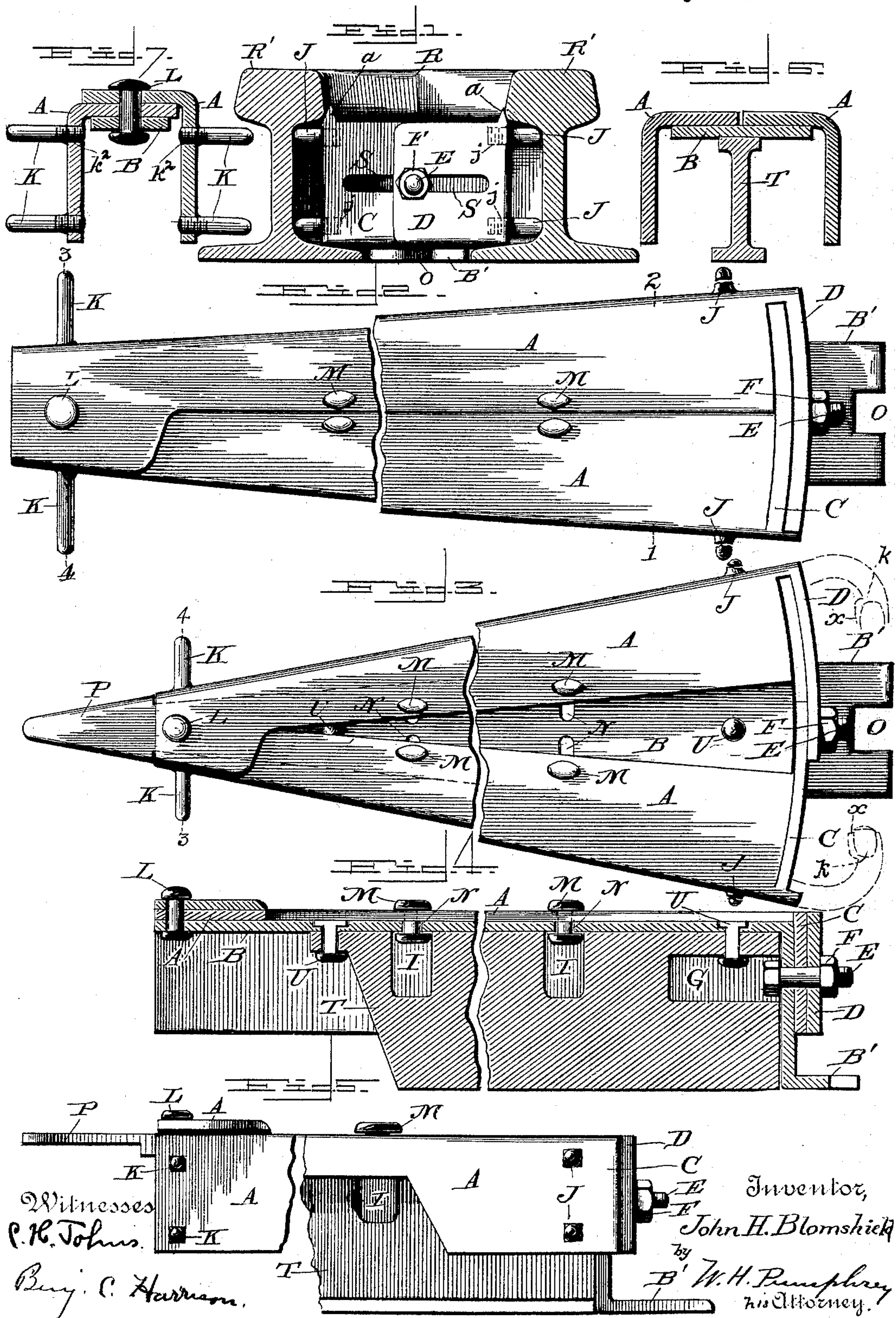


(No Model.)

J. H. BLOMSHIELD.
FOOT GUARD.

No. 520,031.

Patented May 22, 1894.



UNITED STATES PATENT OFFICE.

JOHN H. BLOMSHIELD, OF WEST BAY CITY, MICHIGAN.

FOOT-GUARD.

SPECIFICATION forming part of Letters Patent No. 520,031, dated May 22, 1894.

Application filed June 8, 1893. Serial No. 477,026. (No model.)

To all whom it may concern:

Be it known that I, JOHN H. BLOMSHIELD, a citizen of the United States, residing at West Bay City, in the county of Bay and State of Michigan, have invented certain new and useful Improvements in Foot-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.

