(No Model.)

W. W. HOLMES.

RAILWAY TIE PLATE.

No. 495,807. Patented Apr. 18, 1893.

Fig. 1.

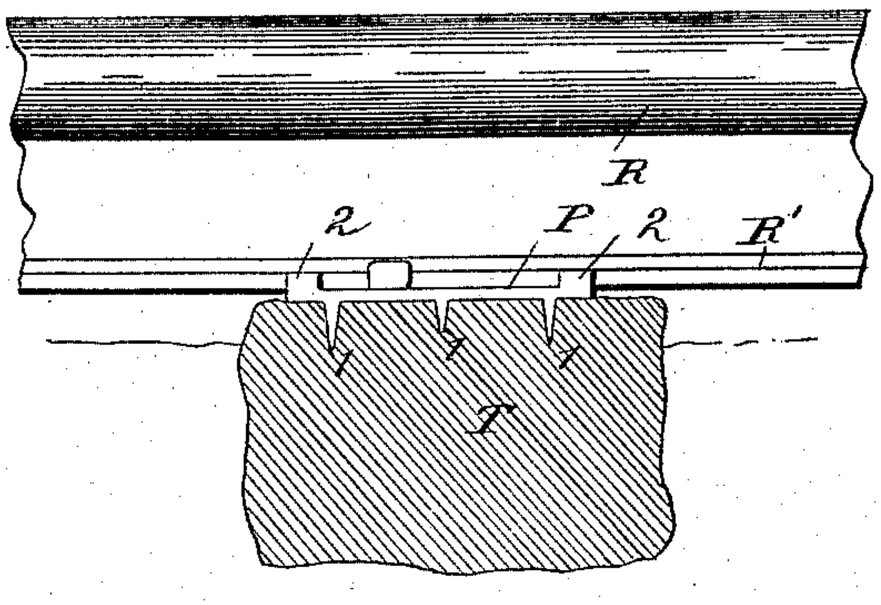


Fig. 2.

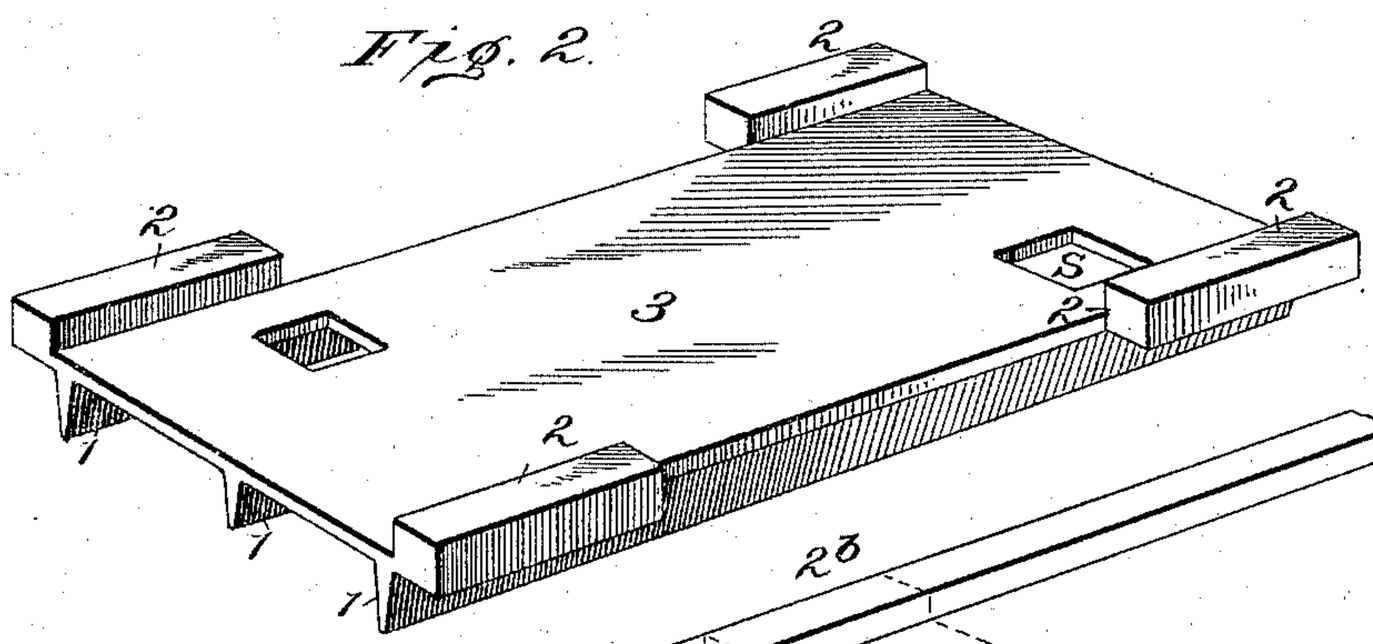


Fig. 3.

