

(No Model.)

P. S. DUSENBURY.

RAILROAD FROG AND SWITCH GUARD.

No. 294,598.

Patented Mar. 4, 1884.

Fig 1

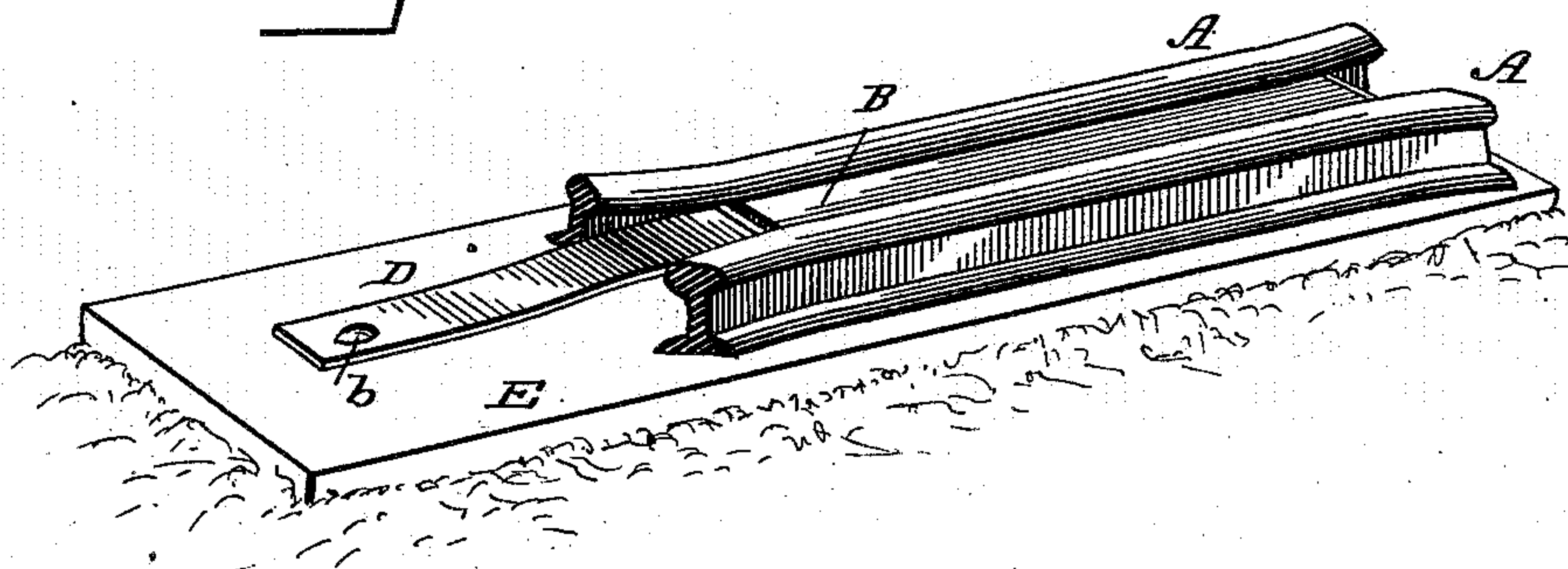


