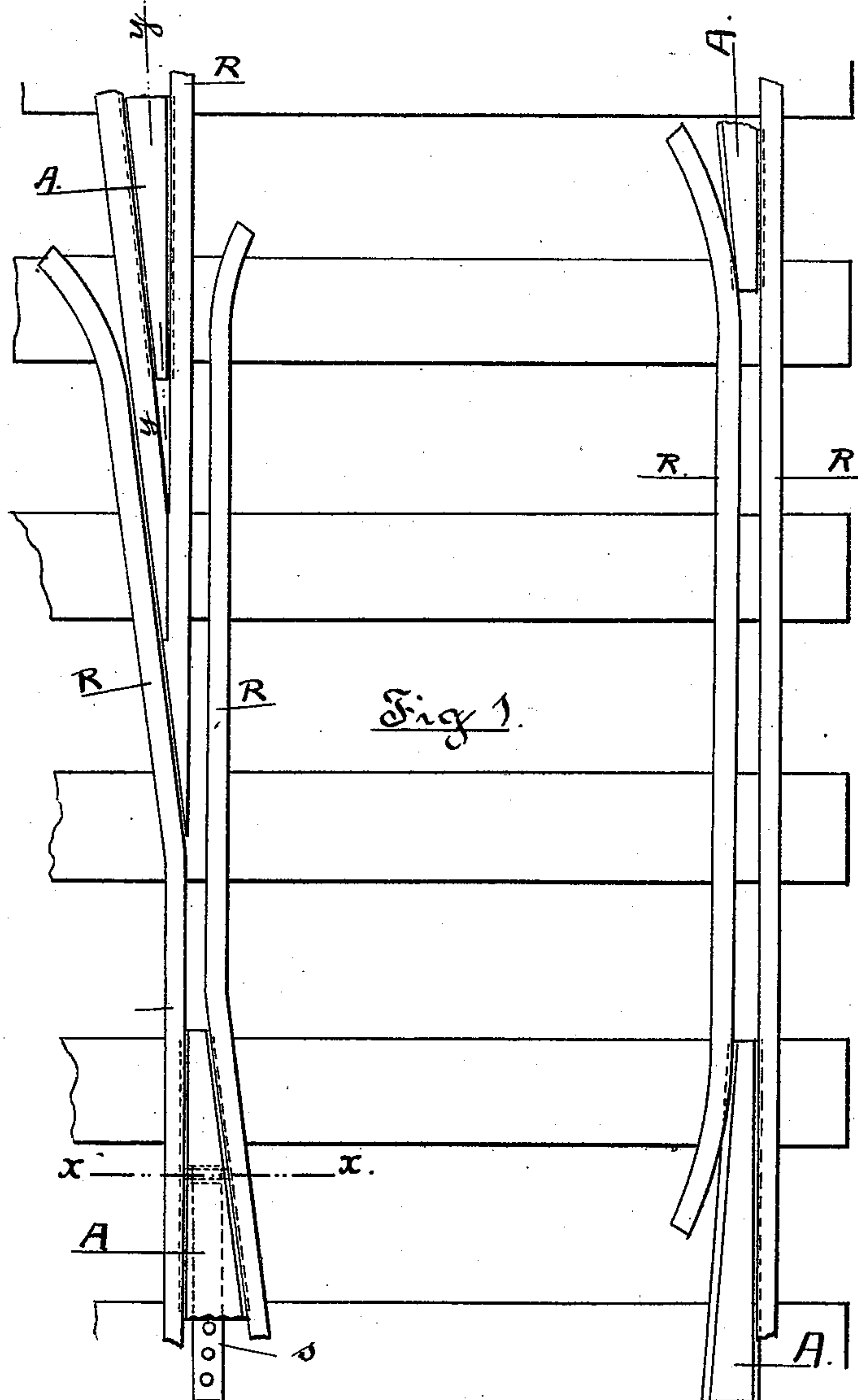


(No Model.)

