

(No Model.)

W. H. WILSON.  
RAILROAD TIE PLATE.

No. 522,867.

Patented July 10, 1894.

Fig: 1.

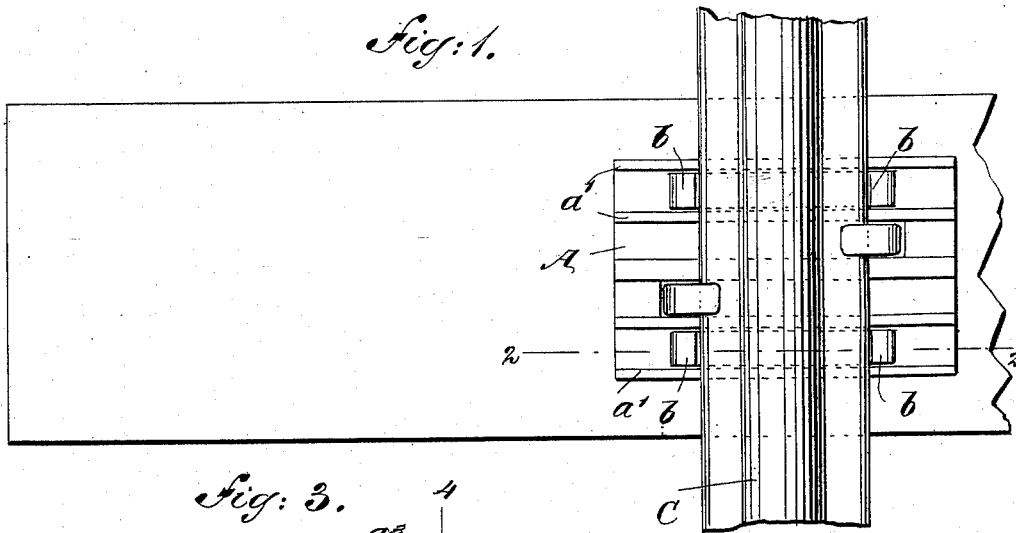


Fig: 3.

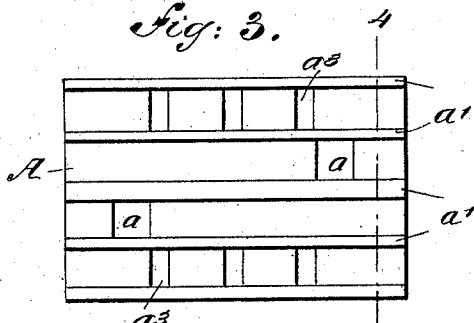


Fig: 2.

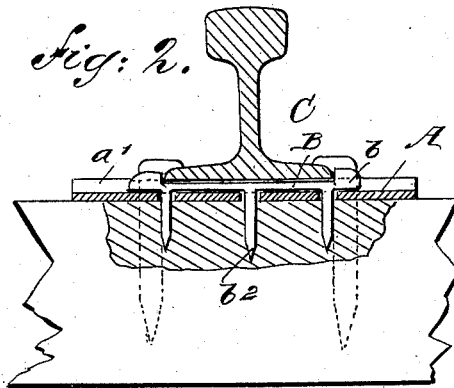


Fig: 4.

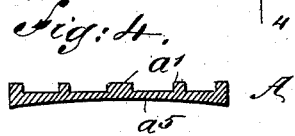


Fig: 5.

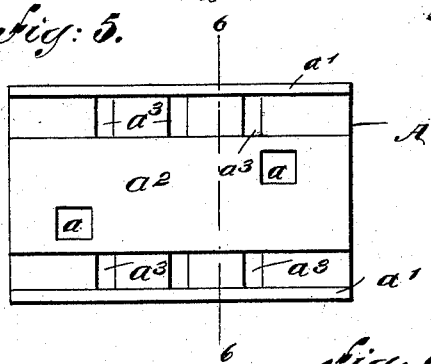


Fig: 7.

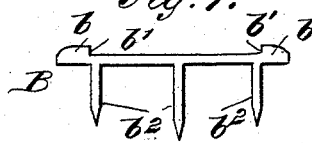


Fig: 8.

