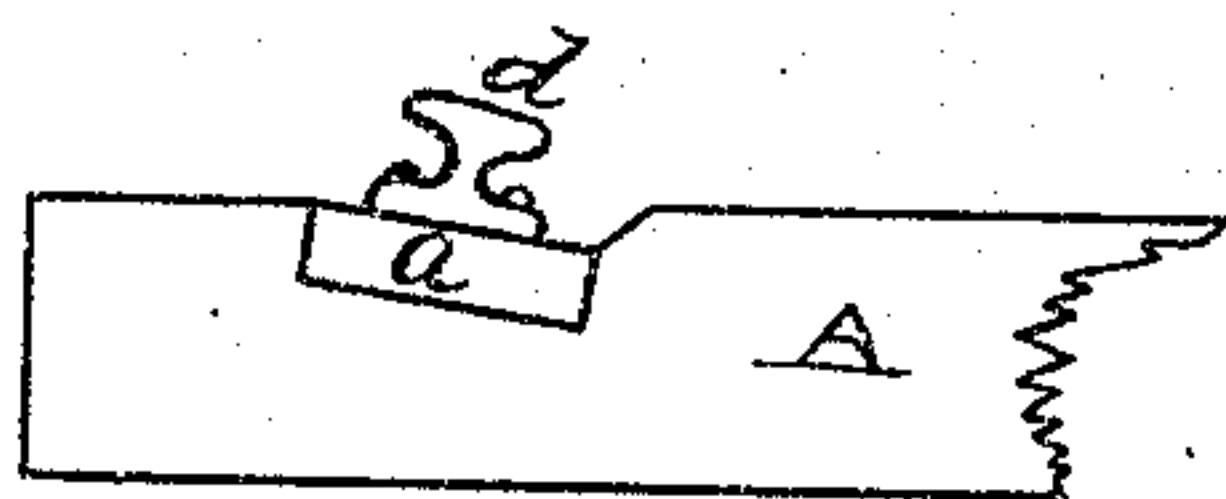


Willard A. Nichols

117449

Imp'd. Sleeper PATENTED JUL 25 1871



Witness

Fred Foster  
John Williams

Inventor

Willard A. Nichols  
per Wm Franklin Gearing Atty

# UNITED STATES PATENT OFFICE.

WILLARD A. NICHOLS, OF MATTAWAMKEAG, MAINE.

## IMPROVEMENT IN RAILWAY TIES.

Specification forming part of Letters Patent No. 117,449, dated July 25, 1871.

*To all whom it may concern:*

Be it known that I, WILLARD A. NICHOLS, of Mattawamkeag, in the county of Penobscot and State of Maine, have invented a new and useful Improved Railway Sleeper; and I hereby declare the following to be a full, clear, and exact description thereof, which will enable others to make and use my invention, reference being had to the accompanying drawing forming a part of this specification, in which is shown a side view of my improved sleeper with the rails shown in place.

This invention is an improvement on the tie of Woodsum and Whitman, granted June 29, 1869; and it consists in the insertion of a piece of hard wood, which may be cut from ordinary strips of plank, into inclined recesses or cavities cut transversely from the tie, the tie being of softer wood. In the patent referred to the blocks or sections of plank are set in the tie with their surfaces parallel with that of the tie itself, so that if it is desired to set the rail inclined the surface must be cut away, thereby making it necessary to handle the ties a second time. I cut the cavity in the tie by a rectangular cutting-tool inclined to the tie, so that the ends of the cut shall be inclined

from the perpendicular and the bottom inclined toward the center of the tie. In this way small blocks cut from ordinary strips of plank may be inserted in the cavity, and the inclined surface be at the same time secured. I thus am able to set the rails upon the ties inclined inward, presenting the surface of the head to the inclined tread of the wheel, and, at the same time, use the Woodsum and Whitman tie with no increase in the cost of the tie.

I am aware that rails have been set inclined inward in order to present a greater surface to the tread of the wheel, and do not claim this arrangement; but

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

A railway tie, in which the bearing for the rail is formed by a piece of harder wood inserted therein, when the said piece is of rectangular section and set in an inclined recess, in the manner shown and described.

WILLARD A. NICHOLS.

Witnesses:

WM. FRANKLIN SEAVEY,  
FRED FOSTER.