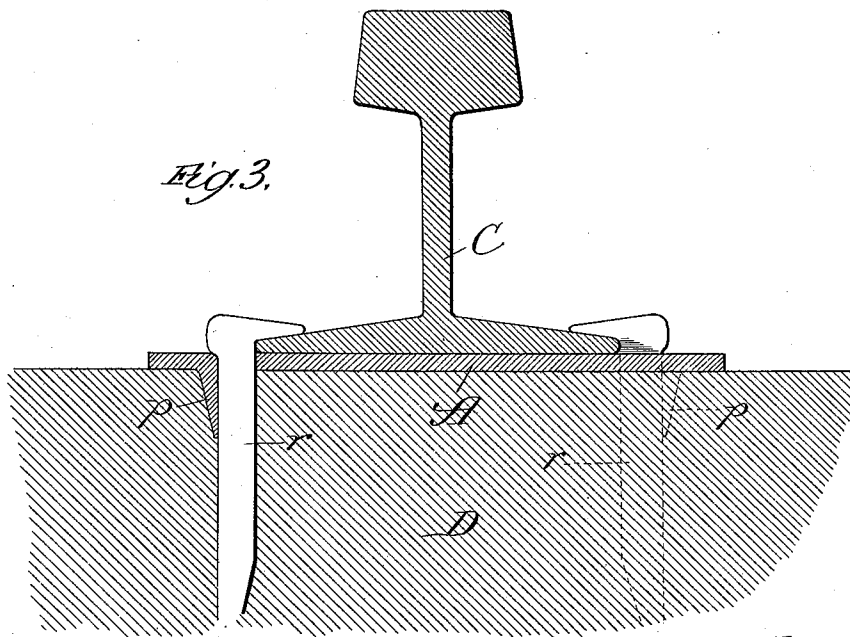
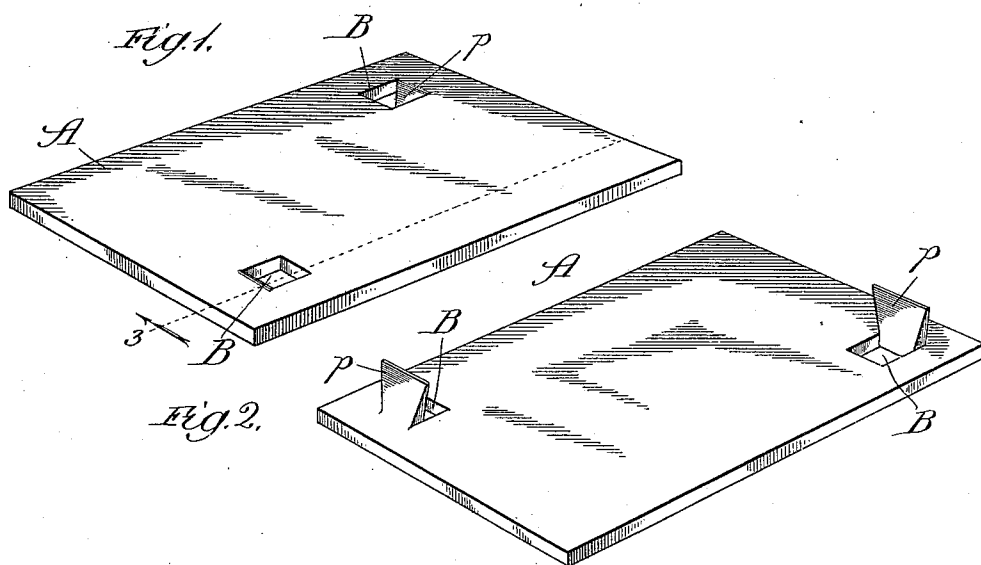


(No Model.)

M. M. MOORE.
TIE PLATE.

No. 579,764.

Patented Mar. 30, 1897.



Witnesses:
C. S. Gaylord,
L. J. Moore.

Inventor:
Moses M. Moore,
By Dyrenforth & Dyrenforth,
Att'ys.

UNITED STATES PATENT OFFICE.

MOSES M. MOORE, OF CHICAGO, ILLINOIS, ASSIGNOR OF ONE-HALF TO
NATHAN W. WILLIAMS, OF SAME PLACE.

