

No. 875,100.

PATENTED DEC. 31, 1907.

S. G. PETTERSON.  
RAIL FASTENER.

APPLICATION FILED APR. 17, 1907.

2 SHEETS—SHEET 1.

Fig. 1.

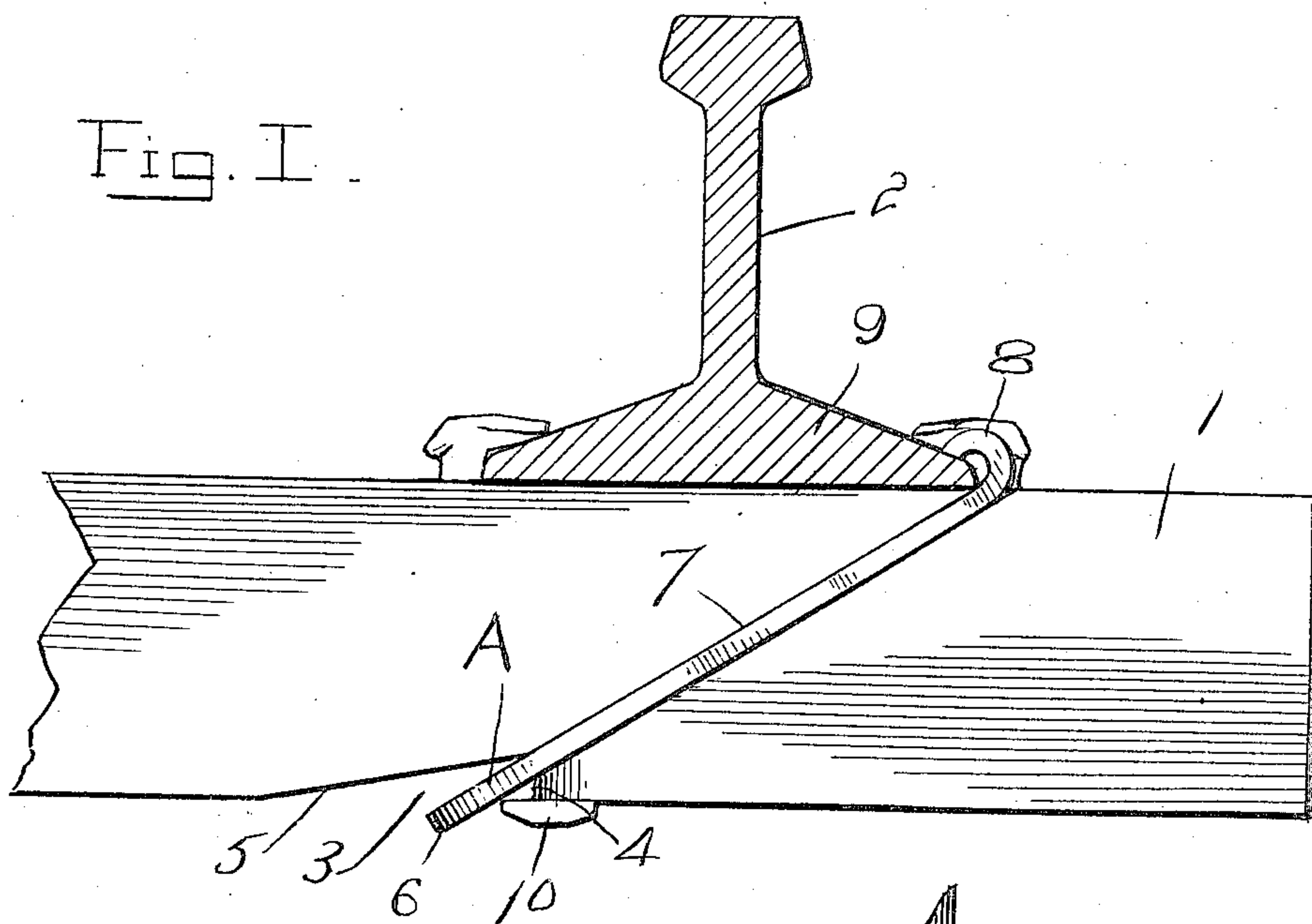
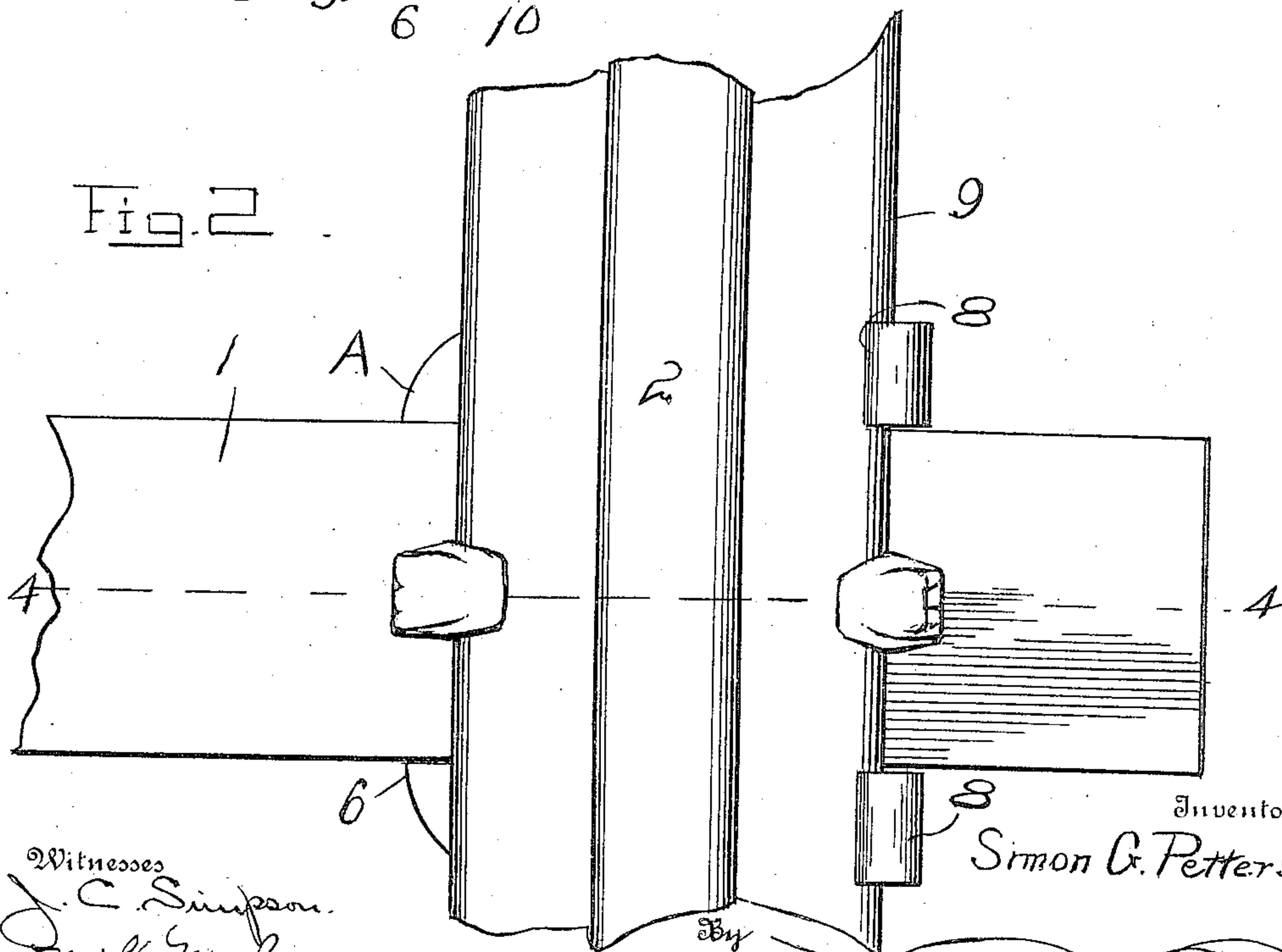