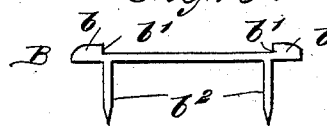
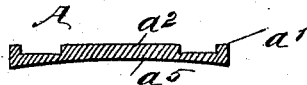


Fig: 6.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

WALTER H. WILSON, OF NEW YORK, N. Y., ASSIGNOR TO RICHARD H. SMITH, OF SAME PLACE.

## RAILROAD-TIE PLATE.

SPECIFICATION forming part of Letters Patent No. 522,867, dated July 10, 1894.

Application filed April 26, 1894. Serial No. 509,111. (No model.)

*To all whom it may concern:*

Be it known that I, WALTER H. WILSON, of New York city, in the county and State of New York, have invented a new and useful Railroad-Tie Plate, of which the following is a full, clear, and exact description.

The invention relates to the plates that are laid on and secured to wooden railroad ties, beneath the rails, for the purpose of preserving the ties, and the object of the invention is to provide a novel plate of this character having improved guards for the rail securing spikes, for effectively preventing shearing and grinding of the spikes by the rails.

The invention consists in the novel features hereinafter particularly described and defined in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the views.

Figure 1 is a broken plan view showing my improved tie plate applied. Fig. 2 is a sectional side elevation, the section being taken on the line 2—2 in Fig. 1. Fig. 3 is a plan view of the plate. Fig. 4 is a cross section on the line 4—4 in Fig. 3. Fig. 5 is a plan view illustrating a slightly modified construction. Fig. 6 is a cross section on the line 6—6 in Fig. 5; and Figs. 7 and 8 are side elevations, of different forms of guard devices employed in connection with the plate, to prevent shearing of the spikes.

In constructing a tie plate and its appurtenances in accordance with my invention, the plate A is formed with spike holes  $a$  properly located, and with longitudinal ribs on its upper surface to prevent buckling of the plate under the weight of the rail and passing trains, and these may consist of a series of narrow ribs  $a'$  of substantially equal width, as in Figs. 1, 3 and 4, or two narrow ribs  $a'$  at the sides and a broad central thickened portion  $a^2$ , as in Figs. 5 and 6.

In connection with the tie plate, separate guard devices B are employed, the guards being preferably of a proper thickness throughout the major portion of their length to be received between two ribs of the plate A and without projecting above the same, and the ends of the guards are thickened to provide heads  $b$ , which afford shoulders  $b'$ , such shoulders being spaced apart sufficiently

to accommodate between them the flange of a rail C. The guards are provided on their under sides with spike-like formations or securing shanks  $b^2$ , which may be three in number as in Figs. 2 and 7, two in number as in Fig. 8, or any other suitable number desired, and for the entrance of such securing shanks the plate A is provided with the desired number of orifices  $a^3$ .

The under side of the plate A is preferably concaved as at  $a^5$ , which construction causes the plate to so bed itself in the tie as to crowd the fibers toward the center of the plate and form an improved elastic support, and enables the tie to better withstand wear. This feature is however, not claimed in the present application, but in another application filed by me.

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

1. The combination with a tie plate, of guards for the rail securing spikes, the guards being separate from the plate, and having spike-like shanks adapted to enter a tie, substantially as described.

2. The combination, with a tie plate, of guards for the rail securing spikes, said guards being separate from the plate, ranging longitudinally of the same and having heads at their ends, the heads being spaced for receiving the rail flange between them, the guards further having spike-like shanks adapted to enter a tie, substantially as described.

3. The combination, with a tie plate, of separate guards for the rail securing spikes, the guards having spike-like shanks projecting from the under sides and the plates having orifices for the passage of such shanks, substantially as described.

4. The combination, with a tie plate, having longitudinal ribs on its upper surface, of guards for the rail securing spikes, the guards being separate from the plate, fitting between the longitudinal ribs thereof, and having means for securing them, substantially as described.

WALTER H. WILSON.

Witnesses:

JNO. M. RITTER,  
J. L. MCAULIFFE.