No. 858,593. PATENTED JULY 2, 1907.

G. W. GARD.

RAILWAY FROG GUARD.

APPLICATION FILED JULY 21, 1906.

Fig. 1.

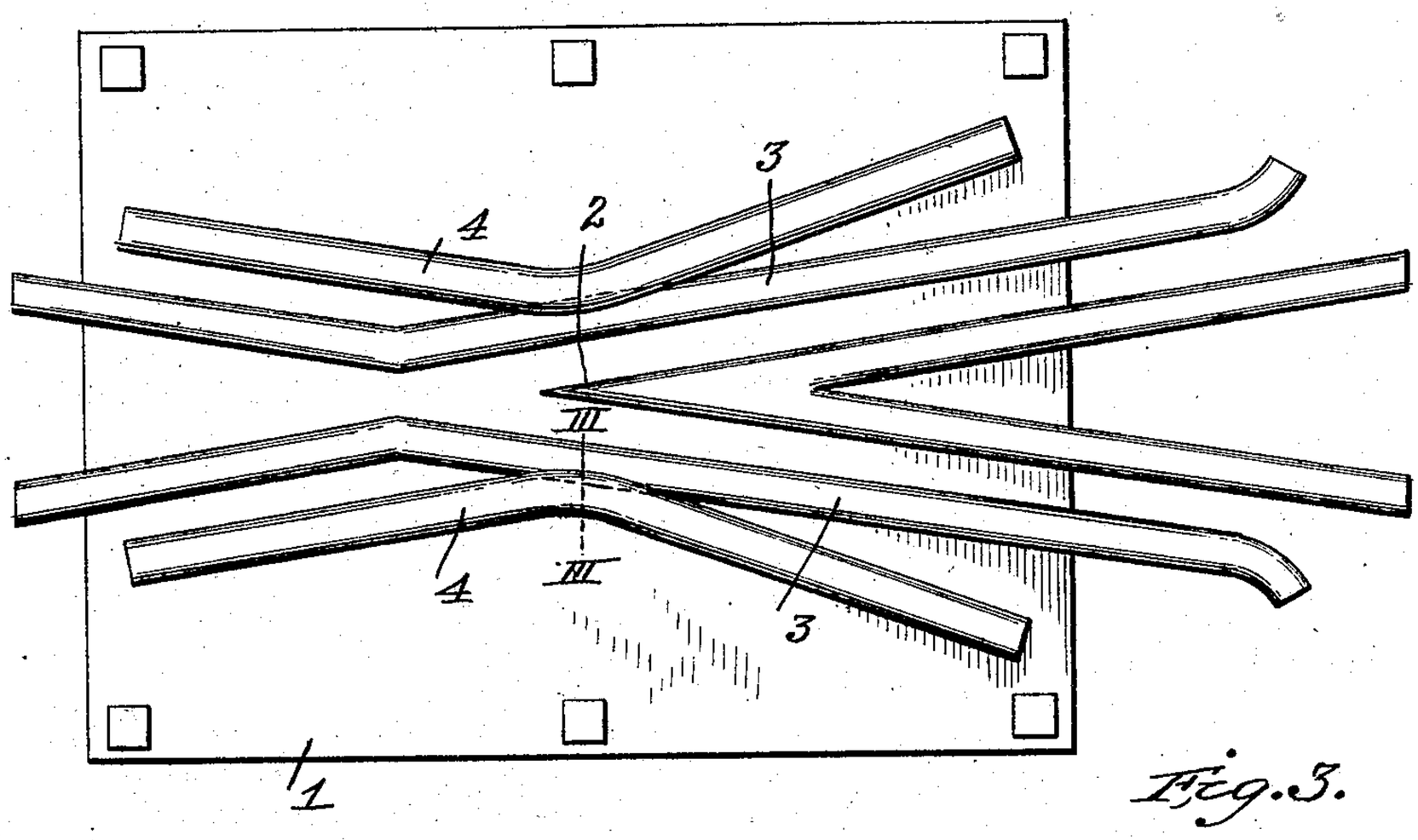


Fig. 3.

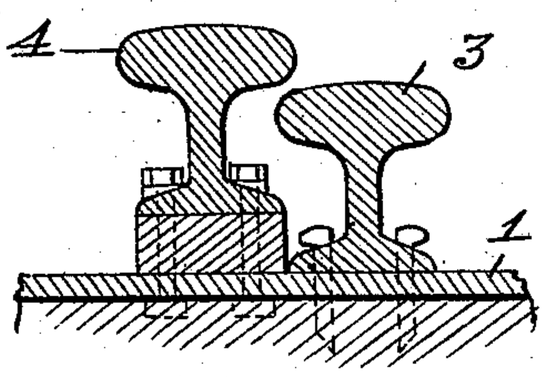
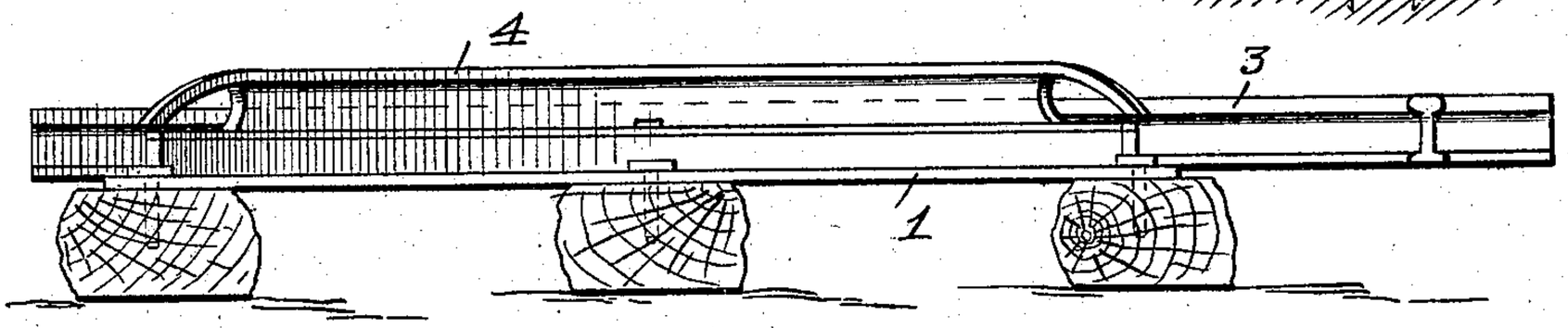


