

No. 837,187.

PATENTED NOV. 27, 1906.

E. J. BURR.
TIE PLATE.

APPLICATION FILED JAN. 13, 1906.

2 SHEETS—SHEET 1.

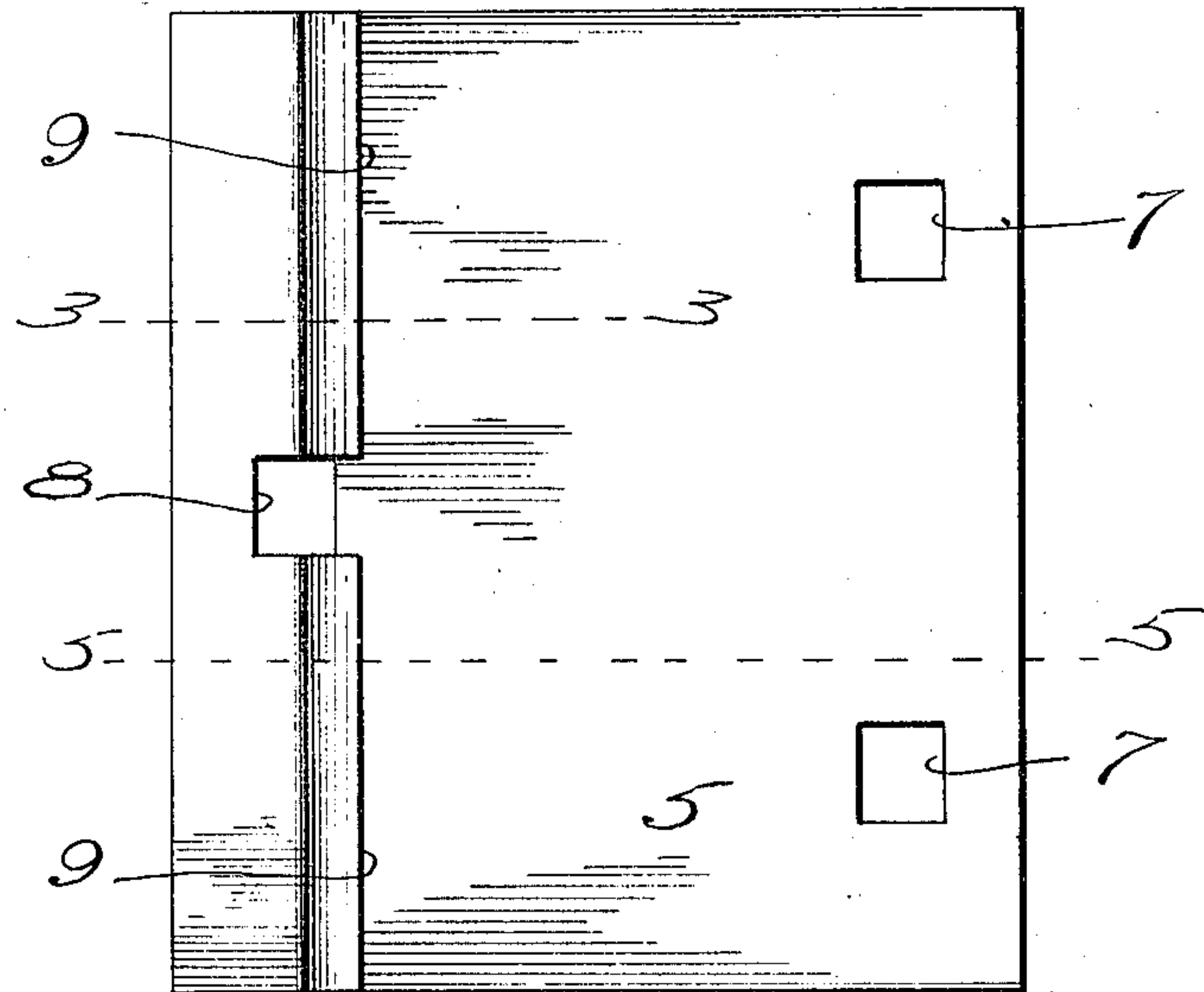