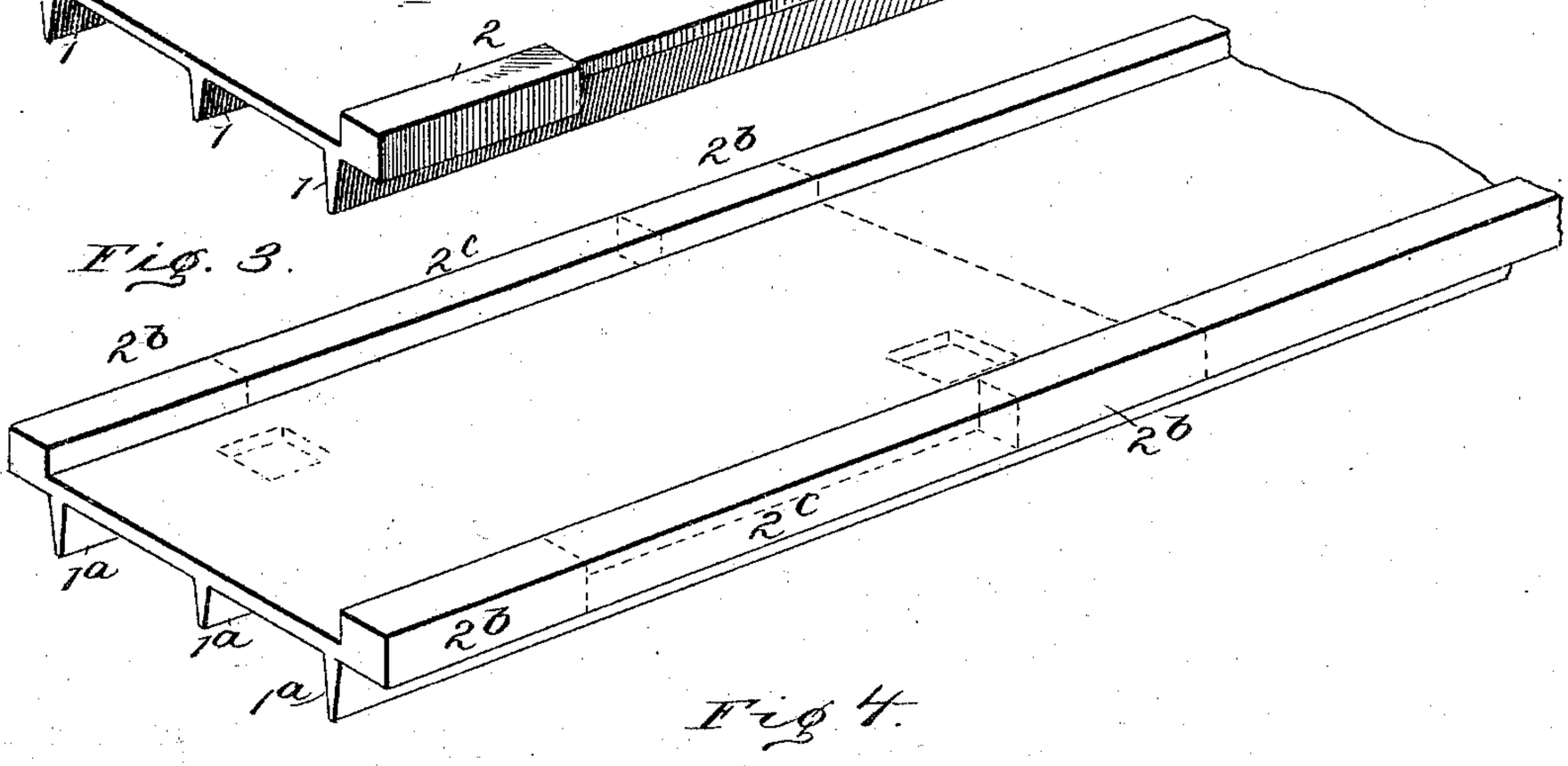
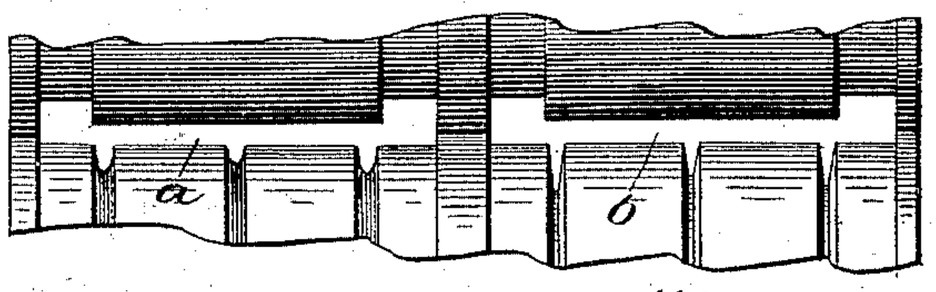