Fig 2

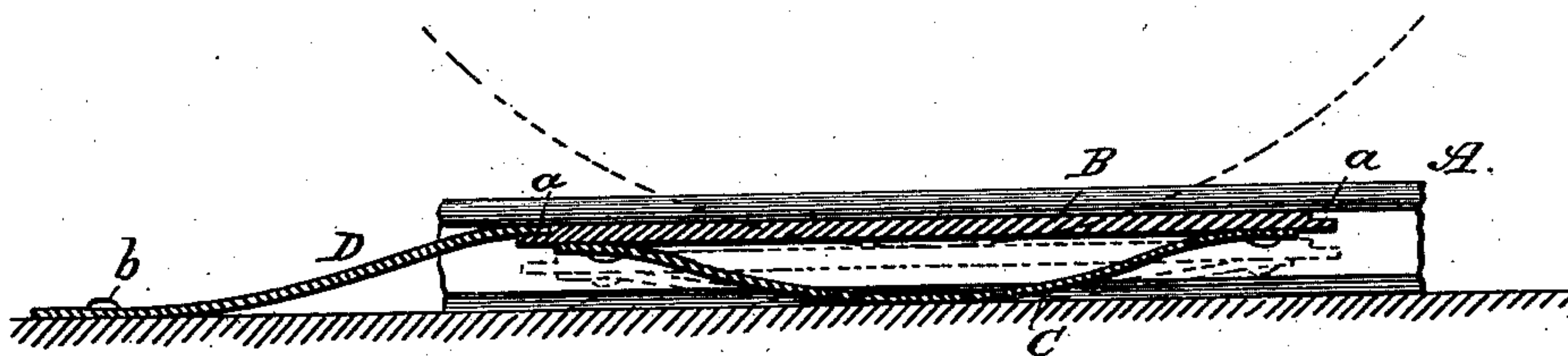


Fig 4

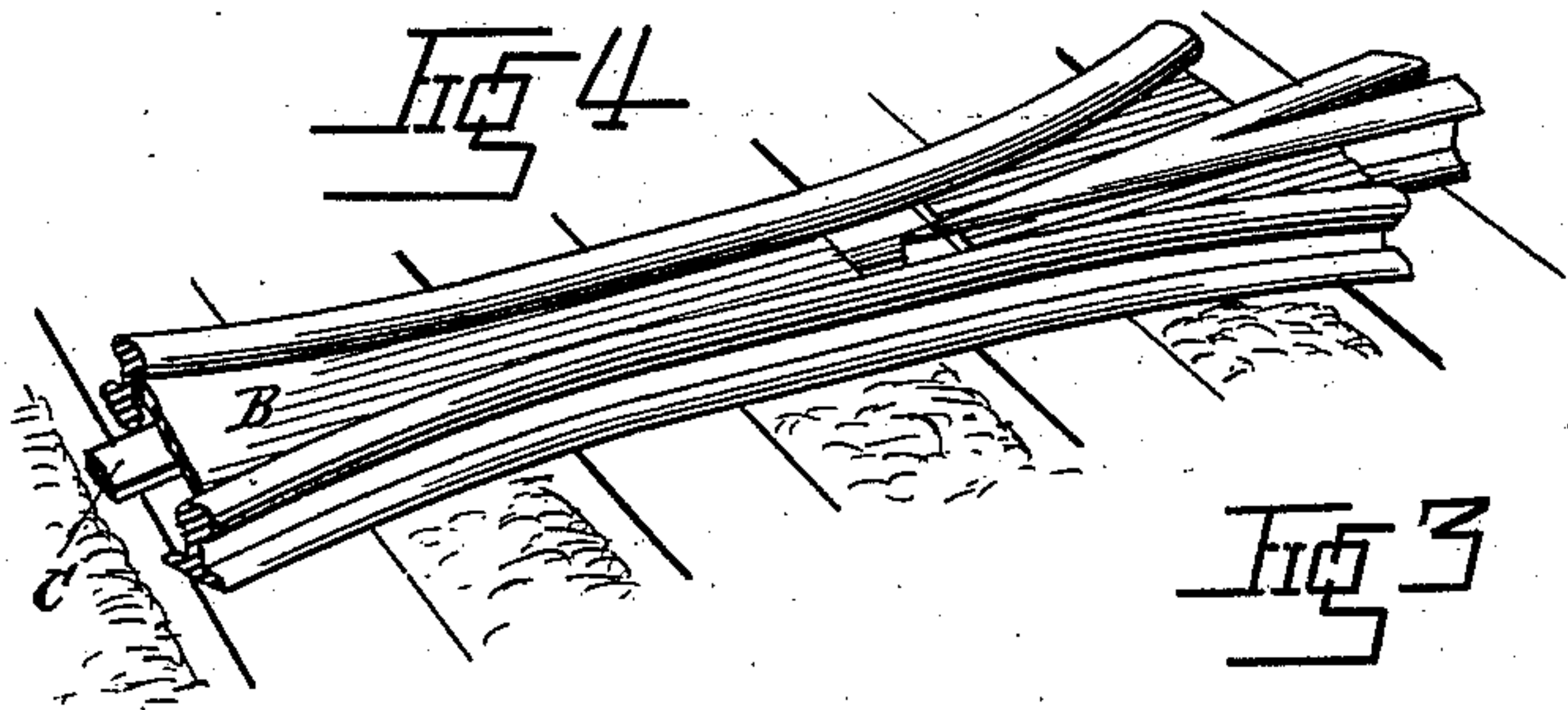


Fig 5

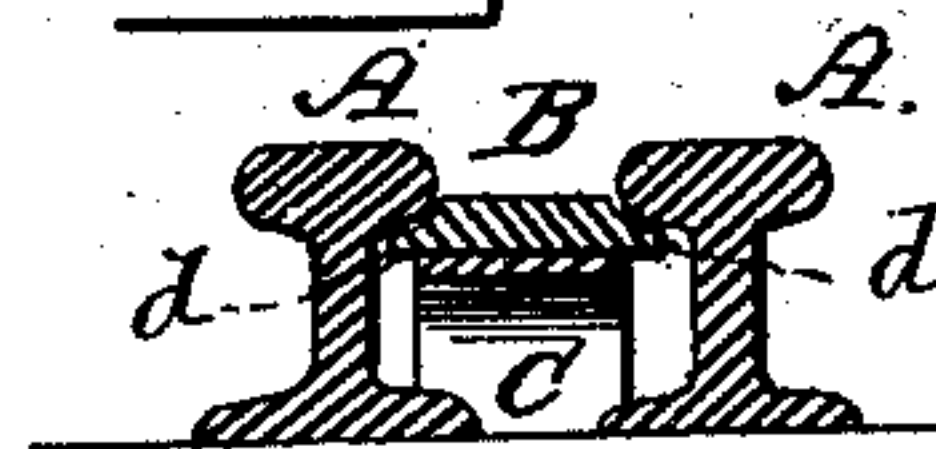
