

(No Model.)

E. P. EDWARDS.

FOOT GUARD FOR RAILWAY SWITCHES, &c.

No. 367,609.

Patented Aug. 2, 1887.

Fig. 1

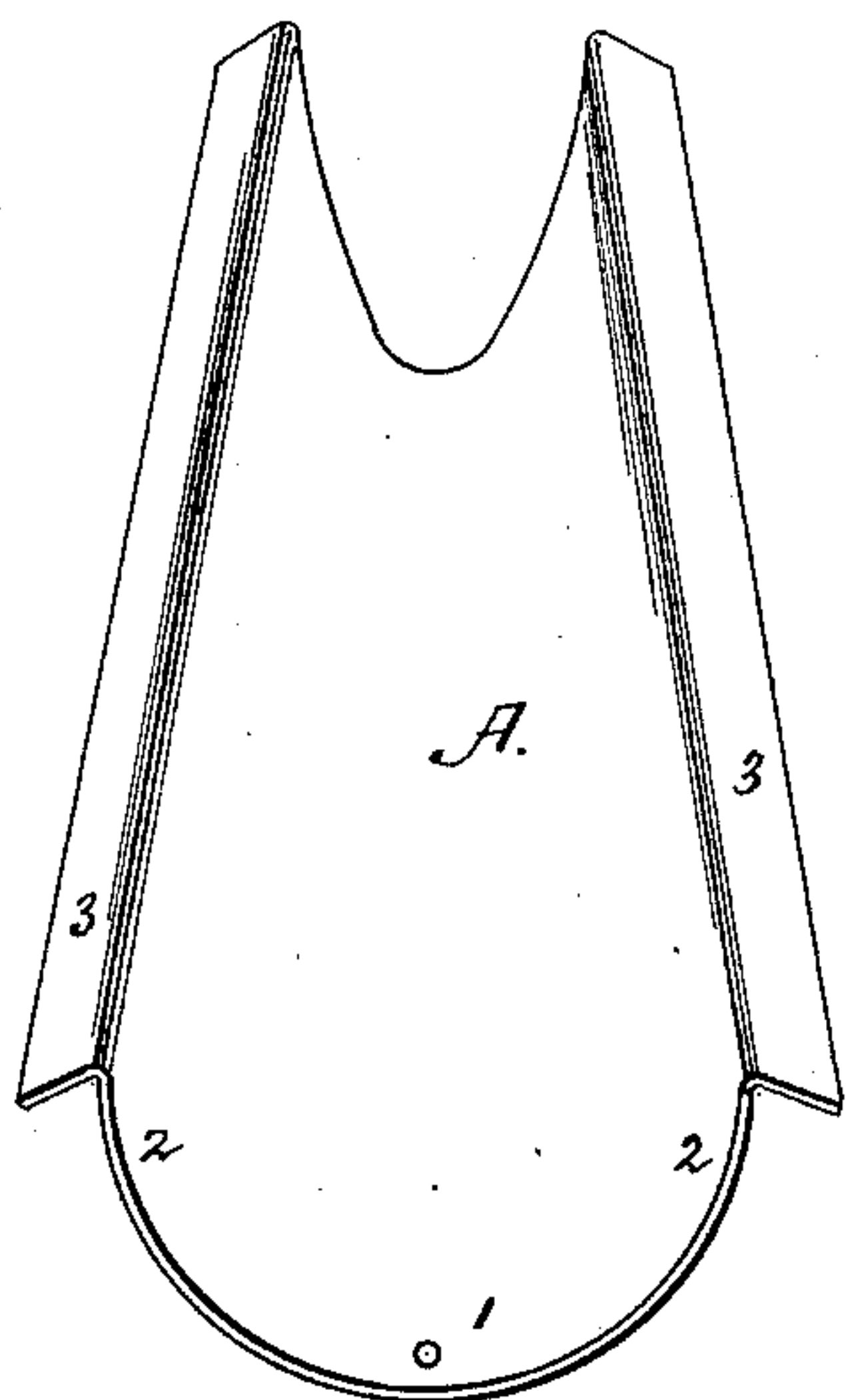


