

(No Model.)

W. H. WILMORE.
WRECKING FROG.

No. 471,927.

Patented Mar. 29, 1892.

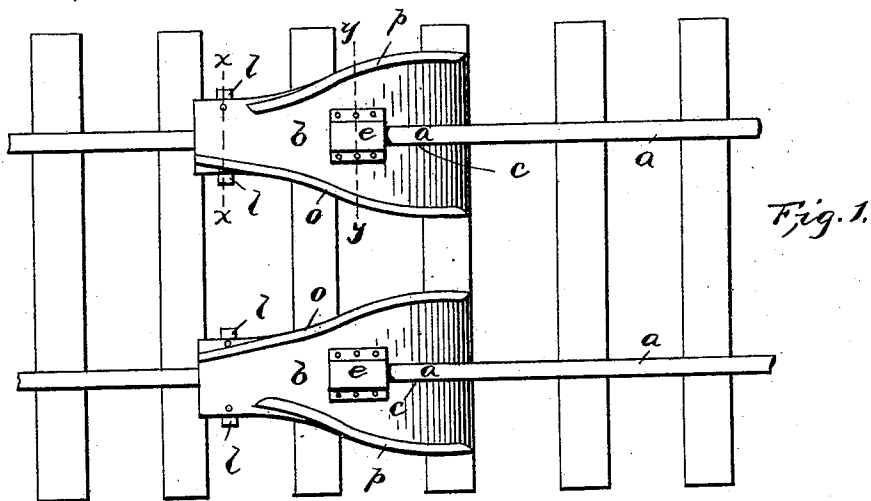


Fig. 1.

Fig. 2.

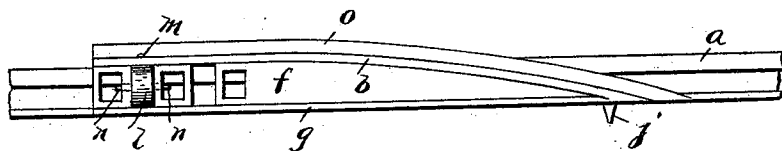


Fig. 3.

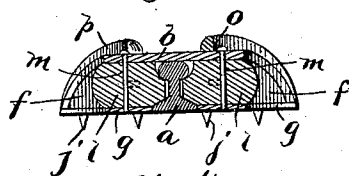
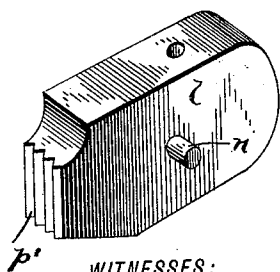


Fig. 5.



WITNESSES:

E. C. Duffy
H. E. Peak

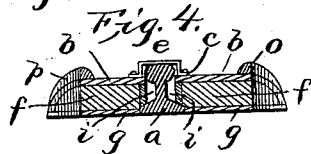


Fig. 4.

INVENTOR

W. H. Wilmore

BY

E. C. Duffy
ATTORNEY.

UNITED STATES PATENT OFFICE.

WILLIAM HENRY WILMORE, OF MARSHALL, TEXAS, ASSIGNOR OF ONE-HALF
TO HENRY R. MORGAN, OF SAME PLACE.

WRECKING-FROG.

SPECIFICATION forming part of Letters Patent No. 471,927, dated March 29, 1892.

Application filed June 11, 1891. Serial No. 395,937. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM HENRY WILMORE, of Marshall, in the county of Harrison and State of Texas, have invented certain new and useful Improvements in Wrecking-Frogs; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form part of this specification.

This invention relates to certain improvements in railroad wrecking-frogs.

The object of the invention is to provide an improved frog for use in placing derailed cars or locomotives upon the rails, exceedingly simple and durable in construction, and formed substantially in one piece—that, is not in sections—and having improved means to lock the frog to the rail. These objects are accomplished by and this invention consists in certain novel features of construction and in combinations of parts more fully described hereinafter, and particularly pointed out in the claims.

Referring to the accompanying drawings, Figure 1 is a top plan showing two frogs in operative position on a track. Fig. 2 is a side elevation of the frog on a rail. Fig. 3 is a cross-section on line *x x*, Fig. 1, of the frog and rail, showing the clamps engaging the rail. Fig. 4 is a section on line *y y*, Fig. 1. Fig. 5 is a detail perspective of one of the sliding jaw-clamps.

In the drawings the reference-letter *a* indicates the rails.