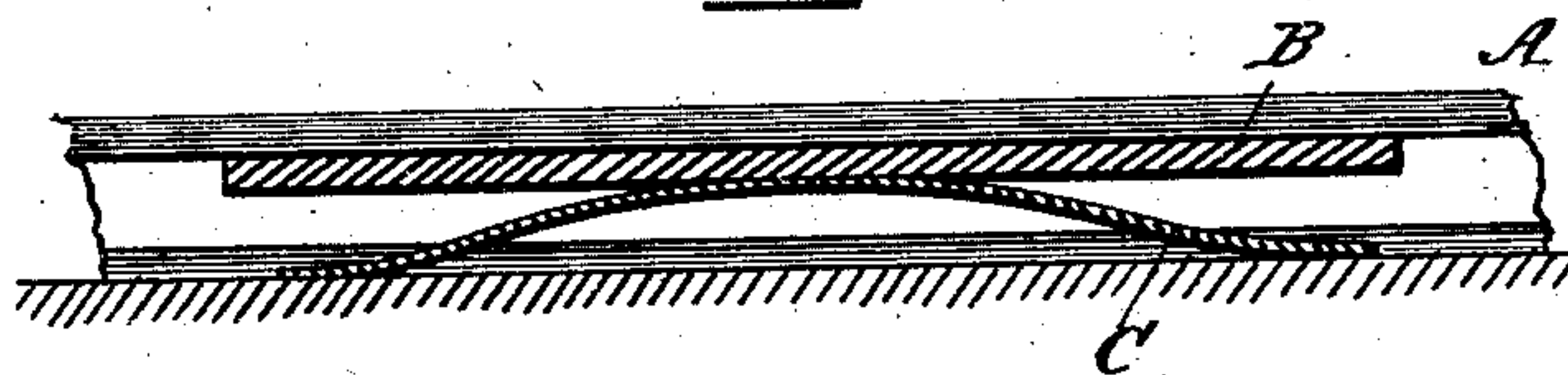


Fig 3



WITNESSES:

*Ad. L. Dietrich*  
*Wm. L. Hinkel*

INVENTOR.

*P. S. Dusenbury*  
*Wm. Johnston*  
ATTORNEYS.