Fig 4.



Witnesses
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UNITED STATES PATENT OFFICE.

WILLIAM W. HOLMES, OF CHICAGO, ILLINOIS, ASSIGNOR TO THE Q. & C. COMPANY, OF SAME PLACE.

RAILWAY-TIE PLATE.

SPECIFICATION forming part of Letters Patent No. 495,807, dated April 18, 1893.

Application filed November 5, 1892. Serial No. 451,095. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM W. HOLMES, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Railway-Tie Plates; and I hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, wherein—

Figure 1, is a view of portions of a rail and tie, and an end view of an interposed tie plate embodying my invention. Fig. 2, is a detached perspective view of a tie plate embodying my invention. Fig. 3, is a perspective view of a portion of a bar adapted to the making of my improved tie-plate, and Fig. 4, is a view of portions of two rolls adapted to produce the tie-plate-bar shown in Fig. 3.

Like symbols refer to like parts wherever they occur.

My present invention relates to the construction of that class of railway tie-plates, wherein the plate is formed with one or more truss ribs upon its under surface, and a series of projections or abutments on its upper surface for the foot flange of the rail; and has for its object such a form of tie plate as will permit of its being rapidly and economically produced without weakening the structure of the plate proper.

To this end, the invention generally stated, consists in a tie plate having on its under surface one or more longitudinal truss ribs, and on its upper surface and projecting laterally from its edges a series of abutments for the foot flange of the rail substantially as will hereinafter more fully appear.

I will now proceed to describe my invention more fully so that others skilled in the art to which it appertains may apply the same.

In the drawings R indicates the rail, R′ the foot flange thereof, T the tie, and P a tie-plate interposed between the rail and tie. This tie-plate P, I form with one or more longitudinal truss ribs 1 upon its under surface, said ribs so disposed as to permit the plate to be punched at the desired points for the spike holes *s;* and also with a series of abutments 2, 2, upon its upper surface and projecting laterally therefrom, so arranged as to form and border the plane 3, which constitutes the seat for the foot-flange R′ of the rail.

In order to rapidly and economically manufacture a tie-plate of the general form set forth I first produce a plate or bar (see Fig. 3) having upon one face one or more longitudinal ribs 1^a and on the opposite face adjacent to the edges of the bar longitudinal ribs 2^b—and such a bar can be readily produced by rolls having passes *a b* as shown in Fig. 4. This bar is then subjected to punches (not shown) which strike out the sections 2^c (see Fig. 3) thus leaving the abutments 2 (see Fig. 2) which project laterally from the edges of the tie-plate, and prevent any lateral movement of the rail. Owing to the location and arrangement of the abutments 2, 2, the flexibility of the plate is not diminished, and at the same time the plate can be manufactured by economical methods without material loss of substance, and without weakening the plate beneath the foot-flange of the rail where the tendency to buckle and break occurs.

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

1. A railway tie-plate having one or more truss ribs on its under surface, and on its upper surface a series of abutments which project laterally from and above the edges of the plate; substantially as and for the purposes specified.

2. A railway tie-plate having a truss rib on its under surface adjacent to the lateral edges of the plate, and on its upper surface abutments which project laterally from and above the edges of the plate; substantially as and for the purposes specified.

In testimony whereof I affix my signature, in presence of two witnesses, this 25th day of October, 1892.

WILLIAM W. HOLMES.

Witnesses:
S. F. JOHNSON,
GEORGE A. POWELL.