

W. C. PROSSER.  
 FOOT GUARD FOR RAIL FROGS.  
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960,397.

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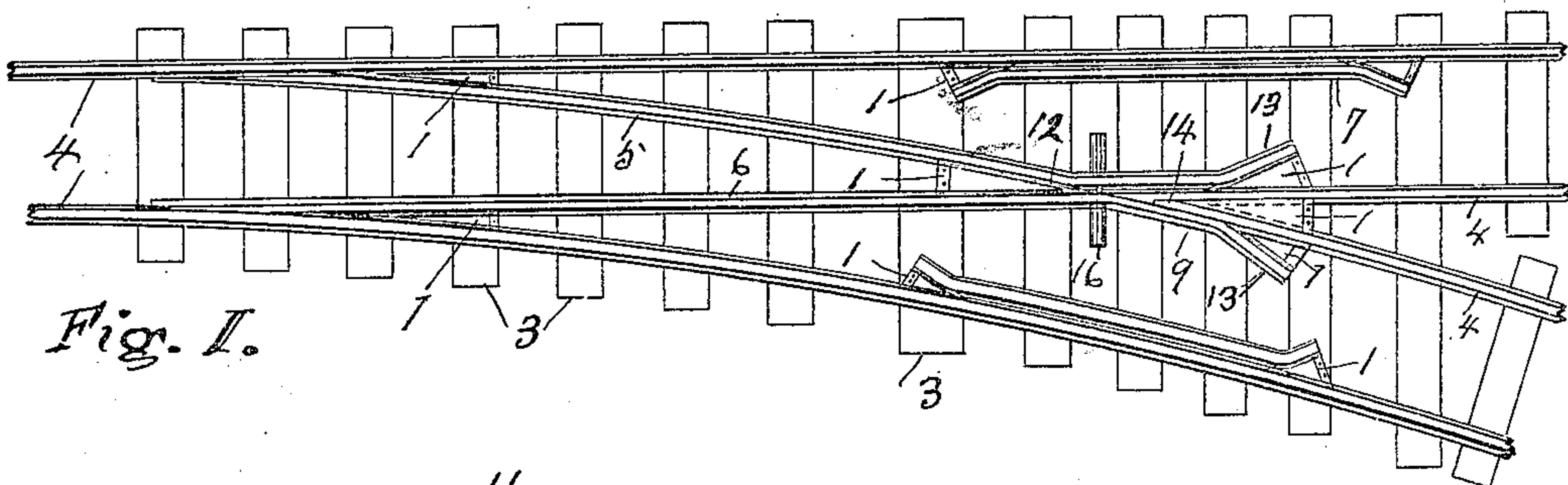


Fig. 1.

