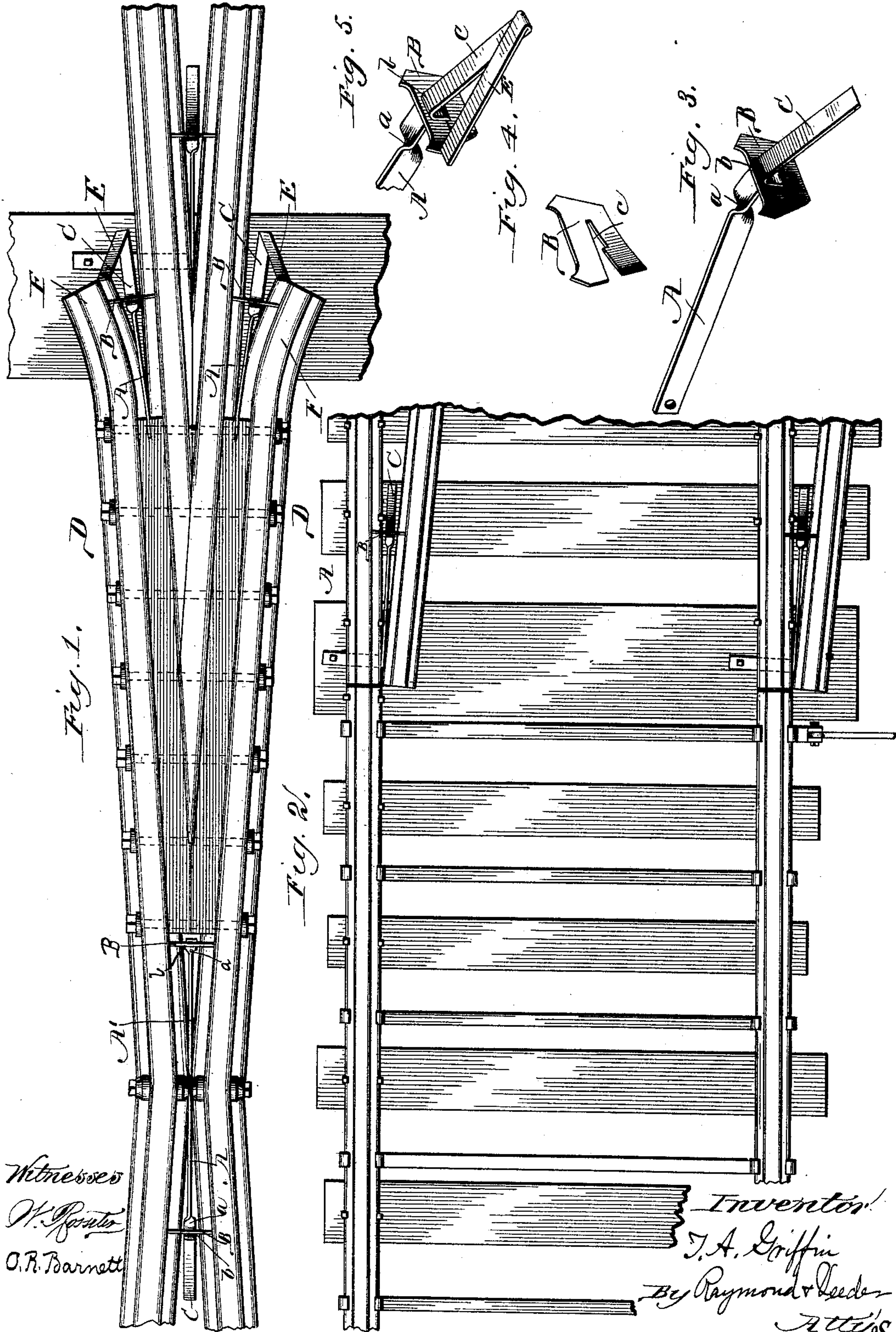


(No Model.)

T. A. GRIFFIN.  
FOOT GUARD FOR RAILWAYS.

No. 414,210.

Patented Nov. 5, 1889.



