

No. 689,030.

Patented Dec. 17, 1901.

J. W. STEPHENSON.

RAILWAY TIE PLATE.

(Application filed Mar. 12, 1901.)

(No Model.)

Fig. 2.

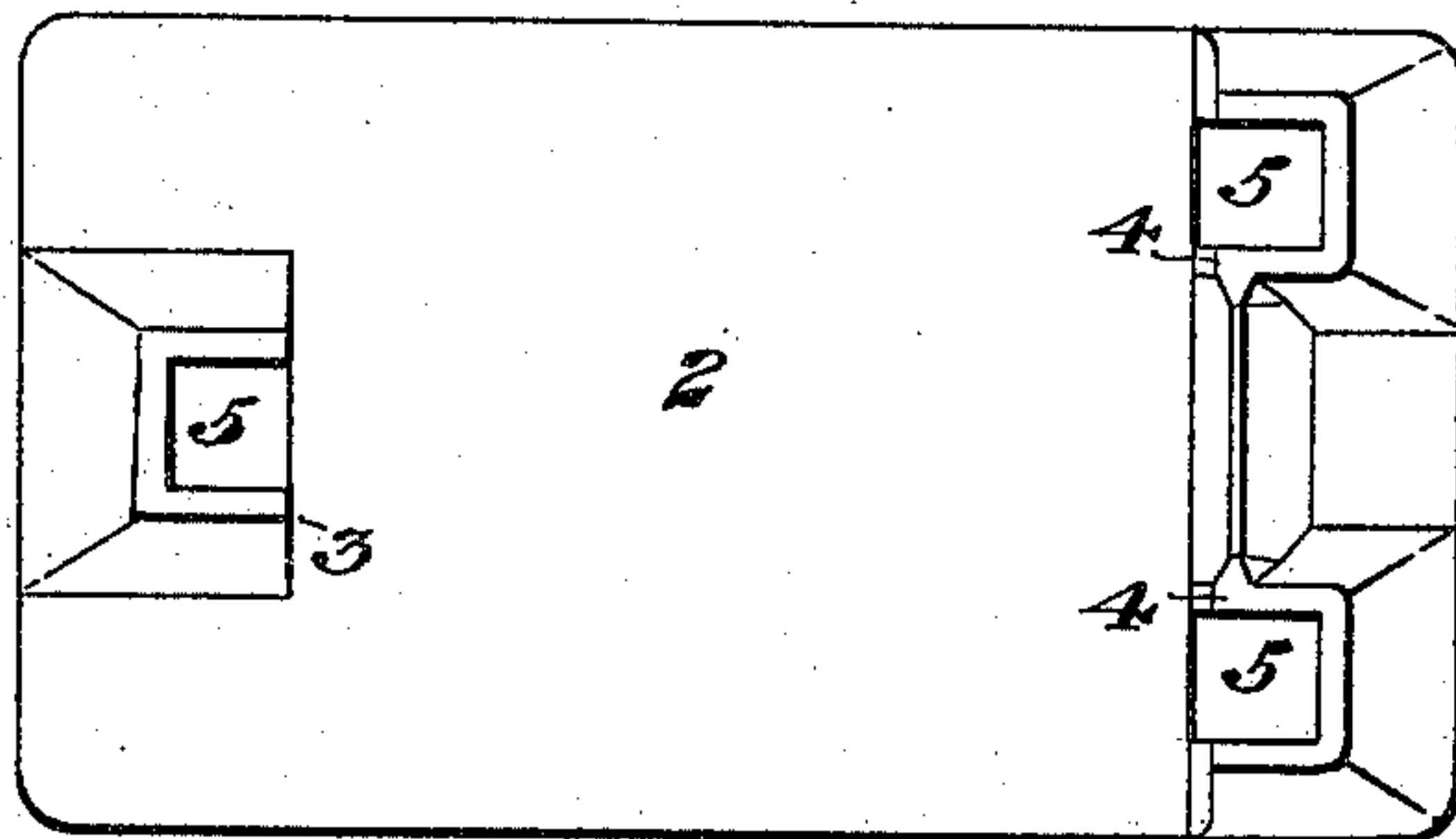


Fig. 3.