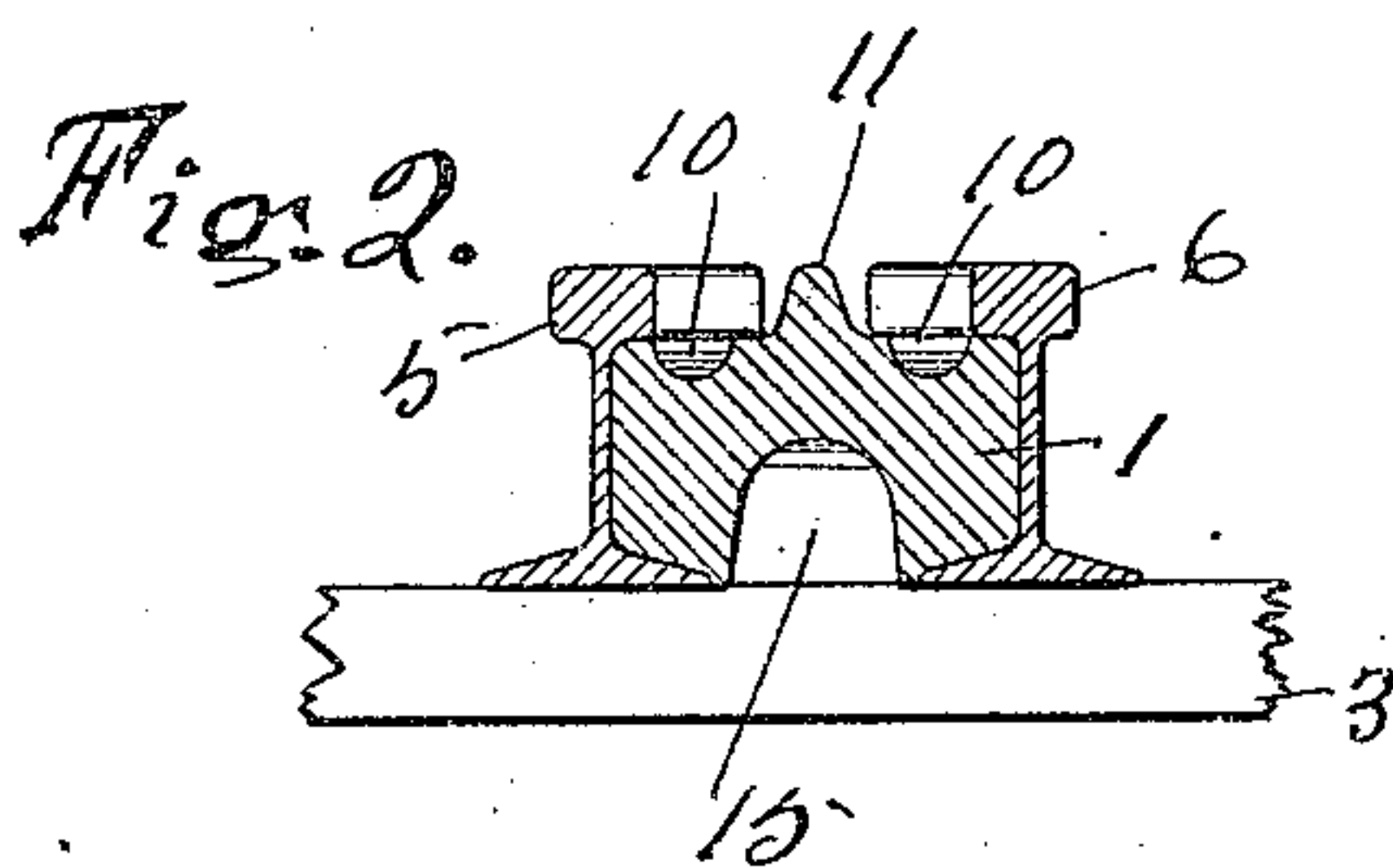


Fig. 2.