Witnesses  
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# UNITED STATES PATENT OFFICE.

THOMAS A. GRIFFIN, OF CHICAGO, ILLINOIS.

## FOOT-GUARD FOR RAILWAYS.

SPECIFICATION forming part of Letters Patent No. 414,210, dated November 5, 1889.

Application filed May 24, 1889. Serial No. 311,974. (No model.)

*To all whom it may concern:*

Be it known that I, THOMAS A. GRIFFIN, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Foot-Guards for Railways, of which the following is a specification.

My invention relates to foot-guards which are to be inserted in frogs, switches, and guard-rails; and my invention relates more particularly to a class of foot-guards illustrated in a former patent to me, granted May 1, 1888, and numbered 382,083, in which the space between the rails is not entirely covered over, but is subdivided by a T-shaped guard, so that the space on either side is too small to admit the foot, the stem of the T bisecting the space between the rails, or approximately bisecting it, and the head of the T extending from rail to rail and resting on the flanges thereof and maintaining the guard in its central position.

My invention is primarily intended to add to the efficiency of the foot-guard by forming the end fitting into the wider portion of the space between the rails so that if struck by the foot it will not be so likely to trip one up, and so that it will protect to a certain extent the outer ends of the wing-rails when the guard is applied to a frog.

My invention consists in the parts and combinations and the structural details hereinafter described and claimed.

In the drawings, Figure 1 is a plan view of a frog, and Fig. 2 is a view of a switch to which the guards are applied. Fig. 3 is a perspective view of the guard detached; and Fig. 4 is a view of the part forming the head of the T in a completed guard, which, as it serves to maintain the central position of the stem of the guard, I call the "centering-piece." Fig. 5 is a perspective view of a modification of the guard.

To make the guard, I take a piece of flat bar iron or steel A, (*vide* Fig. 3,) the main portion of which forms the stem of the guard and stands on edge or vertically when in place in the frog or track. At *a*, I give the bar a quarter-twist, so that the outer end of

the guard is horizontal, and near *a*, I form a loop *b*, into which the centering-piece B fits. The centering-piece B, as shown in Fig. 4, is made of a shape to fit between the webs of the rails and underneath their heads, so as to just clear the flanges of the locomotive-drivers of the car-wheels, and the depth of the loop *b* is such as to bring the upper edge of the stem A of the guard on a level with the upper edge of the centering-piece B. At or near the middle of the centering-piece B an opening *c* is punched, whose shape is the cross-section of the piece A. From this opening to the edge of the piece B a cut is made, so that the piece B can be bent, as shown in Fig. 4, and slipped into the loop *b*, after which the centering-piece B is straightened, as shown in Fig. 3. Beyond the loop *b* the piece A is prolonged for a suitable distance and bent downward, so as to form a slanting extension C, this slanting extension serving to prevent one from tripping upon the vertical face of the centering-piece B. In order to protect the ends of the wing-rail D, (*vide* Fig. 1,) the extension C may be made longer and bent back upon itself, as shown at E, Figs. 1 and 5, the end being brought up against or on top of the end of the wing-rail F.

The guard is fastened in place in any suitable manner, as illustrated herein and in my former patent before referred to.

The foot-guard is shown as having the extension C, except at A', Fig. 1; but it is evident that I may form the guard without said extension, retaining, however, the loop *b* and the centering-piece inserted therein, as shown at A', Fig. 1, and described, and I contemplate such a device as within the scope of my invention.

What I claim as my invention is—

1. A foot-guard for railways, consisting of a main stem for dividing the space between the rails, and a transverse centering-piece adapted to extend between the rails and having an opening extended to its edge, through which the main stem passes, substantially as shown and described.

2. A foot-guard for railways, consisting of

the main stem A, twisted at *a*, and having a loop *b*, and the transverse centering-piece B, fitted to said loop, substantially as shown and described.

- 5 3. A foot-guard for railways, consisting of the main stem A, twisted at *a*, and having a loop *b* and extension C, and the transverse

centering-piece B, fitted to said loop, substantially as shown and described.

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Witnesses:

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