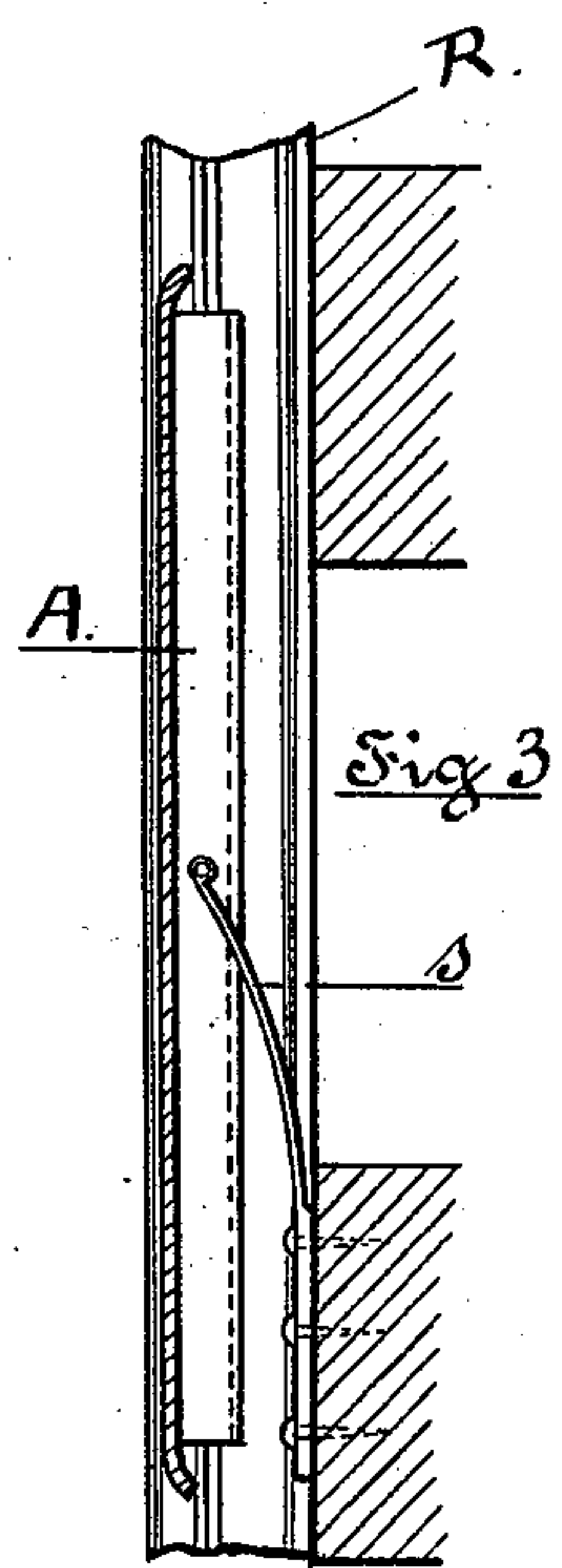
W. S. LODWICK, W. H. PATTON & J. F. BANNON.  
RAILROAD FOOT GUARD.

No. 532,976.

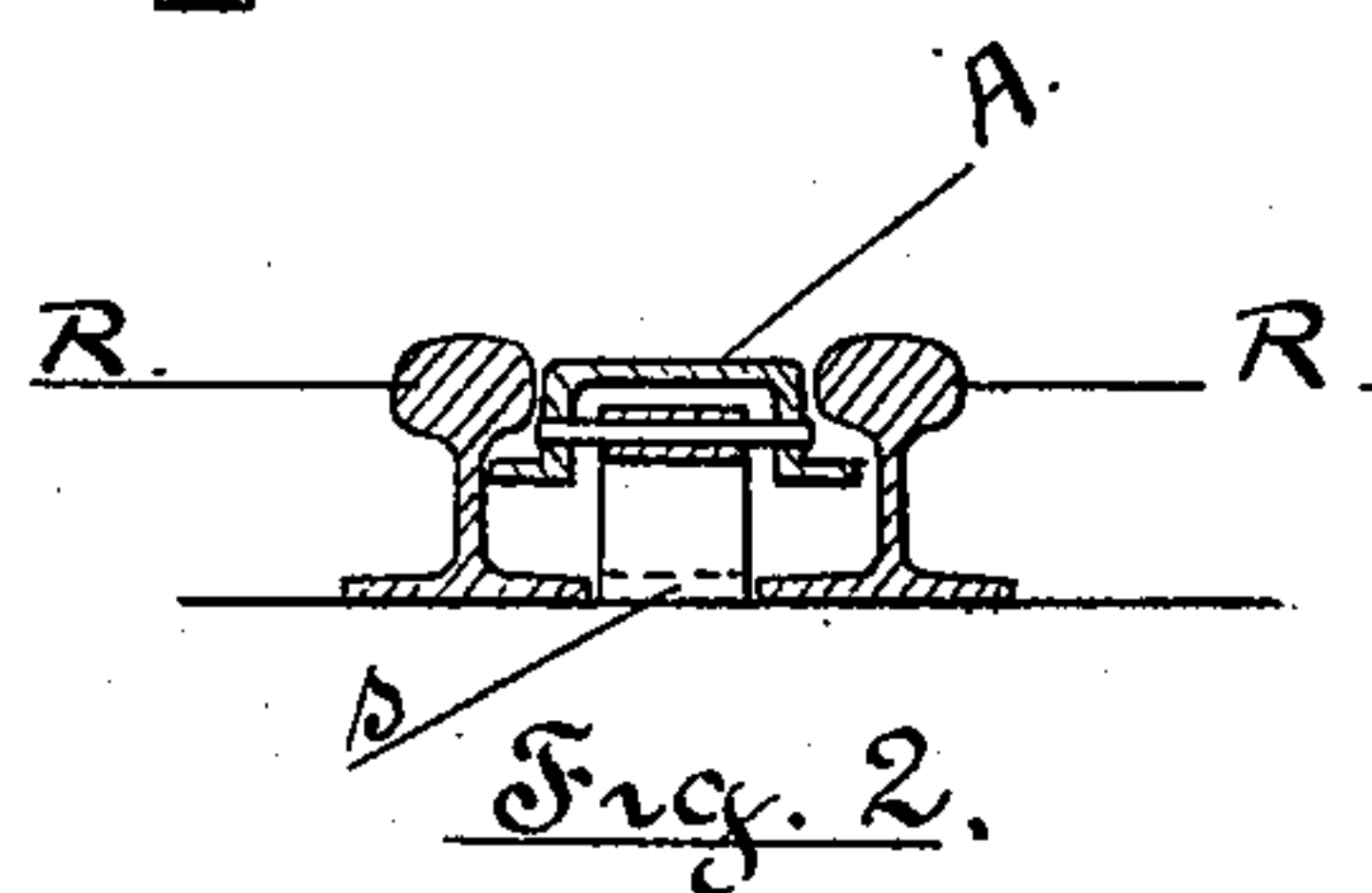
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*Fig. 1.*