Fig. 2

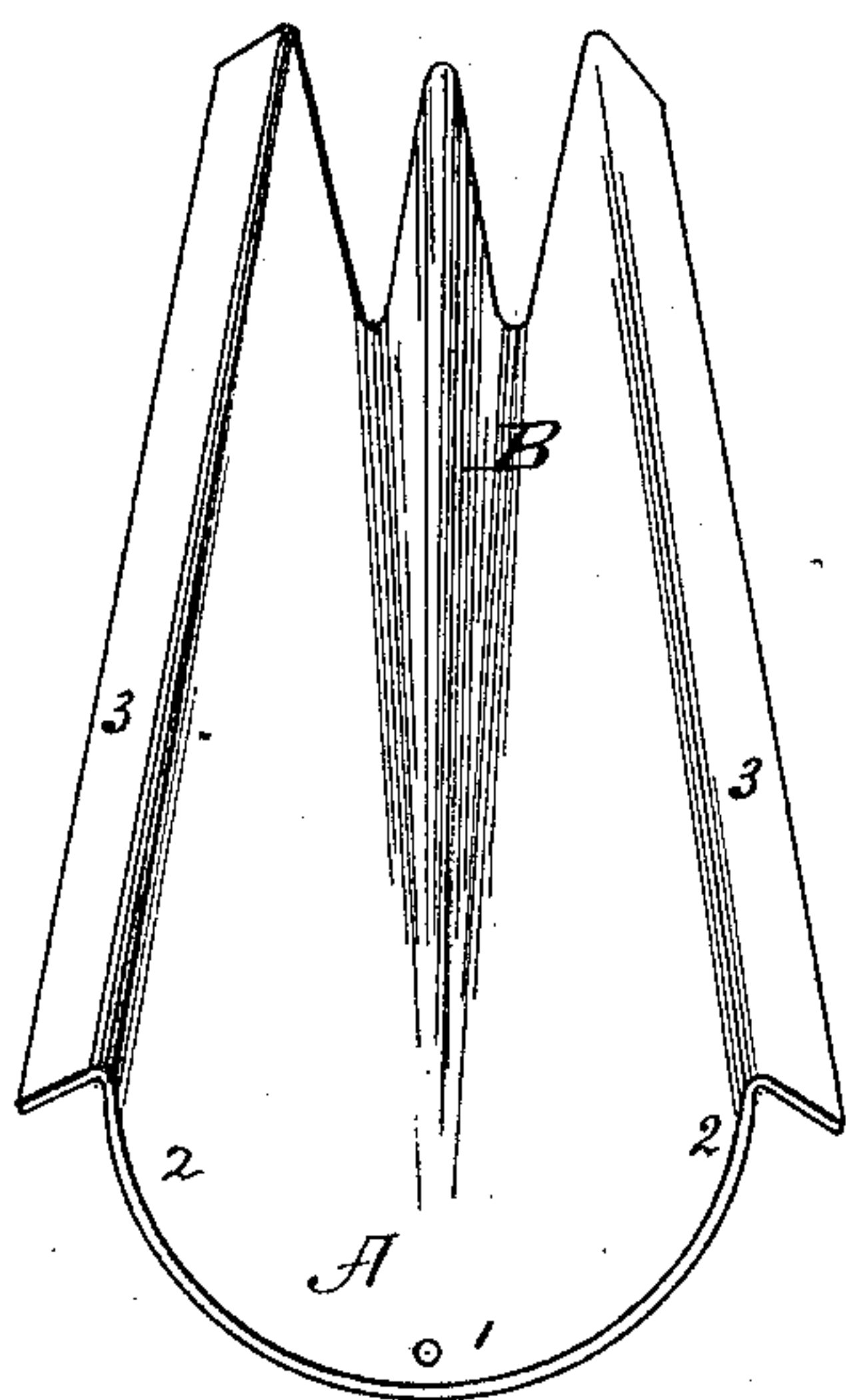


Fig. 3