Fig. 1

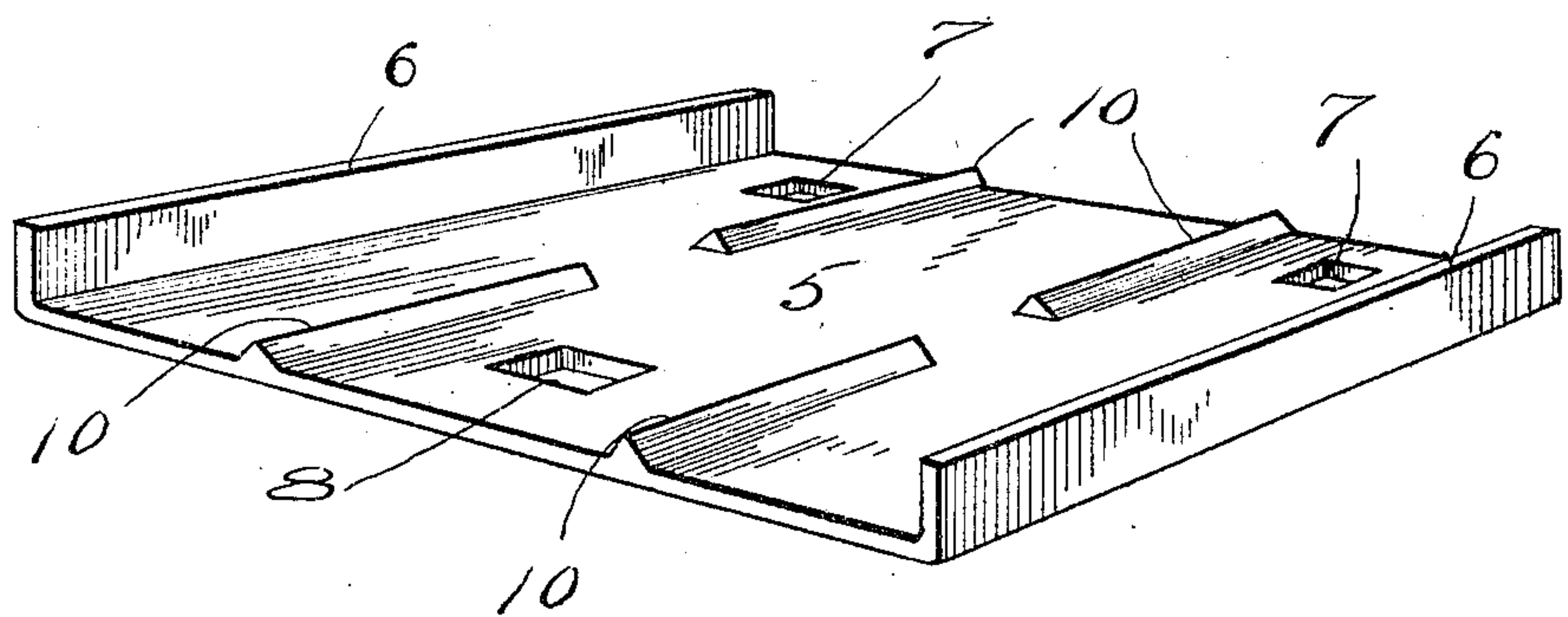


Fig. 2

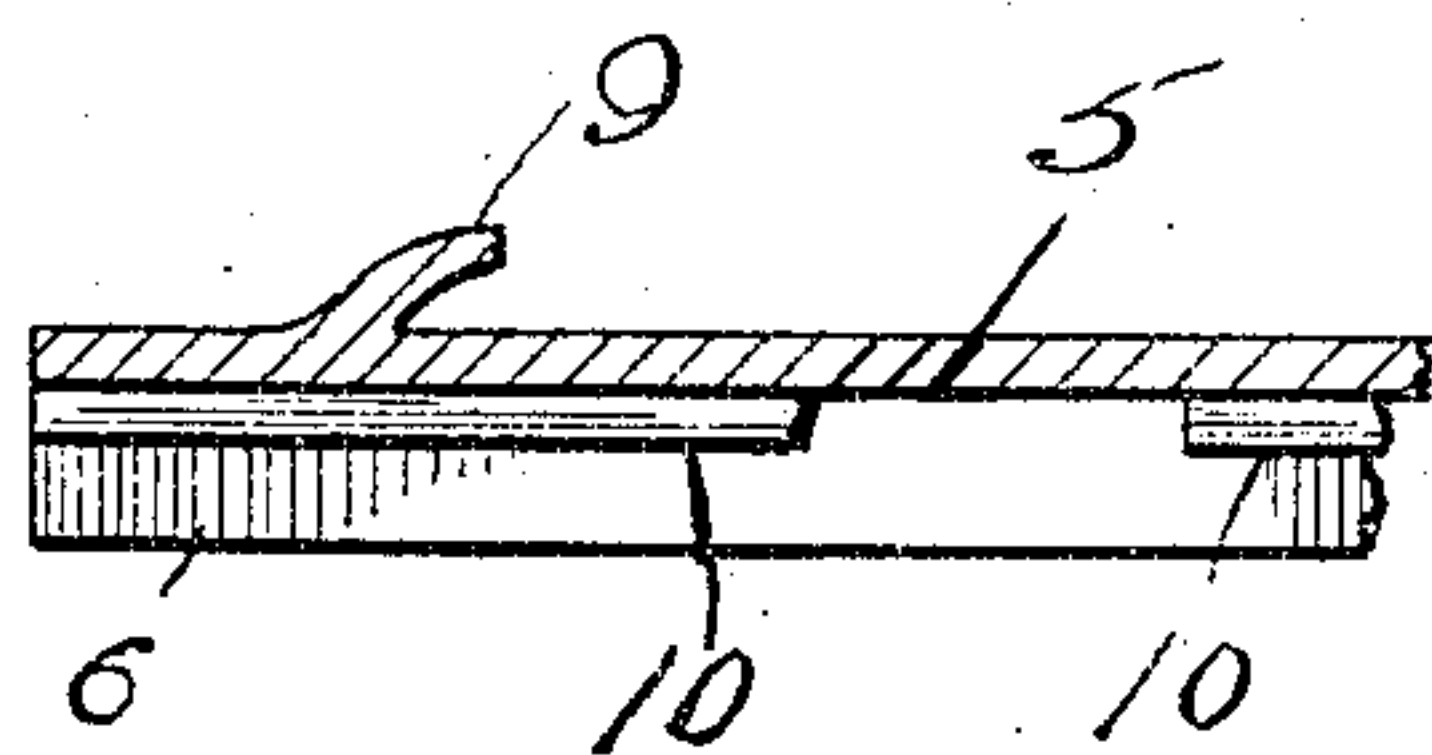


Fig. 3

Witnesses
J. C. Simpson.
J. C. Jones

Inventor
Elizabeth J. Burr.
By *Charles Chandler*
Attorneys

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Fig. 4.