The frog is constructed to straddle or fit on the rail and is provided with clamping or holding devices, which prevent longitudinal slipping or raising of the frog during the operation of replacing the cars. The upper surface of the frog forms an upward incline on each side of the rail, which inclines gradually decrease in width and form one surface above the rail, as clearly shown. This top surface of the frog is formed by a bent steel plate *b*, tapering upwardly in width, as shown, and bifurcated at its lower end at *c* to receive the rail and pass down on both sides thereof. At the upper end of this bifurcation the steel

plate is provided with the metal hood *e*, which fits over the rail. This integral steel plate is rigidly secured to suitable sides and supports *f*, which in turn are rigidly secured to the bottom of the frog, which is formed by two metal plates *g*, these plates being flat, as shown, and so secured and formed as to leave a channel *i* centrally and longitudinally throughout the length of the frog to receive the rail, this channel being closed at the top by said top steel plate, and also being closed at the sides by the interposed supports or frame between the bottom plates and top plate. The bottom plates near their rear ends are provided with downwardly-projecting sharp spurs or projections *j*, which extend into the sleepers or ties when the frog is in position, and thereby assist in preventing longitudinal movement of the frog.

At its front end the frog is provided with one or more openings or slots on each side between top and bottom plates, in which the sliding clamp-blocks *l* are located. The blocks are so constructed at their inner ends that they will fit beneath the tread of the rail when moved in, and thereby prevent the frog being lifted off of the rail or tilted upwardly at either end, and are also so constructed, preferably by means of vertical serrations *p'*, which are adapted to engage the web of the rail, as to assist in preventing longitudinal movement of the frog on the rail. The blocks are of such length as to extend through their openings when pushed in their full extent and are so formed at their outer ends that they can be grasped to be moved in or out. The blocks are held in locking position by means of the bolts *m*, passed down through openings in the top and bottom plates and the blocks, and the blocks are provided with studs *n* on each side, which project into longitudinal slots in the sides of the openings in which the blocks move, whereby the blocks are allowed a free in-and-out movement, but complete withdrawal is prevented.

Each frog on its inner side is provided with an upwardly-projecting flange or lead *o'* extending from the lower end of the top plate upwardly along its inner edge and at the top or upper portion of said plate extending at a slight angle across the plate, so as to reach its upper end edge at a point a short distance in-

side of the longitudinal channel through the frog and of the inner side of the tread of the rail when the frog is in position, thereby leaving room for the flange of the wheel to drop
 5 from the inner side of said lead to the inner side of the tread of the rail. The outer side of the top plate is provided with the short upwardly-projecting flange or lead *p*, extending from the lower edge of the top plate upwardly
 10 along the outer edge thereof and ending a distance from the upper end of the top plate sufficient to allow the tread of the wheel to pass between its end and the guiding-lead on the inner side of the frog. The upper end of
 15 this short lead is curved slightly inwardly, as shown, so as to direct the wheel on the outer side of the rail inwardly toward the inner lead.

When it is desired to use this tool, the two
 20 clamping-blocks are drawn out and the tool is dropped upon the rail, so that the short lead will be on the outside and its long guiding-lead on the inside. The clamping-blocks are then forced in and secured. These wrecking-
 25 frogs are used in pairs—rights and lefts—so that each will have its short lead on the outside and the long lead on the inside. When the frogs have been secured in position, the derailed car or locomotive is drawn up the inclined top plates of the two frogs, one set of
 30 wheels passing up the inner side and guided by the inner long lead of one of the frogs, and the other set of wheels on the outside of the rails is drawn up the outer side of the frog on
 35 that side and is guided by the short lead of that frog, the long lead guiding the wheels by their flanges, so that the flanges will be moved laterally and dropped in proper position at the inner sides of the rails and the short lead
 40 engaging the flanges of the opposite wheels

and guiding the wheels laterally toward the inner lead, which directs them to the inner sides of the rails.

The plate of the short lead is for use in connection with "blind drivers."

45

What I claim is—

1. The wrecking-frog comprising the upwardly-inclined top surface with its guides, the longitudinal open channel in the bottom of the frog to receive the rail, the projections
 50 on the frog-bottom, for the purposes set forth, and the sliding clamps or blocks to engage the opposite sides of the rail beneath its tread and thereby prevent the frog moving up off of the rail.

55

2. The frog having an inclined top surface and guides, a longitudinal channel to receive the rail, the openings from the opposite sides of the frog into said channel, and the blocks, constructed substantially as set forth, slidable
 60 and loosely confined in said openings to move beneath or from the tread of the rail, for the purposes set forth.

3. A car-replacing frog having the longitudinal channel to receive the rail, the blocks
 65 extending into opposite sides of said channel and constructed to have a limited movement to slide beneath or from the tread of the rail and having the serrated inner ends to engage the rail-web, and means to lock the blocks
 70 at their inner position, substantially as described.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

WILLIAM HENRY WILMORE.

Witnesses:

F. HEIDELBERG,
 H. R. MORGAN.