# UNITED STATES PATENT OFFICE.

PHILIP S. DUSENBURY, OF SEDALIA, MISSOURI, ASSIGNOR OF ONE-HALF TO  
W. Z. BAUM AND A. H. RANDALL, BOTH OF SAME PLACE.

## RAILROAD FROG AND SWITCH GUARD.

SPECIFICATION forming part of Letters Patent No. 294,598, dated March 4, 1884.

Application filed April 4, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, PHILIP S. DUSENBURY, a citizen of the United States, residing at Sedalia, in the county of Pettis and State of Missouri, have invented certain new and useful Improvements in Railroad Frog and Switch Guards; 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.

My invention relates to safety devices for railroad frogs and crossings; and it consists, essentially, in a yielding metallic plate placed between the rails or in the angle of the frog, said plate extending entirely across the space between the rails, and either flush with the upper surface, or provided with a flange which allows the plate to come to the under side of the head of the rail. Said plate is held in position against the upper flange of the rails by a spring of metal or rubber, which will yield to the weight of a car-wheel, but is sufficiently strong to prevent the plate moving downward by the weight of the human body.

The invention further consists in a metallic guard plate or plates bolted to the bed-plate of the frog at one end, and having its free end resting on a shoulder of the yielding plate.

The details of construction and operation of the several parts will be hereinafter more fully described, and pointed out in the accompanying drawings, in which—

Figures 1 and 4 are perspective views of my device; and Figs. 2, 3, 5, longitudinal sections.

The object of my device is to provide a guard for railway-frogs, switch-crossings, &c., that will prevent railway-employés from getting their feet caught in said frogs, and thus prevent the accidents of this character which so frequently occur, and are accompanied with the loss of life and limbs.

Referring more particularly to the drawings, the rails A, which compose the frogs, and which may be open or conical-shaped, have placed between them a metallic plate, B, resting on a curved spring, C, either on the ends of said spring, as shown at Fig. 2, or the convex surface, when the spring is inverted, as

in Fig. 3. This spring is of sufficient strength to prevent the plate B from moving downward when an ordinary load is placed on it, but will readily yield when the weight of a car-wheel passes over the plate resting on the bed-plate. At the opening or openings to the frog, I secure to the bed E by bolt *b* a metallic strap, D, the free end of which rests on a shoulder, *a*, of the plate B, provided with the longitudinal flanges *d*, curved to fit the under inside part of the top of the rail. Others prevent the plate B' from projecting above the rails. This prevents the brakeman or employés from striking the foot between the rails, and at the same time gives a gradual rise for the car-wheel. The dotted lines in Fig. 2 show the position of the parts B C D when a car-wheel is passing over the plate. These guards are especially useful at all crossings and switches, and, being simple in construction and easily placed in position, are a convenient and ready means for preventing accidents before referred to.

I am aware that iron plates or fenders have been used at railway-crossings, one extremity of the fender being bent downward to facilitate the passing of the car-wheels, the opposite end having a hinge-connection to a strap secured to the plank crossing. I am also aware of a railroad-frog in the top of which are seated two guards, which jointly cover the space between the rails—each guard having depending arms bearing upon a spring—the ends of the arms being keyed transversely through the frog. I am further aware of a safety device for railway-crossings in which there is a metal guard placed between the rails and its ends bent down, and having underneath it at the ends, and secured thereto, two springs. I am further aware that safety-plates for railroad-switches have been used, in which plates are placed between the switch-rails and frogs, said plates having downward-projecting brackets, to which are hinged rods extending into boxes underneath the rails, and resting on coiled springs in said boxes. Such forms of construction I do not claim.

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

1. In a guard for railway-crossings and switch-frogs, the strap D and the plate B, provided with shouldered ends and longitudinal flanges *d*, said plate being placed between  
5 the rails and supported by a spring, C, substantially as and for the purpose set forth.

2. In a guard for railway crossings and switches, the combination, with the plate having the end shoulders, *a*, and longitudinal  
10 flanges *d*, of the spring C and the strap D, se-

cured at one end to the bed-plate, the opposite end resting on a shoulder of plate B, substantially as and for the purpose set forth.

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

PHILIP S. DUSENBURY.

Witnesses:

WM. H. ROSS,

T. M. LITTLE.