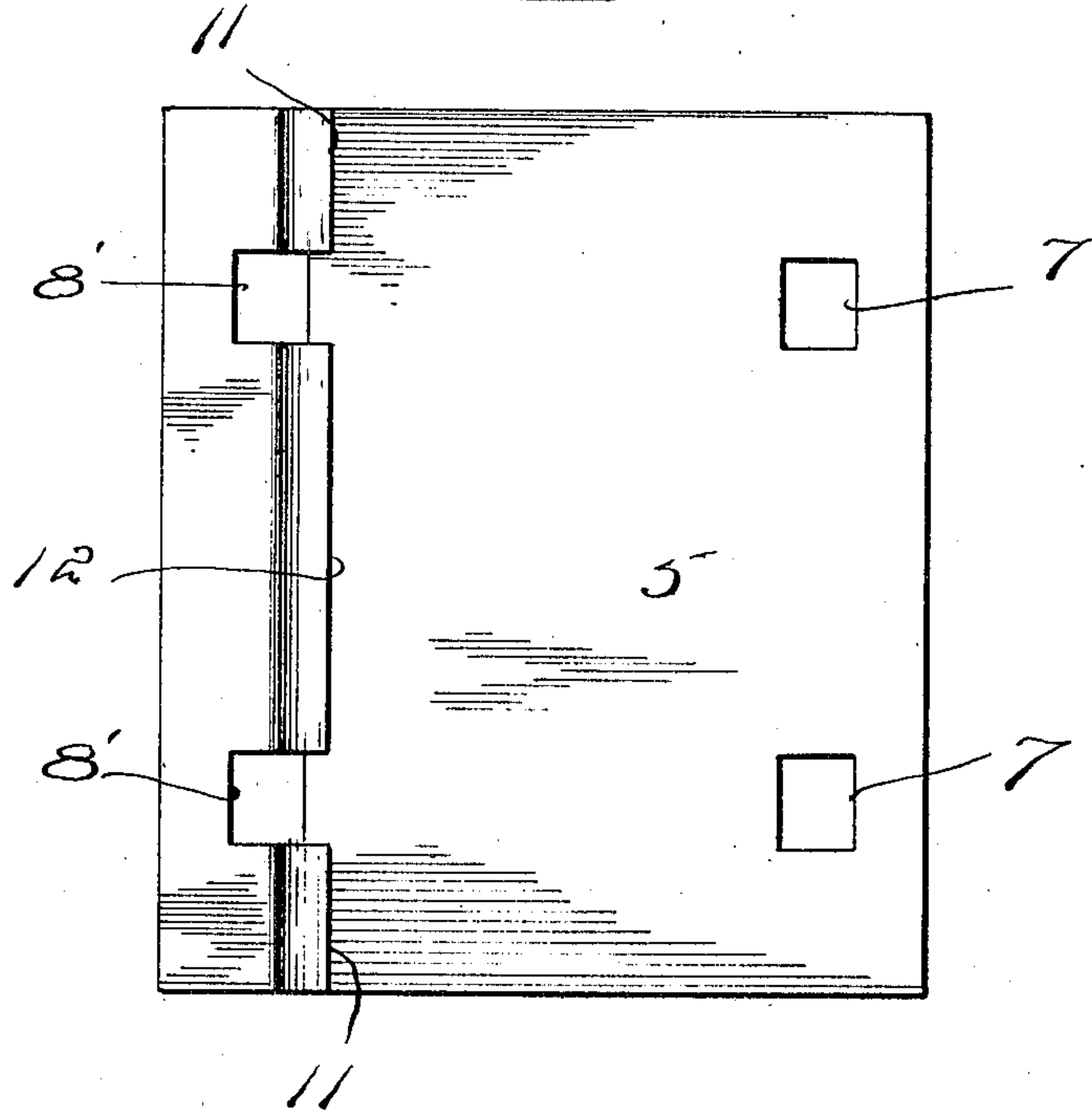
