

(No Model.)

2 Sheets—Sheet 1.

P. H. DURACK.

DEVICE FOR REPLACING DERAILED RAILWAY CARS.

No. 544,161.

Patented Aug. 6, 1895.

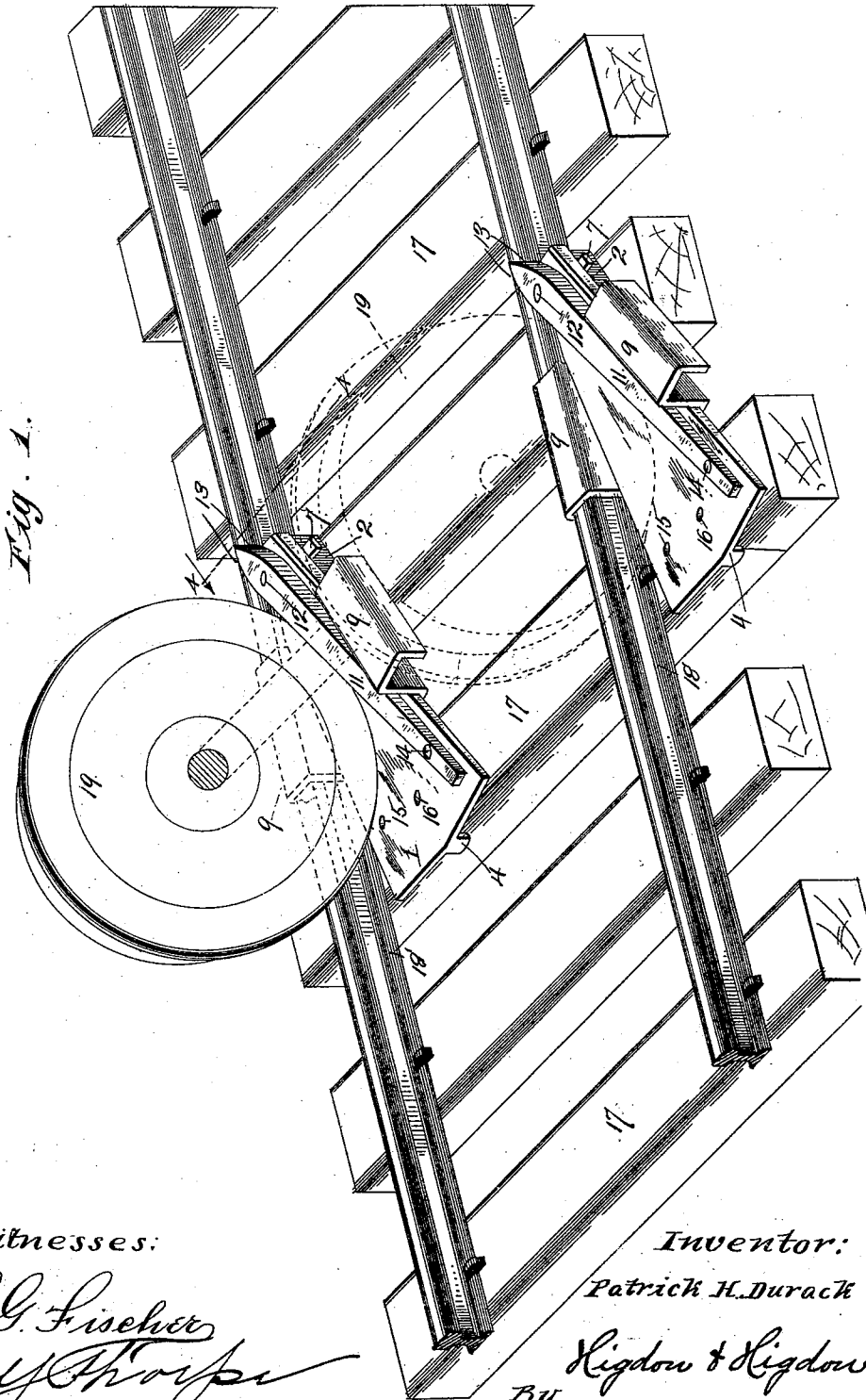


Fig. 1.