Fig. 2.



Witnesses  
J. C. Simpson.  
H. L. McKee.

Inventor  
Simon G. Peterson

By *Charles Chandler*  
Attorney

No. 875,100.

PATENTED DEC. 31, 1907.

S. G. PETTERSON.

RAIL FASTENER.

APPLICATION FILED APR. 17, 1907.

2 SHEETS—SHEET 2.

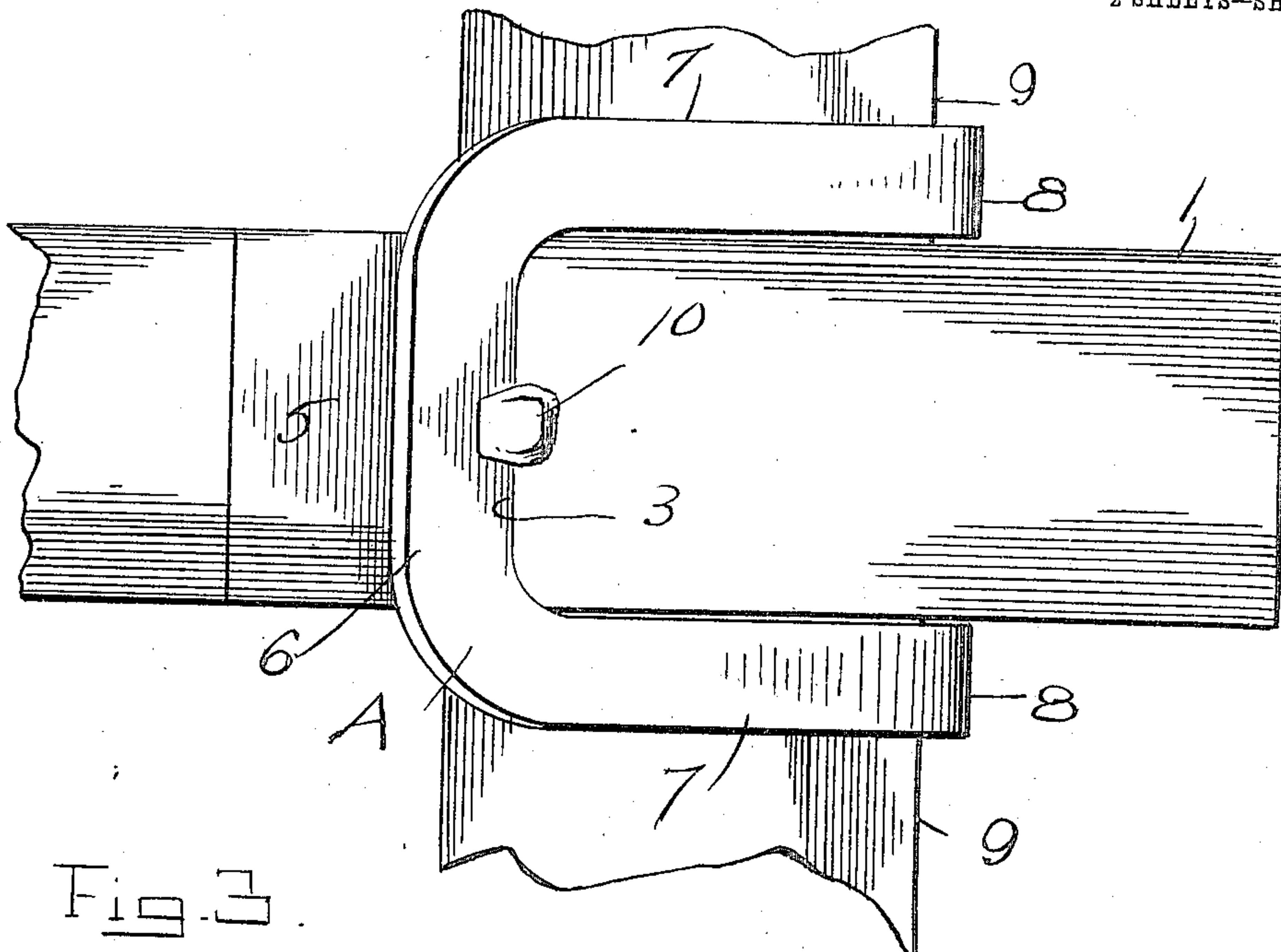


Fig. 3.