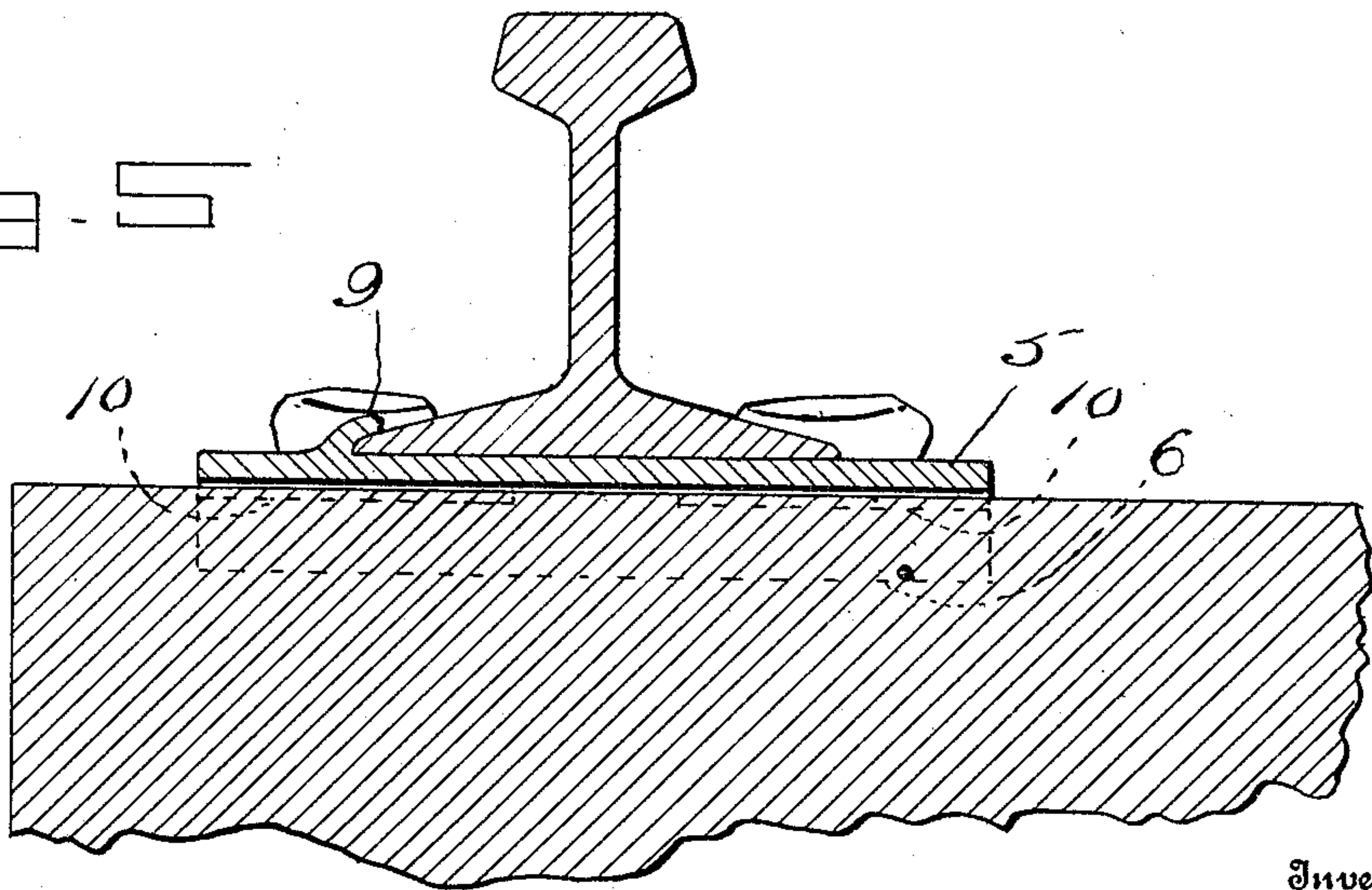