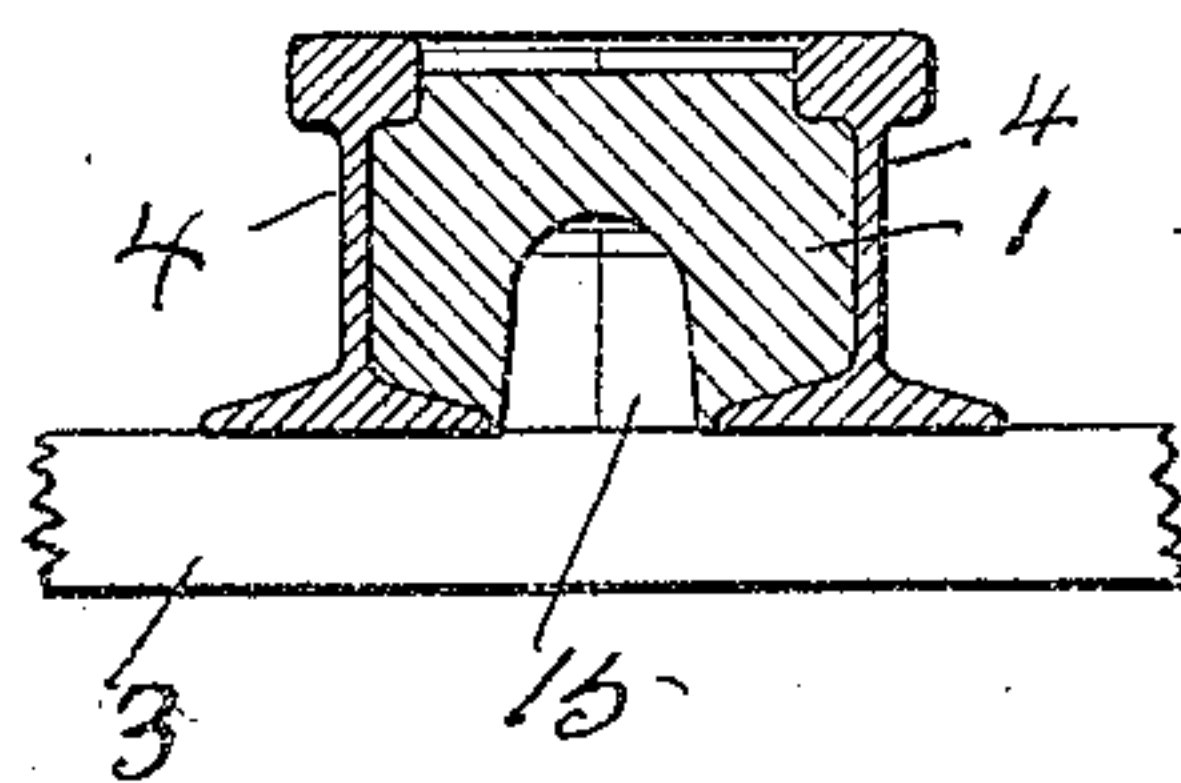


Fig. 3.