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(No Model.)

2 Sheets—Sheet 2.

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Fig. 2.

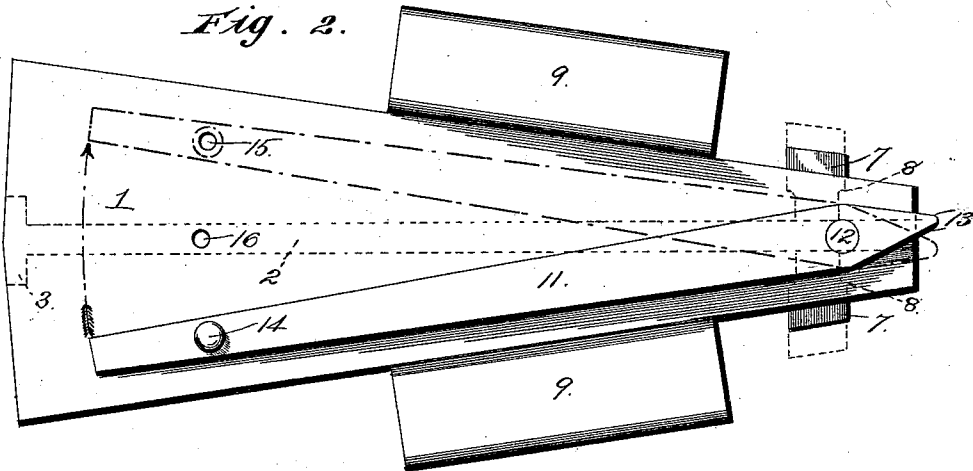


Fig. 3.

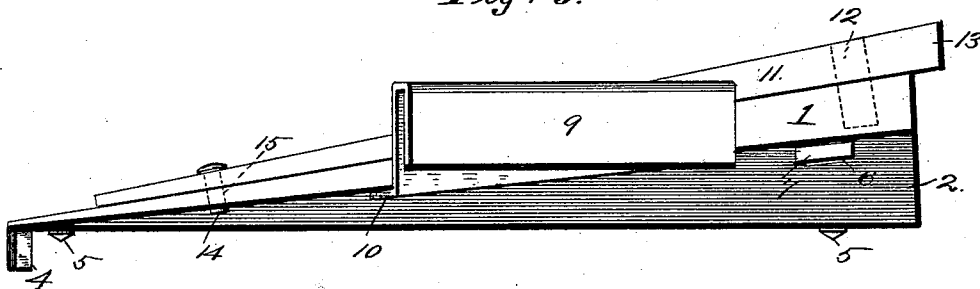
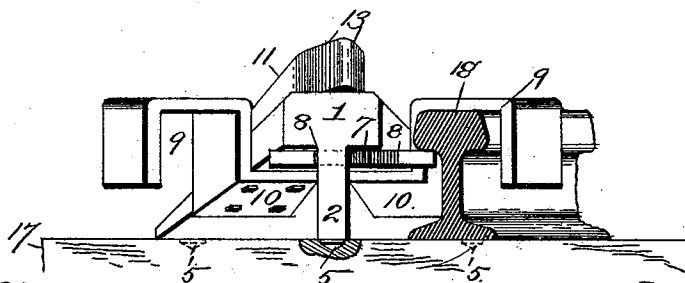


Fig. 4.



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UNITED STATES PATENT OFFICE.

PATRICK H. DURACK, OF PECOS, TEXAS.

DEVICE FOR REPLACING DERAILED RAILWAY-CARS.

SPECIFICATION forming part of Letters Patent No. 544,161, dated August 6, 1895.

Application filed April 5, 1895, Serial No. 544,581. (No model.)