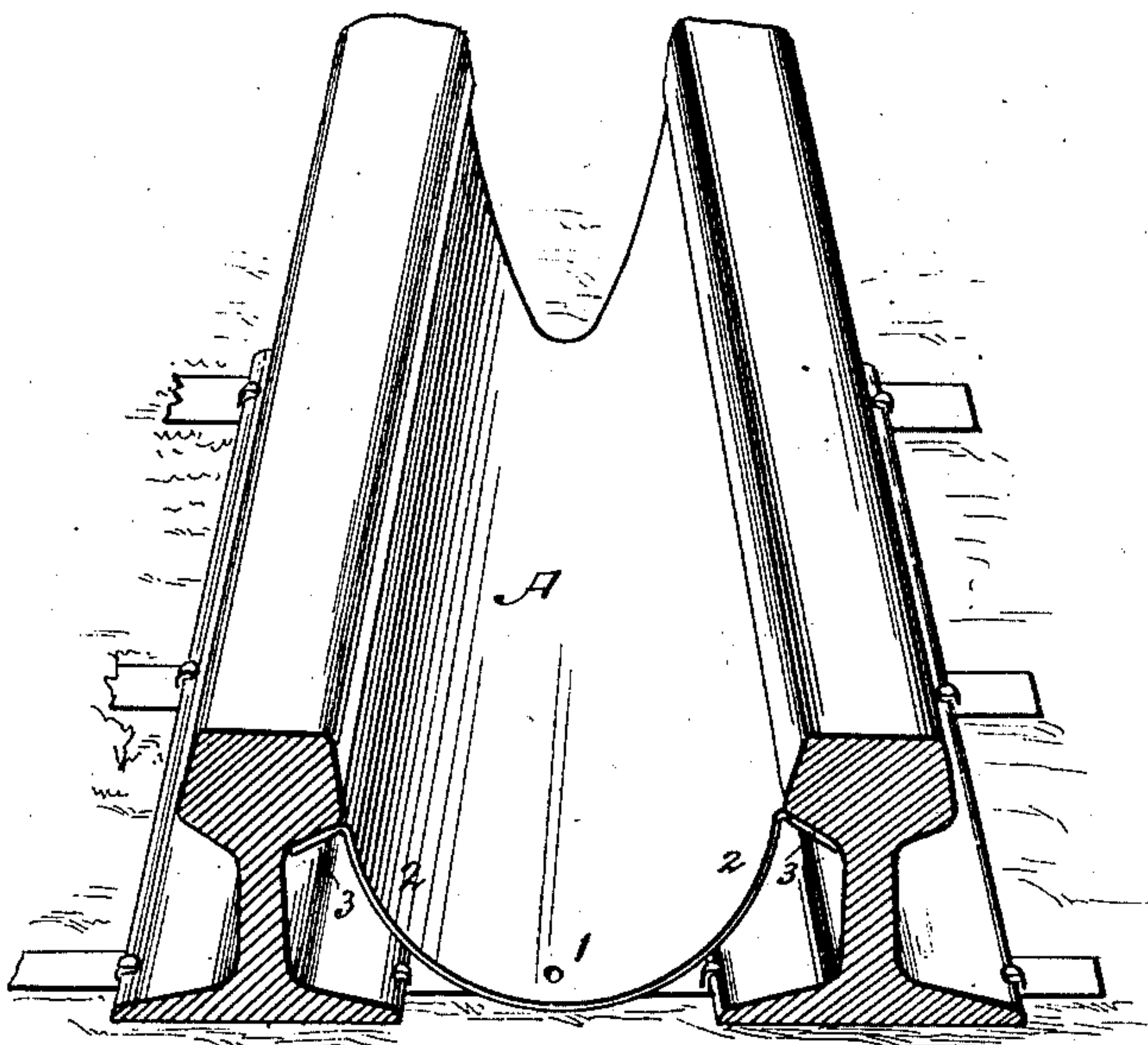
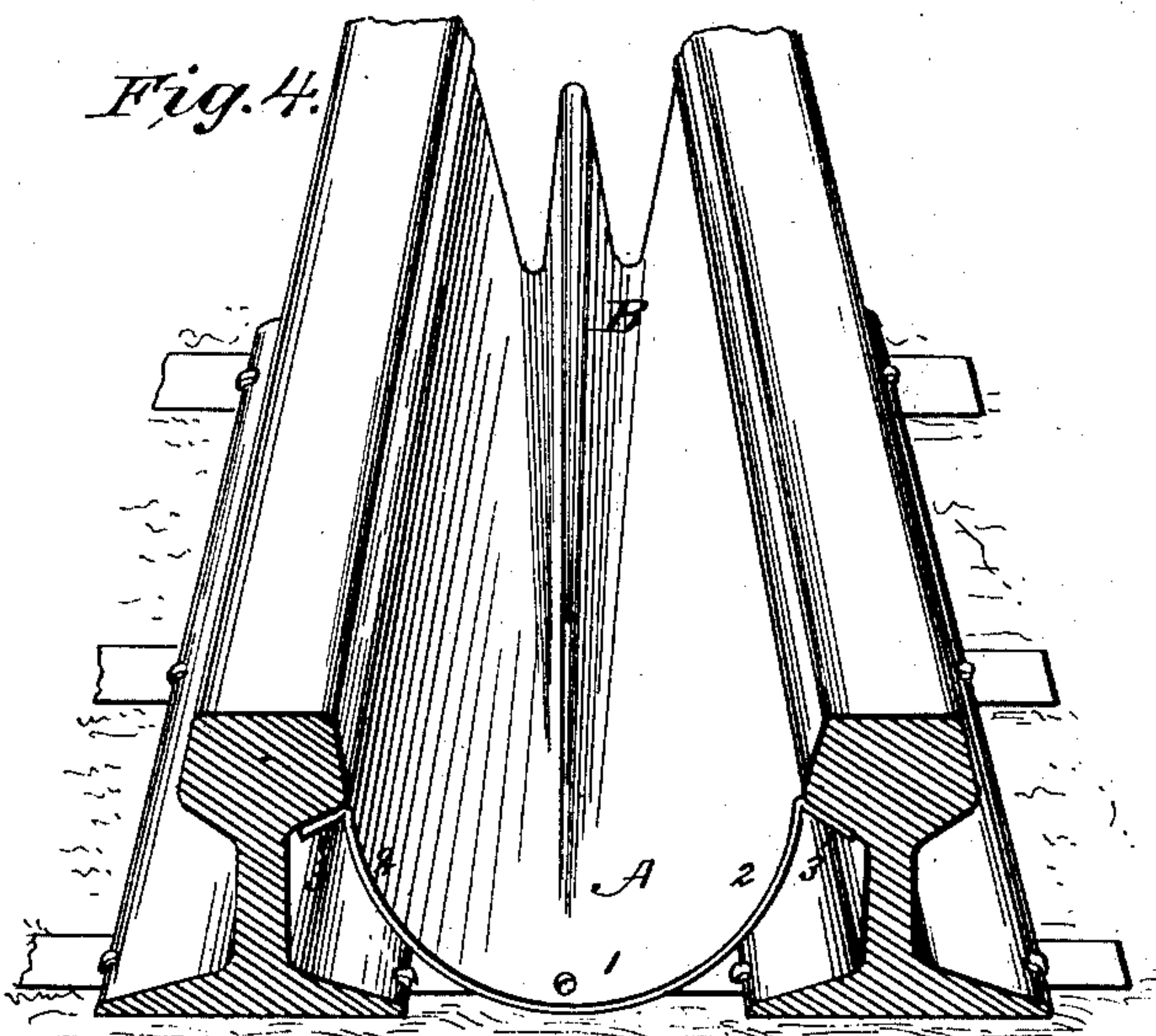