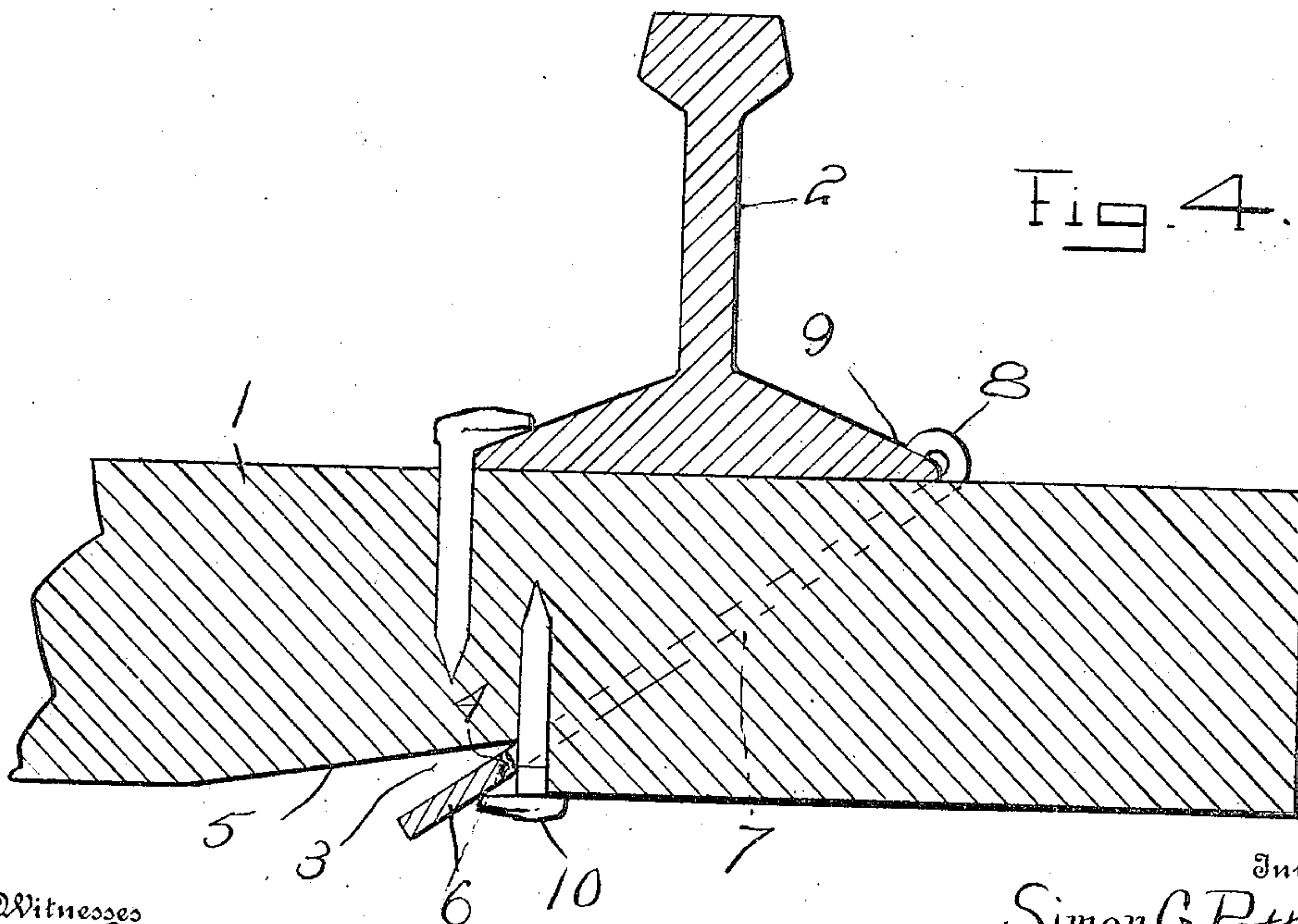


Fig. 4.

Witnesses  
J. C. Simpson  
N. H. McGee

Inventor  
Simon G. Petterson.

By

*Donald C. Crim*

Attorney



# UNITED STATES PATENT OFFICE.

SIMON G. PETTERSON, OF PINE BLUFF, ARKANSAS.

## RAIL-FASTENER.

No. 875,100.

Specification of Letters Patent.

Patented Dec. 31, 1907.

Application filed April 17, 1907. Serial No. 368,682.