To all whom it may concern:

Be it known that I, PATRICK H. DURACK, of Pecos, Reeves county, Texas, have invented certain new and useful Improvements in Devices for Replacing Derailed Railway-Cars, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part thereof.

My invention relates to improvements in that class of railway appliances known as "car-replacers" or "wrecking-frogs," and has for its object to provide an appliance of this character which may be employed advantageously at either side of a rail, and can be positively relied upon to elevate and guide derailed trucks back to their original position upon the rails.

A further object is to provide an appliance of this character which can be placed in or removed from operative position relative to the track-rails easily and expeditiously.

With these objects in view the invention consists in certain novel and peculiar features of construction and combinations of parts, as will be hereinafter described and claimed.

In order that the invention may be fully understood, I will proceed to describe it, with reference to the accompanying drawings, in which—

Figure 1 represents a perspective view of a portion of a railway provided in operative position with a replacing appliance embodying my invention. Fig. 2 is a top plan view, on an enlarged scale, of one of said car-replacers. Fig. 3 is a side elevation of the same. Fig. 4 is a sectional view taken on the line 4 4 of Fig. 1 and viewed in the direction indicated by the arrow.

I will first proceed to describe the construction of the car-replacer and then explain the position it must occupy to replace cars upon a track.

Referring now to the drawings, where similar numerals designate corresponding parts, 1 designates the base-plate, which tapers from its rear to its front end, in fact, in plan view approximates an isosceles triangle. This plate, also, from its rear end, which is comparatively thin, increases in depth to its front end. For convenience in handling, and to make it as light as possible consistent with strength, said plate is preferably formed with a depending rib 2, which extends longitudi-

nally and centrally of the plate. This rib tapers in thickness from its front toward its rear end, so that its under side shall lie in the same horizontal plane when in operative position as the under side of the rear end of said plate 1. Said plate and its depending rib are of such depth that when in operative position upon the ties the upper surface or tread of the plate shall extend in an inclined plane from its rear end upwardly to its front end, which will occupy a plane higher than the tread or upper surface of the contiguous track-rail, hereinafter to be referred to. Said rib 2, at its rear end, is preferably widened and formed with the depending flange or shoulder 4, and depending from said rib and the bottom of the plate near its rear end at suitable points are the pointed or sharpened dogs 5. Near its front end, below the plate 1, said rib is formed with an aperture 6, and adjustably engaging the same is a bolt 7. Said bolt is provided near its opposite ends with shoulders 8 to limit its adjustment and also to prevent its accidental disengagement from the said aperture. At each side of the plate 1 is a downwardly-disposed hook-arm 9, and said arms are provided at their lower ends with the inwardly-projecting flanges 10, which may be bolted or otherwise rigidly secured to the under side of said plate.

11 designates an adjustable tongue or lever, which is pivoted near its front end upon the upper side and near the front end of the plate 1, as shown at 12. Forward of said pivot said tongue or lever tapers, as shown at 13, to a point. Near its rear end it is provided with an aperture, which is adapted to register with one or the other of the apertures 15 or the central aperture 16, and to secure said lever at either of the points represented by said apertures in the plate 1 I employ a detachable pin 14. The apertures 15 are arranged, preferably, at equal distances from the central aperture 16.

To replace a car upon the track when it has slipped off the rails to the right, I preferably employ a pair of these replacers and locate one to the right of each track-rail, or, in other words, one at the inner side of a rail and the other at the outer side of the other rail, as shown at Fig. 1. The appliance is of such length, preferably, that it rests upon two cross-ties 17, and the depending flange or shoulder 4 fits snugly against the rear side of the con-