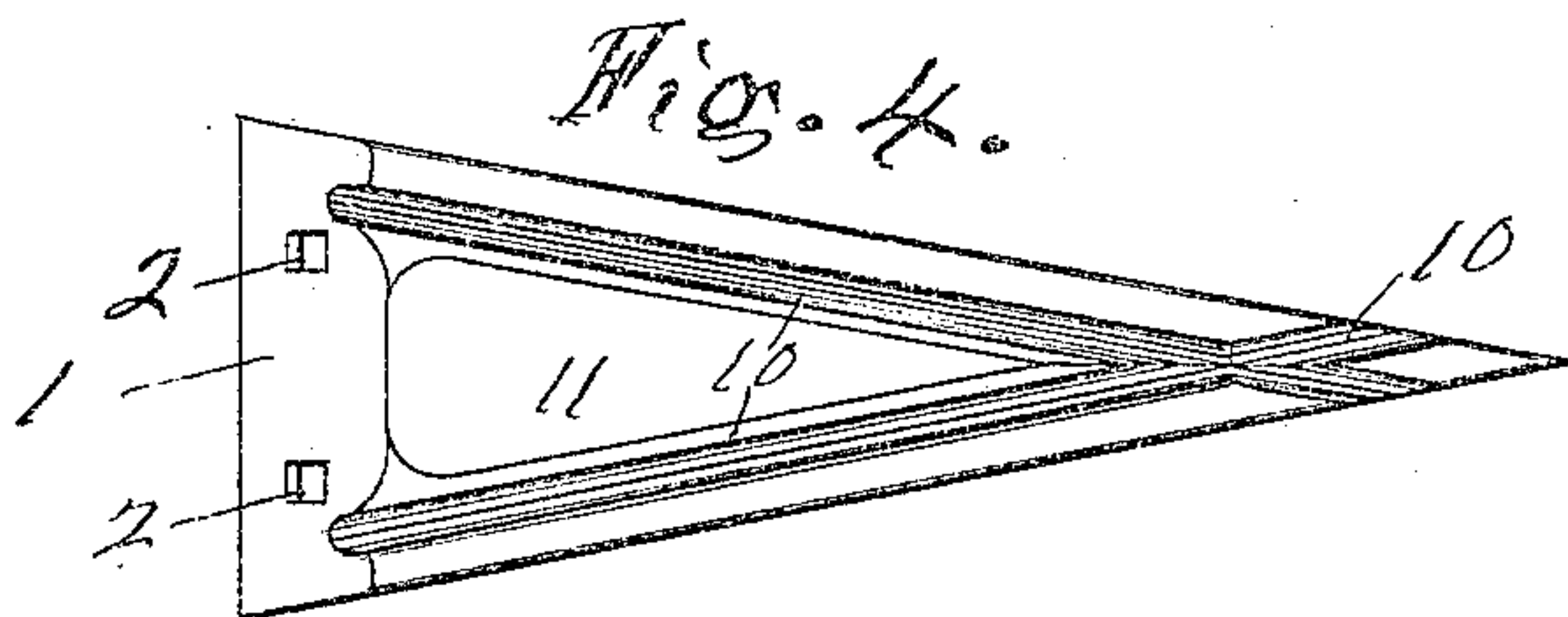


Fig. 4.

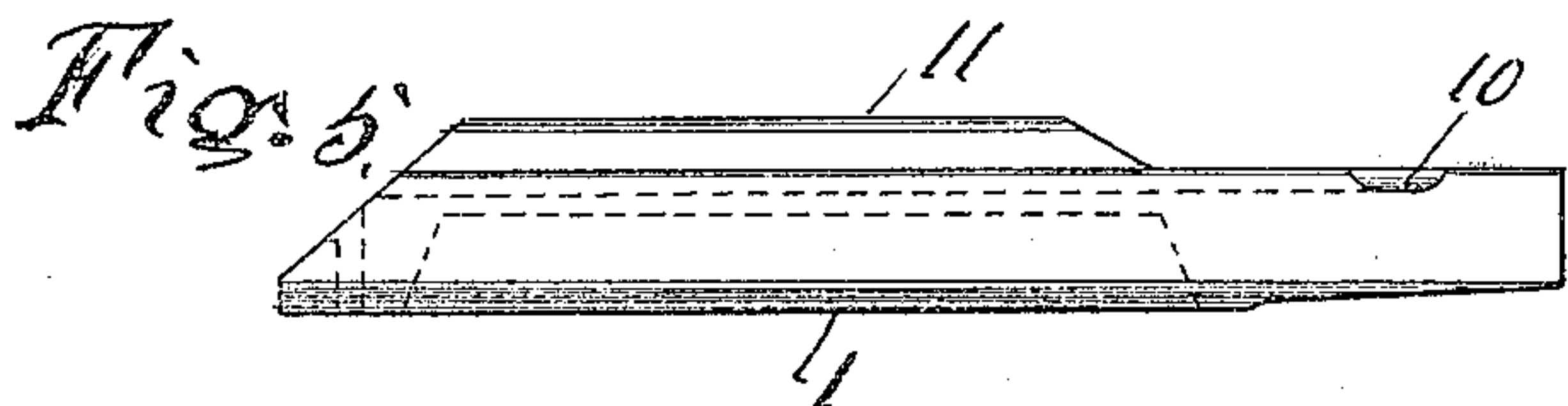


Fig. 5.

