

(No Model.)

S. R. BLIZZARD.
FOOT GUARD FOR RAILROAD TRACKS.

No. 462,196.

Patented Oct. 27, 1891.

Fig. 1.

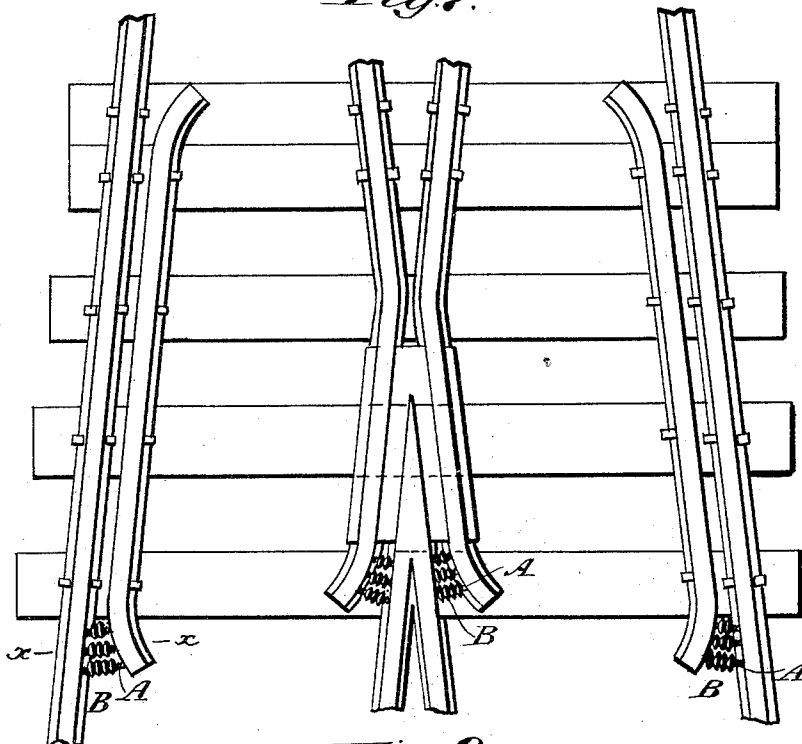


Fig. 2.

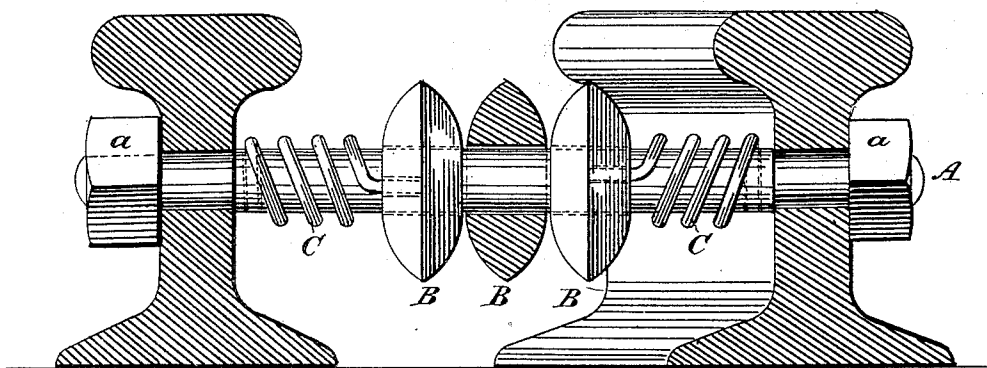
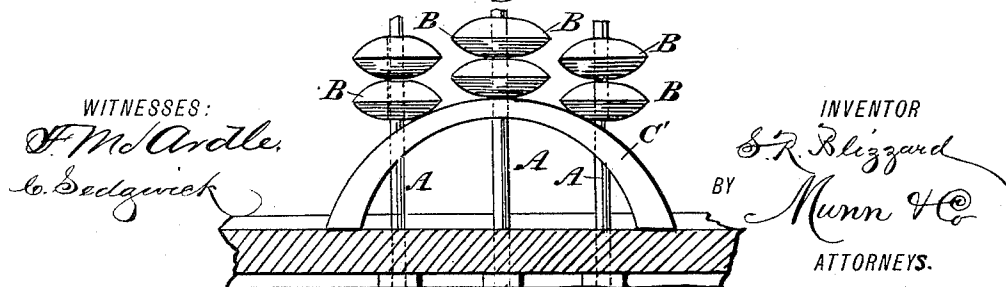


Fig. 3.



UNITED STATES PATENT OFFICE.

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FOOT-GUARD FOR RAILROAD-TRACKS.

SPECIFICATION forming part of Letters Patent No. 462,196, dated October 27, 1891.

Application filed May 20, 1891. Serial No. 393,425. (No model.)

To all whom it may concern:

Be it known that I, STEPHEN R. BLIZZARD, of Lincoln, in the county of Lancaster and State of Nebraska, have invented a new and Improved Foot-Guard for Railway-Tracks, of which the following is a specification, reference being had to the annexed drawings, forming a part thereof, in which—

Figure 1 is a plan view of a portion of a railway-track to which my improvement has been applied. Fig. 2 is an enlarged transverse section taken on the line *xx* in Fig. 1, and Fig. 3 is a modified form of my improvement.

Similar letters of reference indicate corresponding parts in all the views.

The object of my invention is to construct a guard for application to the wedge-shaped spaces between the ends of railway-frogs and between guard-rails and the main rails and other places where a person's foot is liable to be caught.

My invention consists in the combination, with the rail-frog or the guard and main rail, of rods passing through the rails and provided with rollers or washers and springs for pressing the rollers together, the said rollers forming a barrier to the opening of the frog or guard-rail, which will prevent the foot from entering into the space between the rails.

Screw-threaded rods *A* are inserted in the webs of the rails and held in position by nuts *a* at points where the frog-rails or the guard-rails diverge. As many rods *A* are inserted in this position as are required to guard the divergent opening against the entrance of a person's foot into the said opening. Upon the rod *A* are placed rollers *B*, which slide freely on the rod, and which are pressed outwardly away from the webs of the rails by spiral springs *C*, surrounding the rod *A*, abutting against the web of the rails and inserted in holes in the outer rollers of the series.

As the locomotive and cars pass over the frog or over a portion of the main rail adjoining the guard-rail, the flanges of the locomotive and car wheels press the rollers *B* laterally away from the rails, thereby avoiding injury to the guard. As soon as the train has passed, the springs *C* return the rollers *B* to their former position.

To prevent the car-wheels from riding upon the peripheries of the rollers *B*, the said rollers are provided with convex sides and V-shaped peripheries, as shown. When the rollers are in their normal position, they form a sufficient barrier in the divergent opening of the rail to prevent the entrance of a foot between the rails.

In the modification shown in Fig. 3 the curved spring *C'* is substituted for the spiral springs *C*, the said spring being perforated to allow the rods *A* to pass through it. The operation of this modification is the same as that already described.

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

1. The combination, with the divergent ends of the rails of a railway-frog or guard-rail, of one or more rods placed across the divergent space, a series of rollers placed on the said rod, and springs for holding the rollers in a central position, substantially as specified.

2. In a foot-guard for railway-rails, the combination of a rod *A*, a series of rollers *B*, having V-shaped peripheries, and springs *C*, placed on the rod *A* and bearing in opposite directions upon the series of rollers *B*, substantially as specified.

STEPHEN R. BLIZZARD.

Witnesses:

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