Fig. 2.



Witnesses:
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UNITED STATES PATENT OFFICE.

GEORGE W. GARD, OF PECKVILLE, PENNSYLVANIA.

RAILWAY-FROG GUARD.

No. 858,593. Specification of Letters Patent. Patented July 2, 1907.

Application filed July 21, 1906. Serial No. 327,201.

To all whom it may concern:

Be it known that I, GEORGE W. GARD, a citizen of the United States, residing in the borough of Peckville, county of Lackawanna, State of Pennsylvania, have invented certain new and useful Improvements in Railway-Frog Guards, of which the following is a specification, reference being had therein to the accompanying drawing, in which

Figure 1 is a plan view of a frog with the guard applied; Fig. 2 a side elevation thereof; and Fig. 3 a detail transverse sectional view taken on the line III—III of Fig. 1.

The object of the invention is to provide a guard of the class described for the ordinary railway frog, to prevent cars being derailed at that particular point. The wheels are liable to jump the track when they strike the frog point, and to prevent this I provide near the frog point a guard to prevent the wheels moving outward over the rail should they at that point be raised above the rail sufficiently to free their flanges.

To the accomplishment of this object and such others as may hereinafter appear, the invention consists of the parts and combination of parts hereinafter fully described and particularly pointed out in the appended claims, reference being had to the accompanying drawing forming part of this specification, in which the same reference characters designate like parts throughout the several views.

Referring to the various parts by numerals, 1 designates the base plate of the frog; 2 the frog point; and 3 the usual wing rails which ordinarily serve to protect the frog and to guide the wheels from the main track over the frog point.

The frog point is subject to great wear as it is pounded heavily by the car wheels as they travel across the space which necessarily intervenes between the frog point and the main portion of the track. It frequently occurs that the wheels are derailed at this point because of the jolting received as they strike the frog point. To retain the wheels in position I provide guards 4 which conform in plan view substantially to the shape of the wing rails. These guard rails extend above the surface of the wing rails and the switch point and slightly overlap the outer edges of the wing rails, as shown clearly in Fig. 1. These guard rails are arranged on each side of the frog point, and the portions thereof which overlap the wing rails are placed close to the point of the frog and laterally opposite each other, the point of the frog projecting slightly beyond said overlapping parts. The object of thus locating these innermost points of the guard rails is to permit the wheel to engage the frog point before there is any possibility of contacting with the guard rails. This avoids any possibility of the wheel flanges being thrown over on the frog point, as might be the case if said guard rails were located beyond the point of the frog.

The guard rails are preferably formed of a piece of rail bolted to a suitable spacing plate to raise it above the upper surface of the frog point and wing rails; and the ends of these rails are cut out as shown in Fig. 2, so that the upper tread part thereof may be bent down as shown, so as to do away with all sharp projecting ends.

From the foregoing it will be readily seen that the guard rails being located as described will effectually prevent the derailment of the wheels at the point where they first contact with the frog; and that as said guard rails are separate from and independent of the frog and the wing rails, they may be removed when worn and new ones secured to the frog plate.

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

1. A railway frog comprising a frog point, wing-rails on each side of said frog, a portion of each of said wing rails being parallel with the adjoining side of the frog point, and a guard rail arranged along the outer side of each of the wing rails, a portion of each of said guard rails being substantially parallel with the adjoining portion of the wing rails, and a portion of each of said guard rails being at an acute angle with respect to the adjoining side of the frog point and the adjoining portion of the wing rail, and at an obtuse angle with respect to the remainder of the guard rail, said guard rail at its angle being above the upper surface of the wing rails and the frog point and overlapping the adjoining wing rail adjacent the frog point, said frog point projecting beyond the overlapping parts of the guard rails, whereby a wheel entering the frog will have passed the frog point before reaching the overlapping part of the guard rail, substantially as shown and described.

2. A railway frog comprising a frog point, wing rails, guard members having portions which extend over the heads of the wing rails adjacent the point of the frog, and portions extending at an angle thereto and diverging from the wing rails; substantially as described.

3. As an article of manufacture, a guard member for a railway frog comprising a casting having a web provided at its upper end with a head which is adapted to project slightly over the head of one of the wing rails of the frog; substantially as described.

In testimony whereof I hereunto affix my signature in the presence of two witnesses this 12th day of July 1906.

GEORGE W. GARD.

Witnesses:
S. W. ARNOLD,
MERTON L. HAY.