*Fig. 3.*



*Fig. 2.*

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# UNITED STATES PATENT OFFICE.

WALLACE S. LODWICK, WILLIAM H. PATTON, AND JOHN F. BANNON, OF  
YOUNGSTOWN, OHIO.

## RAILROAD FOOT-GUARD.

SPECIFICATION forming part of Letters Patent No. 532,976, dated January 22, 1895.

Application filed June 6, 1894. Serial No. 513,648. (No model.)

*To all whom it may concern:*

Be it known that we, WALLACE S. LODWICK, WILLIAM H. PATTON, and JOHN F. BANNON, citizens of the United States, residing at Youngstown, in the county of Mahoning and State of Ohio, have invented certain new and useful Improvements in Railroad Blocking-Frogs; and we do hereby declare the following to be a full, clear, and exact description of our invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form part of this specification.

It is a well known source of danger in the operation of steam railroads that in frogs, between track rails and guard rails, and, between wing rails and converging fixed rails, there necessarily exist spaces of such breadth that, in places, the feet of trainmen and others walking upon the track are liable to be caught and held therein, resulting in serious and oftentimes fatal accidents.

The object of our invention is to wholly do away with this danger, which we do by the spring foot guard hereinafter described, and illustrated in the drawings, in which—

Figure 1 is a top view of a section of railroad track at a switch having our foot guards, one being cut off to show the tie and the springs in place. Fig. 2 is a cross section view of the wing rails R R and the foot guard A in position on the line  $x x$  of Fig. 1; and Fig. 3 is a longitudinal vertical section of the foot guard A in the same position on the line  $y y$  of Fig. 1.

Similar letters refer to similar parts in each view.

The spring foot guard A is made of steel boiler plate of suitable thickness, and is of length sufficient to span the distance between two neighboring ties covering them. It is rectangular in form, its side lines converging from a suitably broad to a suitably narrow end so that it fills the space between the rails that is sufficiently open to present the danger mentioned. The longitudinal edges are turned downward and then outward on lines curved so as to fit against the vertical and under sides of the rail heads, as seen at Fig. 2, the extreme horizontal edges being, when the foot guard is in position, somewhat lower than the under sides of the rail heads in order that the foot guard may slightly tilt when the

flange of the car wheel strikes it, and also when it quits it. The ends of the foot guard are drooped to take off, as much as possible, the forward push of the flange of the car wheel when striking and quitting the foot guard. When in place it is held so as to block between the rails with its upper surface nearly or quite on a level with the tops of the rails by means of the flat springs whereby it is depressible by the car wheel, and returns upward to place when relieved of pressure. The flat spring  $s$  is at one end spiked securely to the tie while at the other end it is attached to the inner surface of the foot guard by means of a bolt passing between and through the vertical walls of the foot guard, the central portion of which bolt passes movably through an eye in the end of the flat spring  $s$  forming a pivot. The point of such attachment between the foot guard and the spring  $s$  is, preferably, at the length and breadth center of the foot guard A. It will be seen that by means of this manner of attachment the foot guard will slightly tilt as the car wheel flange strikes upon and leaves it.

The mechanism of our spring foot guard, and its method of operation will, now be understood, and its value in accomplishing the object stated in the beginning of this specification will be appreciated.

What we claim is—

The railroad spring foot guard A, consisting of a rectangular piece of steel boiler plate, narrower at one end than at the other, which ends are drooped, the side edges being bent downward and again outward, and supported in blocking position between the rails by the flat metal springs attached thereto centrally by means of a bolt or pin passing between and through the vertical sides of the foot guard A and through an eye in one end of the spring, the other end of the spring being spiked to a tie, substantially as described and for the purpose expressed.

In testimony whereof we hereunto affix our signatures in the presence of two witnesses.

WALLACE S. LODWICK.  
WILLIAM H. PATTON.  
JOHN F. BANNON.

Witnesses:

SMITH P. SEBBET,  
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