Fig. 5.



Witnesses

J. C. Simpson.
J. P. Jones.

Inventor

Elizabeth J. Burr.

By

Charles Chandler

Attorneys

UNITED STATES PATENT OFFICE.

ELIZABETH J. BURR, OF MOUNDS, UTAH.

TIE-PLATE.

No. 837,187.

Specification of Letters Patent.

Patented Nov. 27, 1906.

Application filed January 13, 1906. Serial No. 295,879.

To all whom it may concern:

Be it known that I, ELIZABETH J. BURR, a citizen of the United States, residing at Mounds, State of Utah, have invented certain new and useful Improvements in Tie-Plates; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to railroads, and more particularly to tie-plates, and has for its object to provide a tie-plate which will prevent sinking of the rails into the ties and which will be also arranged to prevent lateral movement of the rails.

Other objects and advantages will be apparent from the following description.

In the drawings forming a portion of this specification, and in which like numerals of reference indicate similar parts in the several views, Figure 1 is a top plan view of the plate used between the ends of rails. Fig. 2 is a perspective view showing the under side of the plate. Fig. 3 is a detail section on line 3 3 of Fig. 1, taken transversely of the rail-engaging rib. Fig. 4 is a top plan view of the plate used at rail-joints. Fig. 5 is a section taken on line 5 5 of Fig. 1, the plate being shown upon a tie and with a rail in position thereupon.

Referring now to the drawings, there is shown in Fig. 1 a plate 5 adapted for disposal upon a tie and having depending flanges 6 at two opposite edges which are arranged to extend downwardly over the sides of a tie. These flanges are at what may be termed the "ends" of the plate. Adjacent to one side edge the plate 5 is provided with two spike-openings 7, which aline longitudinally of the plate, and adjacent to the opposite side edge the plate is provided with a spike-opening 8 between its ends, and at opposite sides of this opening, at the inner portion thereof, there are longitudinally-extending rail-engaging ribs 9, which aline with each other and which have their inner edge faces slanted downwardly and outwardly for engagement of their inner portions over the base-flange of

a rail. Upon the under face of the plate 5 there are formed a plurality of transversely-extending depending ribs 10, which are cross-sectionally triangular and which have their apices directed downwardly. These ribs 10 aline transversely in pairs, two of them lying between the openings 7 and two of them lying at opposite sides of the opening 8.

In Fig. 4 there is shown a form of the invention for use in connection with rails at their meeting ends, and in this form two spike-openings 8' are provided in place of the single opening 8 of the first-described form. Short ribs 11 extend outwardly from the openings 8' longitudinally of the plate, and an intermediate rib 12 alines with the ribs 11 and extends between the openings 8', it being understood that these ribs 11 and 12 are located at the inner portions of the openings 8'.

In use the plate 5 is disposed upon a tie with its flanges 6 at opposite sides thereof and with its ribs 10 resting thereupon, the ribs being, in effect, barbs to prevent movement of the plate upon the tie. A rail is then disposed upon the plate between the openings 7 and the opening 8 and with one side of its base-flange against and engaged beneath the inner portions of the ribs 9. Spikes are then driven into the several spike-openings to hold the rail against displacement, these spikes being engaged in the tie.

At the meeting ends of two rails the plate shown in Fig. 4 is used, the rails being disposed with their ends between the pairs of openings at the ends of the plate, the rails resting against the ribs 11 and 12, as will be understood.

What is claimed is—

A tie-plate comprising a plate having downwardly-turned flanges at its ends adapted for engagement at opposite sides of a tie, said plate having transversely-extending alining pairs of tie-engaging ribs upon its under surface terminating short of the lower edges of the flanges, said plate having a spike-receiving opening formed therethrough adjacent to one side and between two of the tie-engaging ribs and having a pair of spike-receiving openings formed therethrough adjacent to its

opposite side and between the tie-engaging
ribs and the flanges, said plate having a pair
of upwardly-extending rail-engaging ribs
formed thereupon in longitudinal alinement
5 at opposite sides of the first-named opening,
said rail-engaging ribs being deflected to-
ward the remote side of the plate.

In testimony whereof I affix my signature
in presence of two witnesses.

ELIZABETH J. BURR.

Witnesses:

A. BALLINGER,
R. W. CROCKETT.