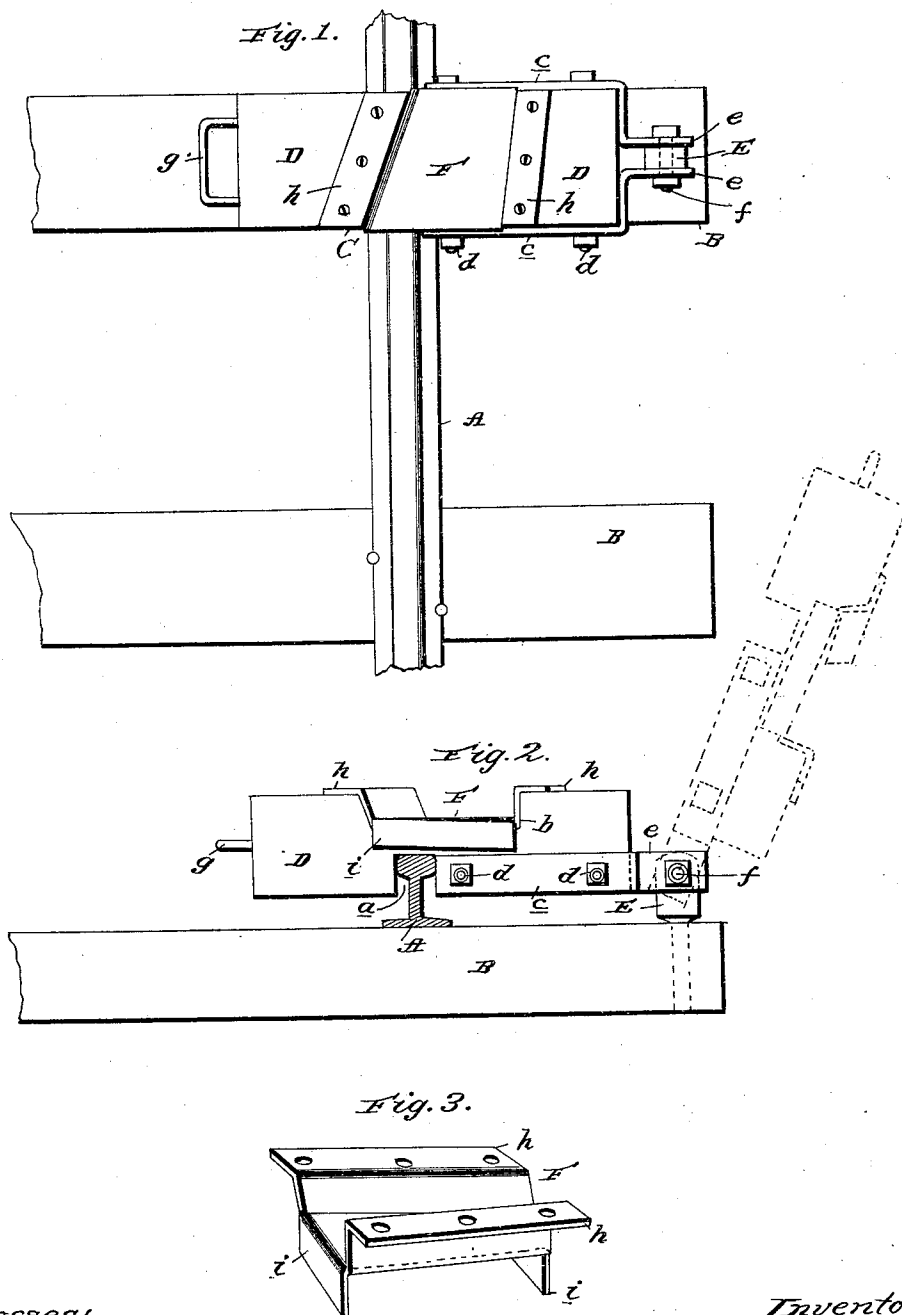


(No Model.)

O. J. TRAVIS.
DERAILING FROG.

No. 479,338.

Patented July 19, 1892.



Witnesses:
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UNITED STATES PATENT OFFICE.

OWEN J. TRAVIS, OF MARSHALLTOWN, IOWA, ASSIGNOR OF ONE-HALF TO
ALBERT E. SHORTHILL, OF SAME PLACE.

DERAILING-FROG.

SPECIFICATION forming part of Letters Patent No. 479,338, dated July 19, 1892.