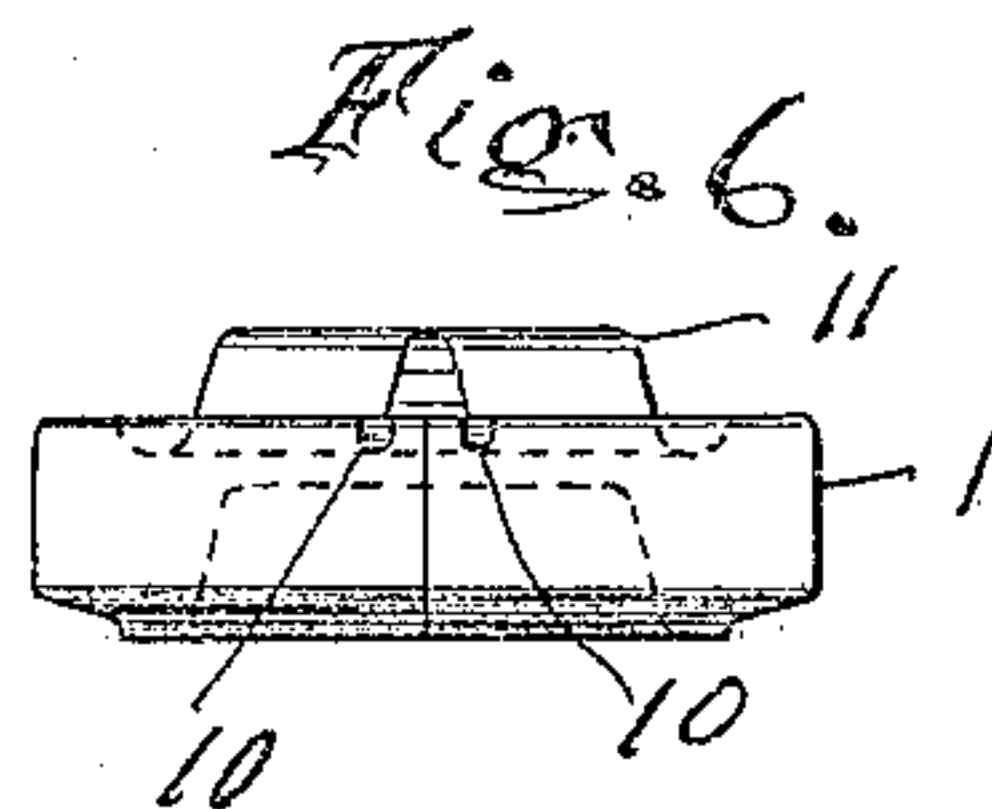


Fig. 6.

