

M. F. WELCH.
 DERAILMENT GUARD.
 APPLICATION FILED OCT. 14, 1910.

995,309.

Patented June 13, 1911.

Fig. 1.

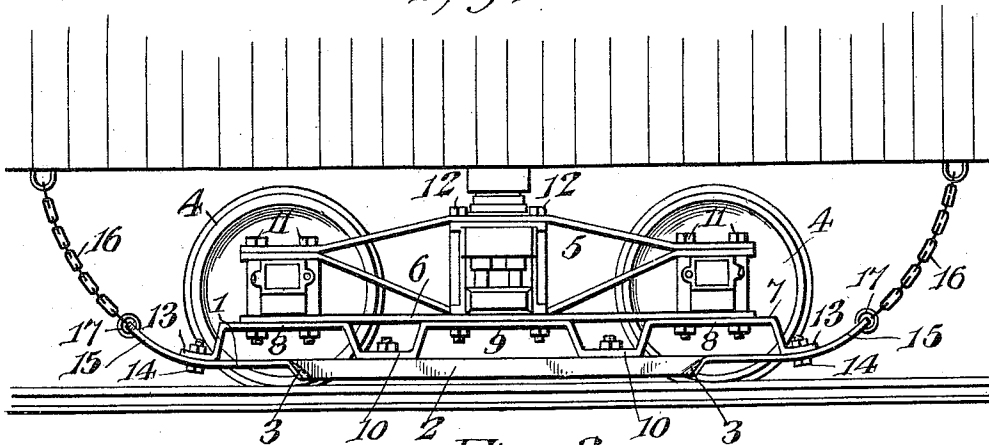


Fig. 2.

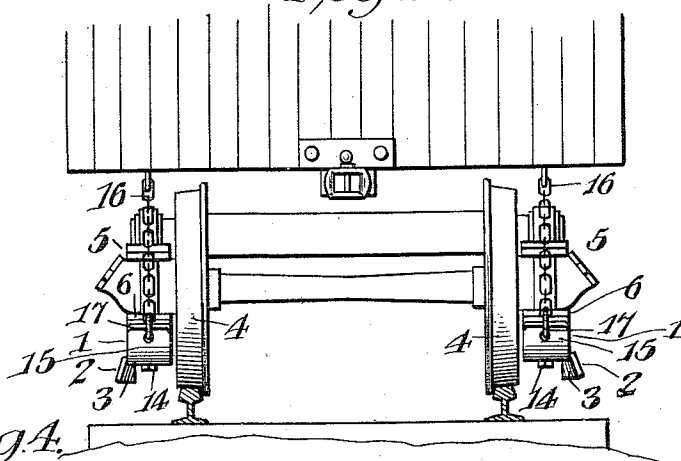


Fig. 4.

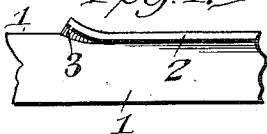
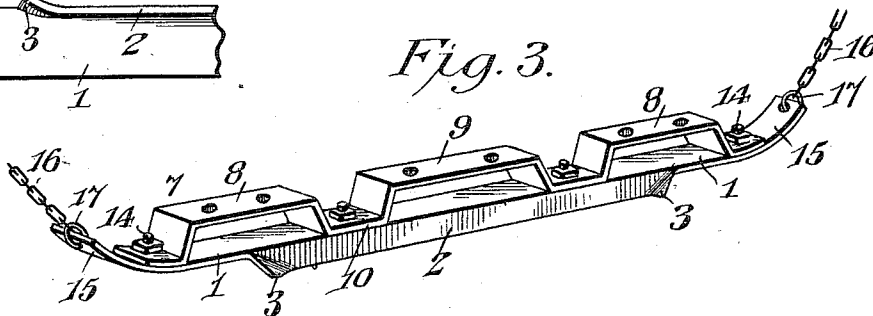


Fig. 3.



WITNESSES

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MARION F. WELCH, OF HOLLIS, KANSAS.

DERAILMENT-GUARD.

995,309.

Specification of Letters Patent. Patented June 13, 1911.

Application filed October 14, 1910. Serial No. 587,051.

To all whom it may concern:

Be it known that I, MARION F. WELCH, a citizen of the United States, residing at Hollis, in the county of Cloud and State of Kansas, have invented a new and useful Derailment-Guard, of which the following is a specification.

The invention relates to improvements in derailment guards.