Application filed November 28, 1891. Serial No. 413,391. (No model.)

To all whom it may concern:

Be it known that I, OWEN J. TRAVIS, a citizen of the United States, residing at Marshalltown, in the county of Marshall and State of Iowa, have invented certain new and useful Improvements in Derailing-Frogs; and I do declare the following to be a full, clear, and exact description of the invention, such as
5 it appertains to make and use the same.

This invention has relation to a device to be known as a "derailing" or "safety" frog; and it has for its object the construction and adaptation of the frog to a railway-rail so as
15 to prevent cars when left on a siding from running out onto or into the main track, which so frequently occurs in case of storms or other moving power when cars are left standing on a siding, by derailing the car or cars before
20 crossing a switch or coming in such close proximity to the rails of the main track as to cause a collision or serious damage by a passing train. This object is accomplished by the means shown and illustrated in the accompanying drawings, in which—

Figure 1 is a plan view of a portion of the outer rail of a siding, showing my improvements applied. Fig. 2 is a cross-sectional view of said rail, showing in full lines my improved frog in an operative position across
30 the rail and in dotted lines in a raised position, as when being taken out of use; and Fig. 3 is a perspective view of the steel shoe or angular wear-plate which I employ in the oblique groove or recess on the face of the frog.

Referring by letter to said drawings, A indicates the outer rail of a siding, and B the cross-ties.

C indicates my improved frog or derailing device. This frog is composed of a block D, of wood or other suitable material, having a transverse groove or recess *a* on its under side and at a point to bridge or straddle the head or ball of the rail when in position. This
45 block is provided on its upper side in an oblique manner with a depression, groove or recess *b*, so disposed with respect to the tread of the rail as to receive the wheel of a car from one direction and guide the same off of the rail. This block is provided at opposite sides
50 and at one end with metallic straps *c*, which

are secured to said block by means of bolts *d* and nuts or other suitable fastening devices. These straps terminate at their outer ends in parallel branches *e*, and are pivoted at this
55 point to the upper end of a stand-bolt E, which is secured to and rises from one of the cross-ties, as shown, a transverse bolt *f* being preferably employed with a nut to pivotally connect the straps of the block to said stand-
60 bolt. The oblique recess *b* inclines upward slightly from the entering end, as shown, and the block D is preferably provided at its inner end with a hand-loop or staple *g*, whereby said frog or derailing device might be con-
65 veniently manipulated.

F indicates a shoe or wear-plate, which is preferably composed of steel. This plate or shoe is shaped to be snugly seated in the oblique recess of the frog, and is provided with
70 horizontal lateral flanges *h*, having perforations for the reception of screws or bolts to secure the same to the block, and said plate, which has its bearing-face inclined to correspond with the inclination in the face of the
75 block, is also provided at opposite ends of the depressed portion with depending flanges *i* to embrace the block from opposite sides.

In operation it will be seen that when a car or a number of cars have been left on a siding and it is desired that they should be prevented from accidentally entering the main track or approaching so closely thereto as to cause damage by a passing train, it is simply
80 necessary to throw the derailing device or frog across the outer rail of such siding at a proper point, and if such cars should be moved by wind or other force as they reach the derailing device they will be positively
85 moved off of the rails and at such a point with respect to the main track as to absolutely prevent a collision or contact with a moving train. When it is desired that the siding should be free, it is simply necessary
90 to take hold of the frog of the derailing device and throw it outwardly upon its hinge.

Having described my invention, what I claim is—

1. A derailing-frog having a recess in its under side to receive the ball or head of a railway-rail and having an oblique recess or guide on its upper side, said frog being hinged

so as to turn laterally, substantially as specified.

2. The derailing-frog comprising the block having the transverse recess in its under side
5 to bridge a rail and the oblique recess in its upper side, the straps secured to the said block, the wear-plate or shoe secured in said oblique recess, and the bolt for pivotally connecting one end of the straps to a tie, sub-
10 stantially as specified.

3. The combination, with a railway-rail and cross-tie, of a stand-bolt rising from one end of said tie, the two straps pivoted at one end

to the head of the bolt, the block secured to said straps and having the groove or recess
15 in its under side to straddle a rail-head, and the oblique groove on its upper side to receive a car-wheel and the angular plate secured in the upper groove, substantially as specified.

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

OWEN J. TRAVIS.

Witnesses:

ANTHONY C. DALY,
THEO. F. BRADFORD.