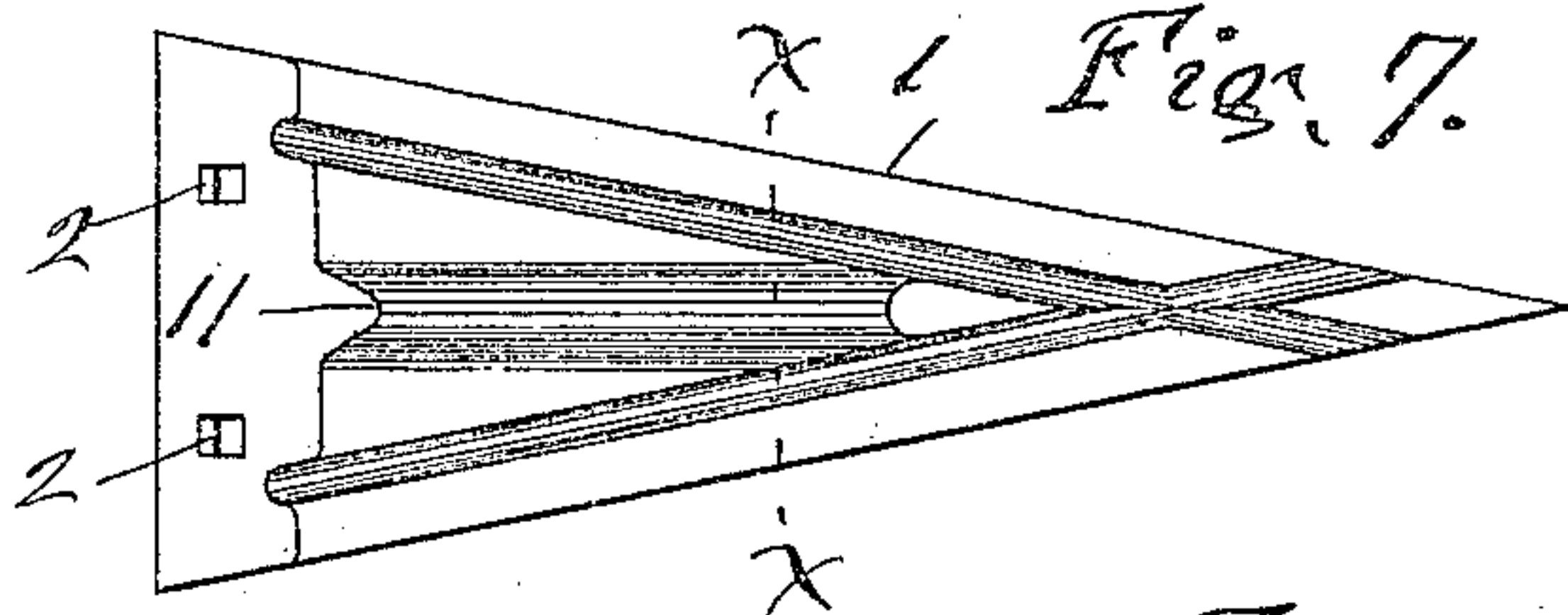


Fig. 7.

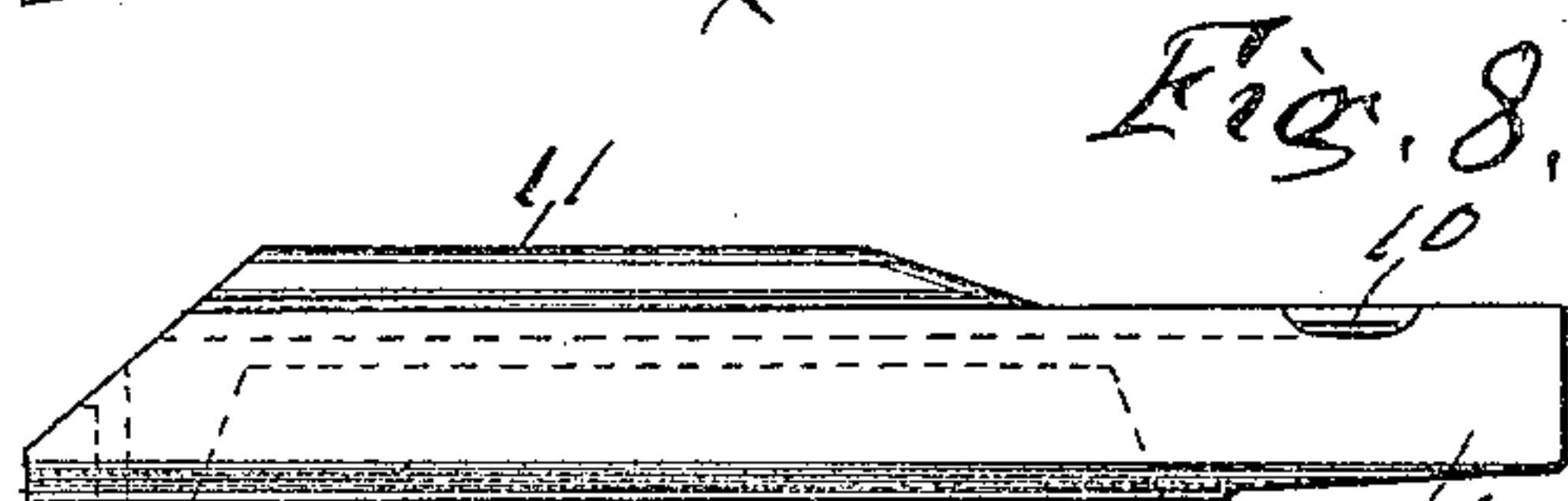


Fig. 8.