10 The object of the present invention is to improve the construction of derailment guards, and to provide a simple, efficient and comparatively inexpensive guard, adapted to be readily applied to a truck and arranged
15 to positively engage the rail in event of the wheels leaving the same, and adapted to prevent the truck from turning edgewise and wrecking a train.

20 With these and other objects in view, the invention consists in the construction and novel combination of parts hereinafter fully described, illustrated in the accompanying drawing, and pointed out in the claim here-
25 to appended; it being understood that various changes in the form, proportion, size and minor details of construction, within the scope of the claim, may be resorted to without departing from the spirit or sacrific-
30 ing any of the advantages of the invention. In the drawing:—Figure 1 is a side elevation of a derailment guard, constructed in accordance with this invention, and shown applied to a car. Fig. 2 is an end elevation
35 of a car, illustrating the arrangement of the opposite derailment guards. Fig. 3 is a perspective view of the derailment guard detached. Fig. 4 is a detail view of a portion of the shoe.

40 Like numerals of reference designate corresponding parts in all the figures of the drawing.

In the embodiment of the invention illustrated in the accompanying drawing, 1 designates a shoe constructed of suitable material and consisting of a horizontal body portion, provided at the outer side edge with
45 a depending longitudinal flange 2, having its terminals 3 bent outwardly to enable it to clear the ends of the rails and similar obstructions, while the shoe is riding upon the
50 top of the rails. The shoe is located at the outer faces or sides of the wheels 4 in close proximity to the same, its inner edge being preferably arranged about one inch from the
55 wheels, and it is located above the plane of the rails. The lower edge of the guard flange

being preferably arranged about one inch above the plane of the treads of the rails to enable it to clear switches, frogs and the like. By arranging the shoe in this position, 60 it is practically impossible for the wheels 4 of the truck 5 to leave the rails without the shoe dropping thereon and supporting the load.

The shoe is located below the plane of 65 the pedestal tie bar 6, and it is connected therewith by a combined attaching and spacing bar 7, constructed of suitable metal and bent to form central and side supporting loops 8 and 9 and intermediate bottom at-
70 taching portions 10. The end loops, which fit against the pedestal tie bar below the journal boxes, are secured to the truck by means of journal box bolts 11, and the central sup-
75 porting loop, which is fitted against the intermediate portion of the pedestal tie bar, is secured to the same by the column bolts 12 of the truck. The intermediate attaching
80 portions 10 and the terminals 13 of the bar 7 are fitted against the upper face of the body portion of the shoe and are fastened to the same by bolts 14, or other suitable
85 fastening devices. The terminal portions 13 of the bar 7 are bent outwardly to fit the body portion of the shoe, and they are at-
85 tached to the terminal portions thereof beyond the ends of the depending guard flange. The loops of the bar 7 space the shoe the proper distance from the pedestal tie bar
90 and support the shoe at the outer side of the wheels.

The terminal portions 15 of the body portion of the shoe are extended beyond the depending guard flange and are curved up-
95 wardly and are connected to the lower ends of the chains 16, which are secured at their upper terminals to the body of the car. The lower terminals of the chains are equipped with rings 17, which are linked
100 into suitable perforations of the ends of the shoe. The chains, which are of sufficient length to permit the vertical movement and the lateral vibration of the car body, are adapted to maintain the trucks in aline-
105 ment with the body of the car, and they prevent the trucks from turning around side-
wise and wrecking a train.

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

A derailment guard including a shoe consisting of an approximately horizontal body

portion extending longitudinally of a truck
beneath the pedestal tie bar thereof and pro-
vided at its outer side with a depending
guard flange located above the plane of the
5 rails, said body portion being extended
beyond the ends of the depending guard
flange and curved upwardly, a combined con-
necting and spacing bar bent to form cen-
tral and end supporting loops secured to
10 the pedestal tie bar by the journal box bolts
and the column bolts, respectively, the said
bar being secured at its terminals and at
points between the supporting loops to the
said shoe and the terminals of the bar being

located beyond the ends of the guard flange 15
and supporting the extended terminal por-
tions of the body of the shoe, and chains
for connecting the extended terminals of the
shoe with the body of a car for maintaining
the truck in alinement therewith. 20

In testimony, that I claim the foregoing
as my own, I have hereto affixed my sig-
nature in the presence of two witnesses.

MARION F. WELCH.

Witnesses:

HARRY LOUGHMILLER,
ROBT. MCGAUGH.

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