Fig. 4



WITNESSES:

Fred G. Deterich
P. B. Turpin.

INVENTOR:

E. P. Edwards
BY *Munn & Co.*
ATTORNEYS.

UNITED STATES PATENT OFFICE.

EDWARD P. EDWARDS, OF WEBSTER CITY, IOWA.

FOOT - GUARD FOR RAILWAY - SWITCHES, &c.

SPECIFICATION forming part of Letters Patent No. 367,609, dated August 2, 1887.

Application filed October 26, 1886. Serial No. 217,238. (No model.)

To all whom it may concern:

Be it known that I, EDWARD P. EDWARDS, of Webster City, in the county of Hamilton and State of Iowa, have invented a new and useful Foot-Guard, to be used in blocking or in the place of blocking of frogs, switch-rails, guard-rails, or any other combination or angle of rails in railroad-switches or crossings of railroad-tracks, so as to prevent the foot of a person stepping between the rails of a frog, switch-rails, or the rail and guard-rail, or other angles, being caught under the ball of the rail or otherwise, which is fully set forth and described in the following specification, reference being had to the accompanying drawings, in which—

Figures 1 and 2 are detail views of my improved guard, differing slightly in construction; and Figs. 3 and 4 are views of such guards as when in use.

The object of my invention is to fill the space along the concave of the inner side of the rail, switch-rails, frogs, guard-rails, or other angles of track even with the ball of the rail, so as to make it impossible for a person stepping between the rails or the rail and guard from getting the foot fast, or from having any elevation at the wide end of the angle between the rails or rail and guard-rail against which the toe may be struck and the person thereby thrown, at the same time being so arranged as not to interfere with or come in contact with the flange on the car-wheel, and have the space between the rails, so that snow, ice, and sleet will not interfere with the proper working of the device. It is intended to take the place of frog-blocks now in use, and avoid the dangers in their use of striking the foot against the end of the frog-block, or from the accumulation of snow, ice, and sleet.

The foot-guard A may be made of sheet-iron, steel, or any other metal of sufficient strength, or of paper or other composition, and may be made to fit any angle needed in the frog, switch-rails, guard-rails, or other angles, and of a height to fit any rail used in building railroads. It has a bottom portion, 1, side wings, 2, and lateral flanges 3, and is put in place by shoving it into the open space between the rails of the frogs, switch-rails, or rail and guard-rail from the wide end of the angle with the longitudinal flanges so turned

as to fit closely under the ball of the rail, the outer edge of the flange extending to the concave of the rail and the inner edge projecting even with the ball of the rail, the sides 2 extending downward and inward at 1 in nearly a semicircular form, the bottom resting upon the ties and spiked or nailed to one or more of them. Its length must be governed by the angle of the frog, switch-rail, or guard-rail. It must extend far enough into the narrow end of the angle to prevent the insertion of a foot in front of it, and far enough back to prevent the sole of the largest boot being caught under the ball of the rail.

The general shape of the foot-guard, as seen when the flanges 3 on either are under the ball of the rail, is nearly a semicircle with the convex side downward, the angles being sharper at the narrow end and widening toward the other end, according to the angle of the rails.

In the construction shown in Figs. 2 and 4 there is a corrugation, B, rising in the center at the narrow end of the guard nearly as high as the sides, giving the end the form of the letter W, and this corrugation B slopes gradually toward the wider end of the foot-guard, when it entirely ceases or merges in the base of the guard having a flat rounded surface. This center corrugation should be of such height and the space between it and the sides such that it will not come in contact with the flange on the car-wheel.

In the construction shown in Fig. 3 the foot-guard is nearly semicircular in shape, with the longitudinal sides or flanges bent out at an angle to fit tightly under the ball of the rail.

The construction shown in Figs. 2 and 4 is like that shown in Figs. 1 and 3, except that in the narrow end the center is doubled up, so as to form the corrugation, which slopes gradually toward the wider end, where it entirely ceases. This form is particularly intended for use where the rails are close, to prevent the foot from going down between the rails.

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

1. A foot-guard consisting of a plate formed with a base, 1, fixed approximately at the surface-level of the ties, sides 2, and lateral flanges 3, substantially as set forth.

2. A foot-guard having a corrugation, as B, which decreases in height from end to end, substantially as set forth.

3. The improved foot-guard herein described, consisting of the plate formed with base 1, sides 2, and flanges 3, and having a central corrugation, B, decreasing in height from end to end and having its lower end merged into the base 1, substantially as set forth.

4. A foot-guard narrowed or tapered from end to end and provided with a rib, B, made highest at the narrow end of the guard, and

decreasing in height toward the opposite or wider end thereof, substantially as set forth.

5. The herein-described foot-guard, having base-plate 1, adapted to be fixed in use approximately at the surface-level of the ties, the sides 2, and flanges 3, extended laterally outward from the upper edges of the sides 2, substantially as set forth.

EDWARD P. EDWARDS.

Witnesses:

N. B. HYATT,

N. P. HYATT.