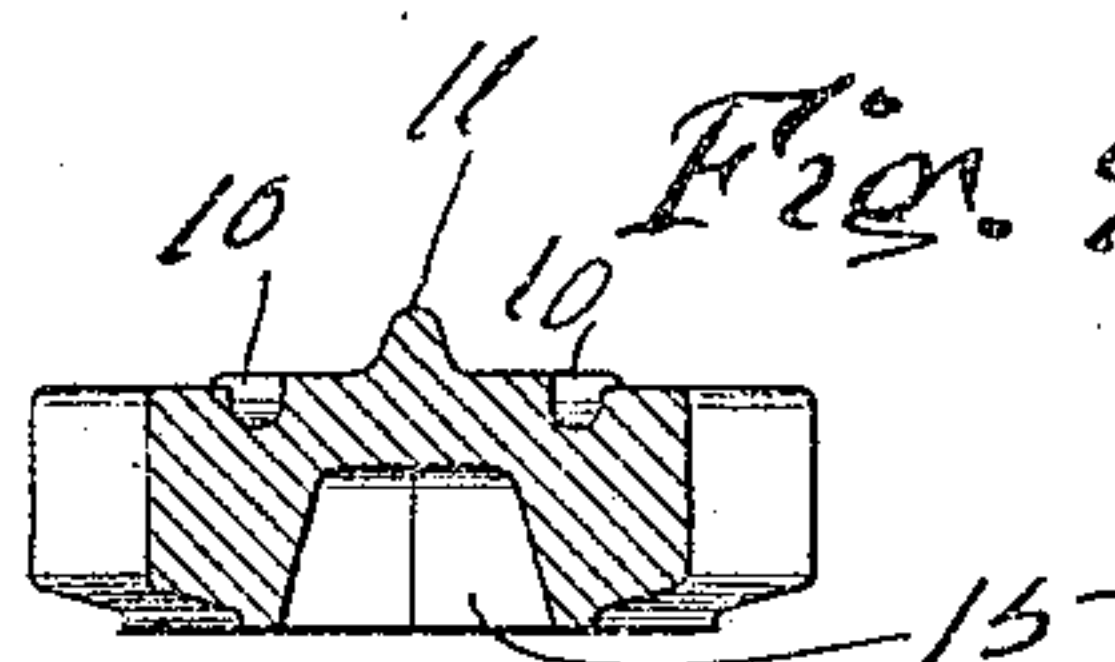


Fig. 9.

WITNESSES:

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# UNITED STATES PATENT OFFICE.

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## FOOT-GUARD FOR RAIL-FROGS.

960,397.

Specification of Letters Patent.

Patented June 7, 1910.

Application filed April 16, 1909. Serial No. 490,377.

*To all whom it may concern:*

Be it known that I, WILLIAM C. PROSSER, a citizen of the United States, residing at Ashley, in the county of De Kalb, in the State of Indiana, have invented certain new and useful Improvements in Foot-Guards for Rail-Frogs; and I do hereby declare that the following is a full, clear, and exact description of the invention, which 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.

My invention relates to improvements in foot guards for rail frogs.

It is well known that employees, pedestrians and others, as well as horses, frequently get their feet caught in the switch frogs of both street and steam railways, and also between the diverging ends of guard-rails and the adjacent railway rails, whereby serious injury and even loss of life sometimes results.

The object, therefore, of my present invention is to provide an improved foot-guard for frogs, switches and guard rails adapted to prevent a foot of either man or beast from being caught therein.

My invention consists of a triangular block adapted to snugly fit those portions of the switch, frogs and guard-rails where the rails diverge, and having their upper faces longitudinally recessed to receive the wheel flanges.

The principal novel feature of my invention resides in the generic idea of providing a foot guard which eliminates the danger of getting the foot accidentally caught in switches or frogs of railways.

Another novel feature is the construction of the same whereby it is snugly embraced and supported by the railway rails, and has its upper face recessed for the wheel flanges.

