

H. W. FARLEY.
RAILWAY FROG GUARD.

No. 10,735.

Patented Apr. 4, 1854.

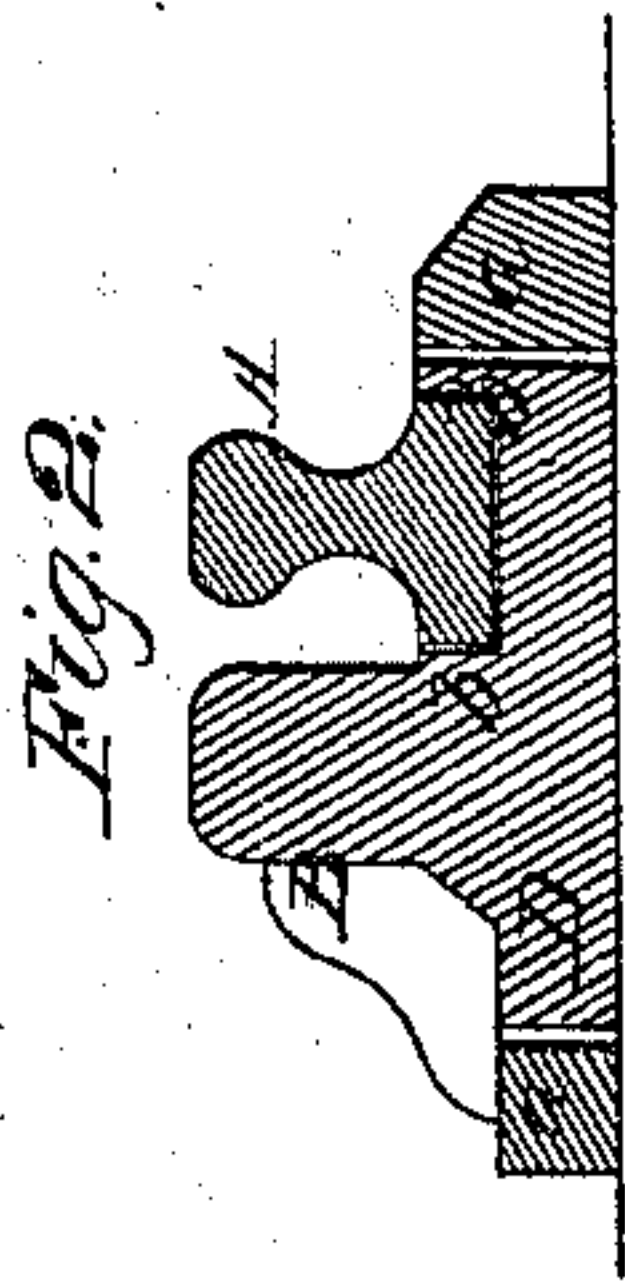
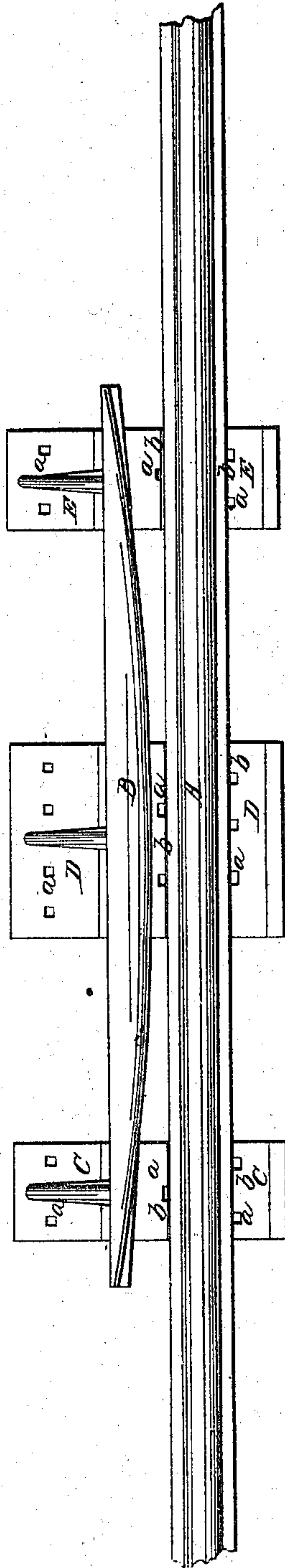


Fig. 1.



