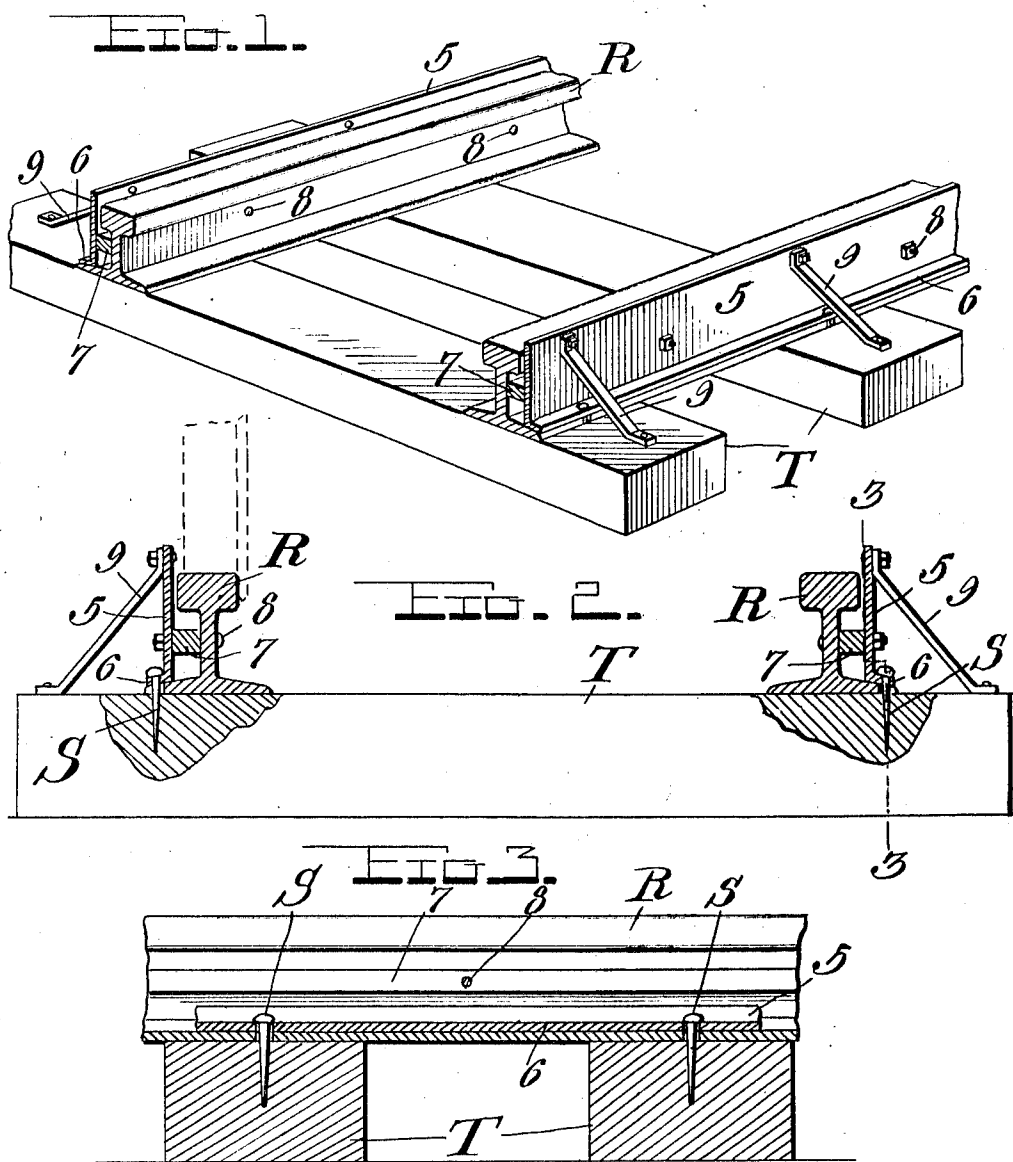


J. J. LYNCH.
RAIL GUARD.
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992,968.

Patented May 23, 1911.