Similar reference numerals indicate like parts throughout the several views in which—

Figure 1 is a plan view of the railway rails forming a switch and a frog with the usual guard rails, and showing my invention in position therein. Fig. 2 is a cross-section of diverging railway rails as found either at the ends of a guard-rail, and in a frog throat, with my invention in position and shown in cross-section, showing the raised center thereof and the converging recess for the wheel flanges. Fig. 3 is a similar

cross-section showing a modified form of my invention for use in a frog-point only, where no recesses for the wheel flanges are required. Fig. 4 is a detail plan of my invention showing the relative arrangement of the raised center and the converging recesses. Fig. 5 is a side elevation of Fig. 4. Fig. 6 is an end view of Figs. 4 and 5 looking from the right. Fig. 7 is a plan view of a slightly modified form of my invention, and Fig. 8 is a side elevation of the same. Fig. 9 is a cross-section of Fig. 7 taken on the line  $x-x$  and showing cored out under-cut portion.

My invention of proper dimensions and material, preferably of suitable metal, is triangular in contour and is formed of a single block or plate 1 having a plurality of vertical openings 2 in its widest end for the reception of bolts or spikes or other means, for rigidly securing the same in position upon the cross-ties 3, as shown in Fig. 1, in which 4 represents the main track rails, 5 and 6 the switch rails, 7 and 8 represent the guard rails, and 9 represents the frog point.

The foot-guard 1 has its opposite converging sides fashioned to fit snugly against the web of the rail, and between the base and ball of the rail as shown in Figs. 2 and 3, and has its upper face provided with the longitudinal recesses 10, Figs. 2, 4, 6, 7 and 9, in parallel arrangement with the adjacent sides of the foot-guard, of proper dimensions to receive the wheel flange in use without frictional contact therewith.

Substantially midway of the converging sides of the foot-guard is arranged a longitudinal ridge 11, Figs. 2, 7, 8 and 9 whose upper face in use is substantially flush with the tread of the rails between which it is used, thereby effectually preventing the entrance of a foot, even of a child between the rails in such a manner as to holdingly engage the same.

It is evident that the foot-guard 1 is adapted to snugly fit between the movable ends of the switch rails 5 and 6 and their adjacent respective track rails, Fig. 1, as well as between the opposite ends of the guard-rails 7 and 8 and their respective coacting track-rails, and also to be similarly employed in the frog throat 12, and between the ends of the frog-guards 13 and the respective adjacent track rails.

Obviously where my invention is employed at the ends of guard rails or other



situations in which the wheel flange engages but one side of the same, only one recess 10 is required.

Where my invention is employed between the diverging track rails at a frog-point, as shown at 14 in Fig. 1, that modified form of my invention shown in Fig. 3 may be employed in which the facial recesses 10 and the central flange 11 are omitted, and the upper face of the guard-block 1 is nearly, but not quite flush with the tread of the rails.

The body of the block 1 is preferably materially lightened and cheapened by providing it with a centrally arranged longitudinal cored out or under-cut portion 15 of suitable dimensions. The flange 11 may be, if desired, materially widened as shown in Fig. 4. In Fig. 1, the spring casing 16 of well understood construction is shown in its usual relation to the frog.

It is thus obvious that when my invention is placed in position it will completely eliminate all danger of accidentally getting the foot fast at the meeting points of switch frogs, switch-rails or guard-rails, and that my invention can be cheaply constructed, and readily placed in position by unskilled labor, and that it is equally applicable to either steam or electric railways.

Having thus described my invention and

the manner of employing the same what I desire to secure by Letters Patent is:

1. A foot-guard for railway frogs consisting of a triangular block whose sides abut the adjacent sides of two converging rails, and whose upper face is provided with a central upright flange flush with the upper faces of the rails, and has opposite facial recesses and whose lower face is provided with an under cut longitudinal recess.

2. A foot-guard for switch frogs, consisting of a pointed block whose converging opposite sides are embraced by the respective webs of two diverging railway rails, and whose upper face projects flush with the upper faces of the balls of the rails.

3. A triangular foot-guard block for converging railway rails having its upper face provided with one or more longitudinal grooves and an intermediate upright flange, the said block having an under recess in its lower face, being adapted to close the space between the meeting portions of the rails.

Signed by me at Ashley, county of De Kalb, State of Indiana, this 9<sup>th</sup> day of April, 1909.

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Witnesses:

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