*To all whom it may concern:*

Be it known that I, SIMON G. PETTERSON, a citizen of the United States, residing at Pine Bluff, in the county of Jefferson, State of Arkansas, have invented certain new and useful Improvements in Rail-Fasteners; 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 has relation to devices for preventing railway rails from spreading.

It is the object of my invention to provide improvements that may be connected with the ordinary wooden ties of railways and engaged with the base flanges of the rails to prevent the rails from spreading without modifying the form or in any way reorganizing the rails and without materially acting upon or deforming the tie.

The nature of the invention is fully and clearly ascertainable from the device portrayed in the annexed drawings, forming a part of this specification, in view of which it will first be described with respect to its construction and mode of operation and then be pointed out in the subjoined claims.

Of the said drawings—Figure 1 is a side elevation of a portion of a tie and rail showing my improvement applied. Fig. 2 is a plan. Fig. 3 is a bottom view. Fig. 4 is a vertical central longitudinal section in the plane 4 4, Fig. 2.

Similar numerals of reference designate similar parts or features, as the case may be, wherever they occur.

In the drawings, 1 designates a railway tie and 2 a rail laid thereon, the said rail being understood to be the one on the outside of a curve, or at any point where lateral strain is likely to be put thereon with a tendency to cause the rail to spread or move away from the opposite rail of the track.

The tie 1 may be composed of wood or any other suitable material, and has a notch 3 formed on its under side, said notch having a shoulder or abrupt vertical wall 4 on its outer side, and with the other side 5 inclined toward the vertical wall.

The form of the side 5 is not so important, however, so long as it is shaped to receive the yoke-part or bight 6 of a substantially U-shaped bracing device A, the arms 7 of which extend up alongside of the tie and are provided at their end portions with hook-like

terminals 8, which are adapted to engage the outer edges of the flanges 9 of the rails.

10 designates a spike that is driven into the tie at the edge of the vertical wall 4 of the tie, and between said wall and the outer edge of the yoke part 6 of the bracing device A, for the purpose of imparting stability and firmness to said wall.

The hooks or terminals 8 may be made as shown or of any other form that will insure their hold on the flange of the rail and so that the greater the lateral strain on the rail the greater will be their tendency to hold thereon and draw the rail down on the tie.

The inclined position of the arms of the yoke-brace from the bottom of the tie upward and outward contributes to the holding or bracing effects of the device.

Of course the usual spikes may be used in the tie on both sides and the bracing device may be applied to both rails of the track or only on the outside rail of the curve. It may also be used on all of the ties at a curve or on every other tie of a series, as desired.

The simplicity, inexpensiveness, and readiness of application to any kind of tie, as well as its efficiency in keeping the rails of a track from spreading are obvious and need not be expatiated upon.

Of course the form may be somewhat varied and the strength may be governed by the requirements of circumstances and conditions.

The brace is preferably made flat throughout with the inner edge of the yoke and the inner sides of the arms in engagement with the tie. The form gives considerable width to the hooks and an appreciably broad bearing of the same on the flange of the rail.

What is claimed is—

1. A brace for preventing the lateral displacement or spreading of railway rails, comprising a U-shaped yoke, the bight of which is adapted to engage a railway tie and the arms to extend along the sides of the latter, the terminals of said arms being formed into hooks to engage the edge of the base of the rail on the opposite side to that at which the bight of the brace is engaged with the tie.

2. A brace for preventing the lateral displacement or spreading of railway rails, comprising a U-shaped yoke, the bight of which is adapted to engage a notch formed in one of the faces of the tie and the arms to extend along the sides of the said tie, the terminals

of the arms being formed into hooks to engage the edge of the base of the rail on the opposite side to that at which the bight of the base is engaged with the tie.

5 3. The combination, with a tie having a notch on its under side with an abrupt shoulder or wall on its outer side and a bolt in the tie in line with the said wall, of a U-shaped rail-brace having its yoke portion engaged  
10 with said notch, its arms extending upwardly

along the sides of the tie and provided with hook-shaped ends to engage the edges of the base-flange of the rail.

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

SIMON G. PETTERSON.

Witnesses:

ARTHUR W. MILLS,  
HENRY ROBERTS.