Witnesses

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RAIL-GUARD.

992,968.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JOHN J. LYNCH, a citizen of the United States, residing at Anaconda, in the county of Deerlodge and State of Montana, have invented certain new and useful Improvements in Rail-Guards, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to improvements in guards for track rails and has for its primary object the provision of a simple and efficient guard of the above character which will effectually prevent the truck wheels leaving the rails when moving upon an inclined or curved portion of the track, thereby obviating the liability of accident.

A further object of the invention is to provide a rail guard which may be easily and quickly secured in position and is extremely rigid and substantial.

With these and other objects in view, the invention consists of the novel features of construction, combination and arrangement of parts hereinafter fully described and claimed, and illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view illustrating a rail guard embodying my improvements; Fig. 2 is a transverse section; and Fig. 3 is a section taken on the line 3—3 of Fig. 2.

Referring in detail to the drawing R designates the rail which is arranged upon the ties T in the usual manner.

My improved guard is adapted to be arranged closely adjacent to one side of the rail head and comprises the body or guard plate 5. This plate is formed with a right angularly extending flange 6 at its lower longitudinal edge, said flange being positioned upon the base of the rail. It will be observed from reference to Fig. 2 that the inner face of the guard plate 5 is slightly spaced from the side of the rail head, thus preventing contact of the truck wheels with said guard plate. Spikes S extend through suitable openings in the longitudinal flange 6 and are received in spike receiving recesses which are formed in the base flange of the rail, said spikes being of sufficient length to extend deeply into the supporting ties. The recesses may be readily provided in the rail base by cutting away the flanges while the metal is in a heated state during the process of forming the rail. The guard

plate 5 is rigidly supported and maintained in spaced relation to the rail by means of a metal bar 7 which is longitudinally disposed between the web of the rail and said plate, suitable fastening bolts 8 extending through the guard plate; the bar and the rail web whereby the same are rigidly connected. In order to further support and brace the guard plates 5 against outward movement, I provide the diagonal brace bars 9, the upper ends of which are bolted to the guard plate at its upper edge, the lower ends of said braces being securely fastened to the rail supporting ties. The guard plate 5 is of sufficient width to extend above the surface of the tread of the rail so as to prevent transverse movement of the truck wheels of a train over the rail heads, thereby obviating the possible derailment of the train when moving upon a steep grade or around a sharp curve of the track.

From the above description it will be apparent that a rail guard constructed in accordance with my invention will be extremely rigid and substantial when properly arranged in combination with a rail and will efficiently serve the purpose for which it is designed. It will be understood that the guard is not provided along the entire stretch of track, but only on those portions where the trucks are liable to leave the track rails owing to the steepness of the grade or other conditions of the track which are rendered necessary owing to the nature of the road bed. The device is, moreover, extremely simple and may be easily and quickly secured in its proper operative position. The guard is adapted to be constructed entirely from cast iron or steel and owing to its extreme simplicity, may be manufactured at a low cost.

Having thus described the invention what is claimed is:—

The combination with a rail, of a guard plate arranged adjacent to the rail having a flange formed on its lower longitudinal edge and disposed upon the base flange of the rail, said guard plate extending above the tread of the rail, rail securing spikes extending through the flange on the lower edge of the guard plate to secure said plate and the rail on the ties, a spacing bar longitudinally disposed between the guard plate and the web of the rail to space the inner face of the plate from the side of the rail

head, bolts extending through the guard
plate, the spacing bar and the rail web to
rigidly secure the same together, and a plu-
rality of diagonal braces rigidly secured at
5 their upper ends to the guard plate above
the tread of the rail and at their lower ends
to the rail ties.

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

JOHN J. LYNCH.

Witnesses:

ALBERTINE SCHULTZ,
HELEN DUANE.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."