This invention relates to certain new and useful improvements in "frog fillings or foot guards" for blocking frogs, switches and other cavities formed between adjacent sides of convergent rails.

The object of the invention is to provide a device of this class that shall possess advantages in point of simplicity, durability, inexpensiveness and general efficiency.

With these and other objects in view, I employ various novel combinations and arrangements of elements which will be hereinafter more fully set forth and specifically pointed out in the claims.

In describing the invention in detail, reference is had to the accompanying drawings forming part of this specification wherein like letters indicate corresponding parts in the several views, in which—

Figure 1:— is a view in end elevation of one form of adjustable block embodying my improvements and showing the same applied to the rails. Fig. 2:— is a top plan view, showing the block closed. Fig. 3:— is a similar view, showing the block extended. Fig. 4:— is a view in vertical section, taken longitudinally of the block. Fig. 5:— is a fragmentary view in side elevation of one end of the block. Figs. 6 and 7 are transverse sectional views taken on the lines 1—2— and 3—4— respectively.

In the drawings: R— denotes the point rail formed by the meeting ends of the inner rails —R'—R'— of the main track and switch, which are of the usual T-form, and in the angular opening formed between these rails, the foot-guard or frog-block is removably secured. This block consists of a base-plate —B— which terminates at one end in an apertured or notched L-shaped foot —B'— through which a spike may be driven to secure the

block against longitudinal movement or play, and as a means for strengthening the block to effectually withstand abnormal strains or sudden shocks, I provide it with a centrally disposed and longitudinally extending rib —T— which may be integral or removable, as desired. When using the ribbed form of base-plate, I cut away portions of the rib to form openings or recesses —I—I—G— for the purpose of readily admitting of the insertion and passage of the securing bolts or rivets —M—M—U—E—. The last named bolt is provided with a lock-nut —F— which will be hereinafter referred to. At the extremity of the base-plate opposite the terminal foot-piece, two wings —A—A— are secured to swing horizontally about a vertical pivot-bolt —L— and are provided with double headed retaining bolts or rivets —M—M— which latter are secured in apertures of the wings and project through and work loosely in curved transverse slots of the base-plate. These wings are angular in cross section and of similar construction, the end-flanges —C—D— being so relatively arranged as to close one over the other.

S—S— represent coincident slots which are formed in the flanges —C—D— and through these slots the bolt —E— passes with the lock nut —F— on the projecting end thereof, thus, the wings may be adjusted to any desired angle to fit snugly into angular openings of varying sizes and securely held in such adjusted position by the lock-nut, as is clearly shown in Fig. 1. To prevent possible slipping of the flanges after being properly secured, as for example, when the nut works loose, the engaging faces thereof may be corrugated, milled or otherwise roughened. I do not confine myself to this particular form of locking device for the wings, as various contrivances may be substituted therefor, such as the extensions —x— of the wings, which are provided with terminal apertured or notched heads, through which spikes —k— may be driven, as shown by dotted lines, Fig. —3—.

To secure the block in position between the rails and against vertical displacement, I provide the wings with threaded openings —k²—j— into which the screw-threaded studs —J—J—K—K— are secured and project later-

ally, with the outer ends engaging the web of the rails at points adjacent the base-flange and head thereof.

5 *a-a*— represent lugs or flanges on the upper faces of the wings which are preferably formed integral therewith. These flanges are arranged so as to abut against the head of the rails and with the engaging faces thereof substantially at right angles to the lateral
10 studs —J—J—K—K—, thus effectually bracing the block against lateral movement. At the smaller end of the block a tapered plate —P— is secured and serves to completely
15 bridge or cover the extreme point of the angular opening between the rails.

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

20 1. In a foot-guard, the combination with a base-plate, of duplicate wings mounted thereon to swing in opposite directions and means for securing the wings at any angle of adjustment, as specified.

2. In a foot-guard, the combination with a base-plate, of duplicate wings mounted there- 25 on to swing in opposite directions, a locking device adapted for securing the wings at any angle of adjustment, and the lateral adjustable projections of the wings adapted for engaging the rails, as specified. 30

3. In a foot-guard the combination with a base-plate having a terminal L-shaped foot and provided with suitable strengthening ribs, of duplicate wings angular in cross section and mounted on the base-plate to swing 35 in opposite directions, a locking device adapted for securing the wings at any angle of adjustment, the lateral adjustable studs of the wings, and the end flanges, as specified.

In testimony whereof I affix my signature in 40 presence of two witnesses.

JOHN H. BLOMSHIELD.

Witnesses:

DAVID LUMGAIR,
L. B. EDINBOROUGH.