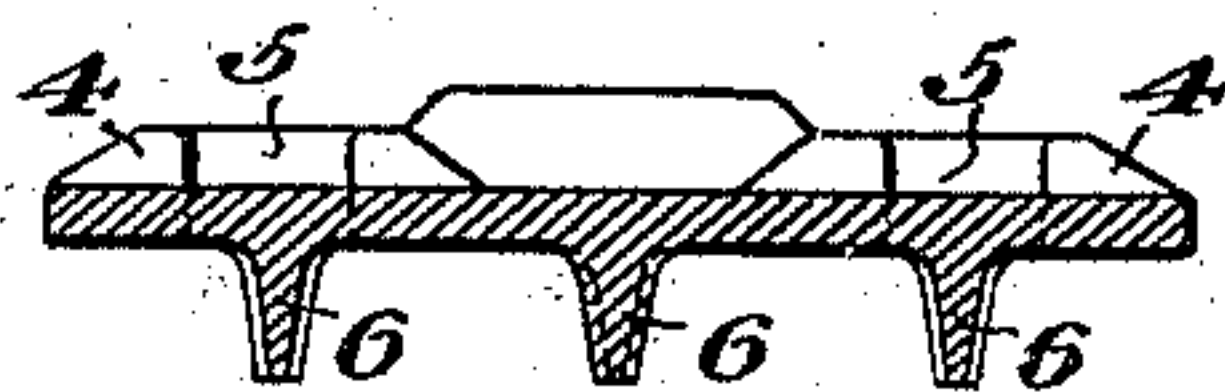
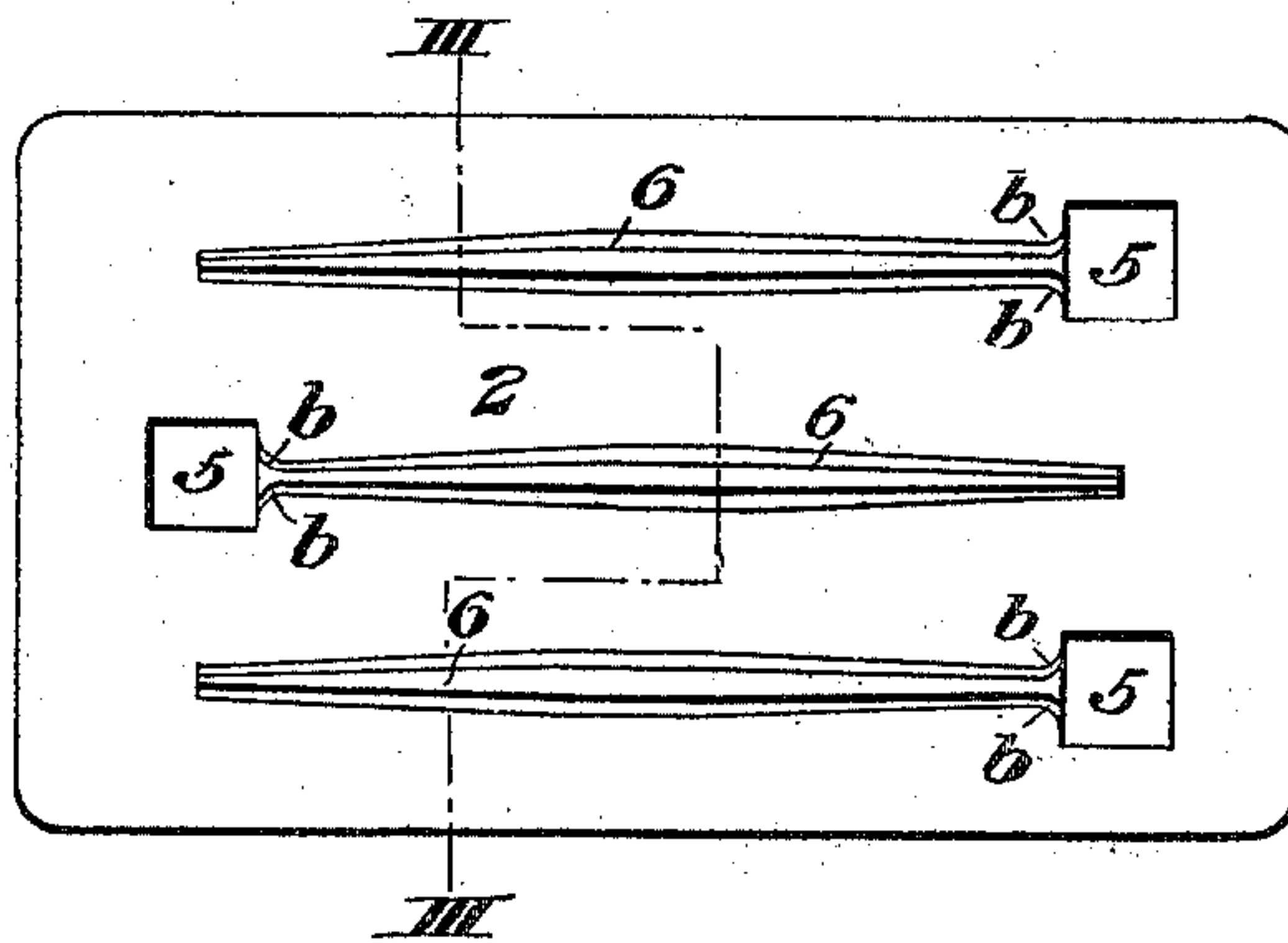