tiguous tie, as shown. When placed contiguous to the rail the hook-arm 9 at the corresponding side is fitted over the rail, which thus causes the contiguous inclined margin to extend parallel with the rail, and the tongue or lever, if the pin engage with the aperture 15 near the opposite margin of the plate, to converge forwardly with the track-rail, as shown clearly in Fig. 1. The other appliance is arranged in a similar manner, so that when both are placed in operative position the guiding tongues or levers 11 extend parallel with each other and converge forwardly with their respective rails, or the guiding tongue or lever of the replacer at the outer side of the track may be removed, if required, as it performs no function. It is preferably, however, secured in the position shown in Fig. 1, where it is entirely out of the way. To lock the replacers from any tilting movement, either lateral or longitudinal, the bolts 7 are now slid laterally until the ends engage under the heads or balls of the contiguous rails, as shown clearly in Fig. 4. To now replace the car upon the track, it is started forward and the wheels, coming in contact with the reduced or thin end of the replacer, ride easily and successively thereon. The flanges of the inner wheels now successively contact with the inclined tongue or lever of the inner or corresponding replacer, whereby said wheels and the wheels at the opposite side of the truck upon the outer replacer are deflected out of their direct course until they successively come opposite the pivots of said levers. By this time the flanges of the outer wheels have cleared the inner margin of the outer replacer and their tread-surfaces with the tread-surfaces of the inner wheels are above the corresponding track-rails 18. The continued forward movement of the car from this point is direct or parallel with the rails (owing to the bevel or taper at the front end of the lever extending parallel with said rails) until the front end of the plate is cleared and the inner wheels successively drop gently down upon the rail, the outer wheels having assumed their proper position upon the rails a moment or so before, as will be readily understood.

If when derailed the wheels move only a short distance from the rails, the tongues or levers may be arranged with the pins 14 engaging the central aperture 16, so that less friction will be engendered (as the angle will be less) and the trucks moved more easily to position.

To replace a car derailed at the opposite side of the track and moving in the same direction, the replacers are moved to the left of the contiguous rails and the tongues or levers 11 swung to the opposite side of the plates 1, as shown in dotted lines, Fig. 2, and secured by the pins 14, as before. The hook-arms, unemployed before, are now engaged over the rails. It is apparent, owing to this engagement, that the replacing appliances cannot

be laterally displaced by the pressure upon the guide tongues or levers, owing to this engagement, and they cannot be laterally tilted from the same for any cause, because the locking-bolts 7 engage the under side of the head or ball of the rails; also, that it cannot be moved forwardly, because of the flange or shoulder 4 bearing against the rear side of one of the ties and the pointed dogs embedding themselves in the ties under the pressure of the car.

This appliance, after the front truck is placed upon the rails, can be removed quickly and placed to receive the rear truck without stopping the car.

From the above description, taken in connection with the drawings, it will be apparent that I have produced an appliance for replacing cars upon a track which is simple, strong, durable, and inexpensive of construction, which is positive and reliable in operation, and may be easily conveyed from place to place.

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

1. A car-replacing appliance, comprising a plate whose side-margins converge and whose upper surface inclines upwardly from its rear to its front end, a tongue or lever pivoted near its front end upon and near the front end of said plate, a pin engaging an aperture in said tongue or lever near its rear end and adapted to engage one or another of a series of apertures in said plate, downwardly-disposed hook-arms secured to opposite sides of said plate, and one of them engaging a track-rail when in operative position, and an adjustable bolt carried at the front end of the plate and engaging the under side of the head of said track-rail, substantially as set forth.

2. A car-replacing appliance, comprising a plate whose side-margins converge and whose upper surface inclines upwardly from its rear to its front end, a tongue or lever pivoted near its front end upon and near the front end of said plate, a pin engaging an aperture in said tongue or lever near its rear end and adapted to engage one or another of a series of apertures in said plate, downwardly-disposed hook-arms secured to opposite sides of said plate, and one of them engaging a track-rail when in operative position, an adjustable bolt carried at the front end of the plate and engaging the under side of the head of said track-rail, a depending flange or shoulder at the rear end of said plate, and pointed dogs depending also from said plate, substantially as set forth.

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

PATRICK H. DURACK.

Witnesses:

L. B. SHOOK,
R. S. JOHNSON.