TIE-PLATE.

SPECIFICATION forming part of Letters Patent No. 579,764, dated March 30, 1897.

Application filed January 2, 1897. Serial No. 617,802. (No model.)

To all whom it may concern:

Be it known that I, MOSES M. MOORE, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Tie-Plates, of which the following is a specification.

My invention relates to an improvement in the class of devices termed "tie-plates" by reason of their use as bed-plates for the rails of railway-tracks to interpose a metal bearing between the wooden tie and rail. These tie-plates are commonly provided with drive-points projecting downward from their edges to enter the tie and with holes through which to drive the spikes, which serve to fasten them down, as also to fasten down upon them the rail at its flanges.

The primary object of my improvement is to afford in such tie-plates expanded metal bearings for the spikes at the holes through which they are driven, thereby to enhance the stability of the spikes in the wooden ties into which they are driven and to reinforce the wood of the ties against the spreading tendency of the rails under the strain to which they are subjected. To this end I provide the tie-plates with their drive-points for penetrating the wood of the ties adjacent to the spike-holes, whereby when the spikes are driven through the holes into the ties they may bear against the surfaces of the downward-projecting drive-points in the direction of the lateral strain against the rails.

Referring to the accompanying drawings, Figure 1 is a perspective view of my improved tie-plate, showing its upper side; Fig. 2, a similar view of the same, showing its lower side; and Fig. 3, an enlarged section of the tie-plate, taken at the line 3 on Fig. 1 and viewed as indicated by the arrow, the view presenting the tie-plate in operative position on a tie to which a rail is spiked.

A is a tie-plate, which I prefer to form by stamping it out of sheet-steel and of the rectangular shape illustrated.

B B are the spike-holes, also shown in their preferred rectangular shape, provided at proper points to flank the flanges of a rail C, which seats on the plate, so that when spikes *r* are driven through the holes the spike-heads

will overlap the rail-flanges to fasten the rail down upon the tie D. From a side of each hole B, which should be the side thereof toward which the lateral strain against the rail is exerted—thus either the outer side, as shown, or one on the outer and one on the inner side—there projects downward a prong *p*, termed a "drive-point," which may best be formed of the material cut out of the blank of the tie-plate in producing the hole, by leaving one side of the cut material unsevered from the blank and bending it downward to extend at a suitable angle (right angle) to the surface of the plate. The extremities of these prongs are sharpened to facilitate driving them, as by passing them between suitable squeezing-rolls, which "point" them and at the same time widen them somewhat toward their points; thus increasing accordingly the metal bearing-surfaces they present to the spikes.

To apply my improved tie-plate, it is imposed upon and the points *p* are driven into a railroad-tie; and when a rail C is laid across ties equipped with the plates A spikes are driven through the holes B into the ties, being guided by the adjacent surfaces of the points with which they are in bearing-contact when driven home, so that the points present metal bearing-surfaces throughout the extent of their penetration into the ties to the spikes, and thus tend to supplement and augment the resistance of the ties to loosening of the spikes under the lateral strain to which the track-rails are subjected.

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

1. In a tie-plate, a spike-hole having a drive-point projecting from a surface of the plate at the side of said hole at which it affords to a spike driven through it a backing opposing the outward strain against the rail, substantially as described.

2. In a tie-plate, a spike-hole formed in the body of the plate wholly within the edges thereof and having a drive-point projecting from a surface of the plate at the side of said hole at which it affords to a spike driven through it a backing opposing the outward strain against the rail, substantially as described.

3. In a tie-plate, a spike-hole having a

drive-point projecting at a side thereof from a surface of said plate and sharpened and widened toward its extremity, said point affording a bearing for a spike driven through
5 the hole, substantially as and for the purpose set forth.

4. In a tie-plate A, the holes B, B having the material cut from the plate in forming each unsevered at one side thereof and projected from the surface of said plate to form

a drive-point *p*, said points being sharpened and widened toward their extremities and affording bearings for spikes driven through said holes, substantially as and for the purpose set forth.

MOSES M. MOORE.

In presence of—
R. T. SPENCER,
M. J. FROST.