Fig. 1.



WITNESSES

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JOHN W. STEPHENSON, OF TOLEDO, OHIO, ASSIGNOR TO THE NATIONAL MALLEABLE CASTINGS COMPANY, OF CLEVELAND, OHIO, A CORPORATION OF OHIO.

RAILWAY-TIE PLATE.

SPECIFICATION forming part of Letters Patent No. 689,030, dated December 17, 1901.

Application filed March 12, 1901. Serial No. 50,815. (No model.)

To all whom it may concern:

Be it known that I, JOHN W. STEPHENSON, of Toledo, in the county of Lucas and State of Ohio, have invented a new and useful Railway-Tie Plate, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 shows in bottom plan view a tie-plate constructed in accordance with my invention. Fig. 2 is a top plan view thereof, and Fig. 3 is a vertical cross-section on the line III III of Fig. 1.

I have discovered that railway-tie plates can be greatly improved by forming the ribs on the under side of the plates thicker at the middle and tapering from the middle substantially to the ends, for in this way I impart greater rigidity to the tie-plate and prevent it from buckling when in use. I have also discovered that by placing the spike-holes immediately at the ends of the ribs and enlarging such ends a desirable result is secured, because I thus afford an enlarged abutment against which the spike can bear. The abutment gives greater stability to the tie-plate and diminishes the wear and generally makes the tie-plate stronger and more efficient.

In the drawings, 2 represents the tie-plate, having on its surface shoulders 3 4, between which the rail may be set, and having holes

5 5 for spikes by which the plate is secured to the tie. On the under side of the plate are ribs 6 6, which extend at right angles to the rail, so as to be parallel with the grain of the wood, and at their middle portions are enlarged laterally, tapering from the middle substantially to the ends, with the advantages above stated. The spike-holes 5 5 are immediately at the ends of the ribs, and at the places where the ribs meet the holes the ribs are enlarged, as at *b b*, so as to form an extended bearing for the spikes.

I claim—

1. A tie-plate having on its under side ribs which extend at right angles to the position of the rail, said ribs being wider at the middle than at the ends, and tapering from the middle substantially to the ends; substantially as described.

2. A tie-plate having ribs on its under side, spike-holes formed immediately at the ends of the ribs, said ribs being widened at their ends at the spike-holes; substantially as described.

In testimony whereof I have hereunto set my hand.

JOHN W. STEPHENSON.

Witnesses:

THOMAS W. BAKEWELL,
H. M. CORWIN.