UNITED STATES PATENT OFFICE.

HENRY W. FARLEY, OF BOSTON, MASSACHUSETTS.

RAILROAD FROG-GUARD.

Specification of Letters Patent No. 10,735, dated April 4, 1854.

To all whom it may concern:

Be it known that I, HENRY W. FARLEY, of East Boston, in the county of Suffolk and State of Massachusetts, have invented a new and useful Improvement in Railway Frog-Guards; and I do hereby declare that the same is fully described and represented in the following specification and the accompanying drawings, letters, figures, and references thereof.

Of the said drawings Figure 1, denotes a top view of a frog guard applied to the rail of a railway according to my improvement. Fig. 2, is a vertical and cross section of the same.

The main rail of the railway, or other track rail as it may be termed is seen at A while the frog guard is shown at B. The object of the frog guard it is well known is to prevent the flange of a wheel on the opposite track rail, from running into the wrong groove of the frog, when it is passing the angular point of the frog. It accomplishes this by bearing against the inner side of the flange of one wheel, while the other wheel of the axle is passing the angular part or point of the frog. It has been customary to confine the frog guard down to the track rail sleepers, by means of spikes, or some contrivance separate from the track rail and (particularly in winter) it has been found exceedingly difficult to keep the frog guard down in place, for it is exposed to severe lateral blows of the wheels, when their opposite wheels are passing the frog. In winter when the space between the frog guard, and the track rail next adjacent to it, is more or less filled with snow or ice, such snow will greatly aid the flanges of the wheels, in tearing up or forcing the frog guard from its bed.

In order to keep the frog guard in place. I cast it of iron, and with one or more projections C, D, E, and these projections I extend directly underneath the track rail A, so that the track rail when in place shall rest upon them or in a groove *b*, cut or formed down in each. Through these projections suitable holes *a*, *a*, *a*, &c may be made, for the purpose of receiving bolts or

spikes for securing both the frog guard and the track rail down upon the sleepers, or foundation of the railway.

I thus make use of the whole or a great part of the weight of a car, when on the track rail, to keep the frog guard down in place, and to counteract the effects of lateral shocks of its wheels. By laying the track rail in grooves of the projections C, D, E, as seen at *b*, in Fig. 2, the pressure of the flanges of the wheels, in snow or ice that may get between the frog guard and the track rail, is prevented from moving the guard away from the track rail, it being of the utmost importance that their true distance asunder be accurately preserved, otherwise the carriages will be very liable or of a certainty thrown off the track, which accident is often productive of the most lamentable consequences. The idea of using the weight of the carriage to keep the frog guard down in place is my own, and to embody it a practical shape it is necessary that both the frog guard, and the track rail should be so connected by some projection from the former that the weight which presses on the latter should serve to counteract the tendency of the lateral blows of the wheel flanges to throw the guard out place.

What I claim as my invention, and desire to secure by Letters Patent is—

The supporting of the track-rail, opposite the frog on the projecting base of the frog-guard as herein set forth, so that without the intervention of both or other fastenings liable to become loose, or deranged, the guard is held down by the track-rail. But I make no claim to supporting the frog-guard and adjacent track-rail in a common chair, as this is neither new nor capable of affording the security against accidents which my invention affords.

In testimony whereof I have hereto set my signature this eighteenth day of August A. D. 1852.

HENRY W. FARLEY.

Witnesses:

R. H. EDDY,
JOHN NOBLE.