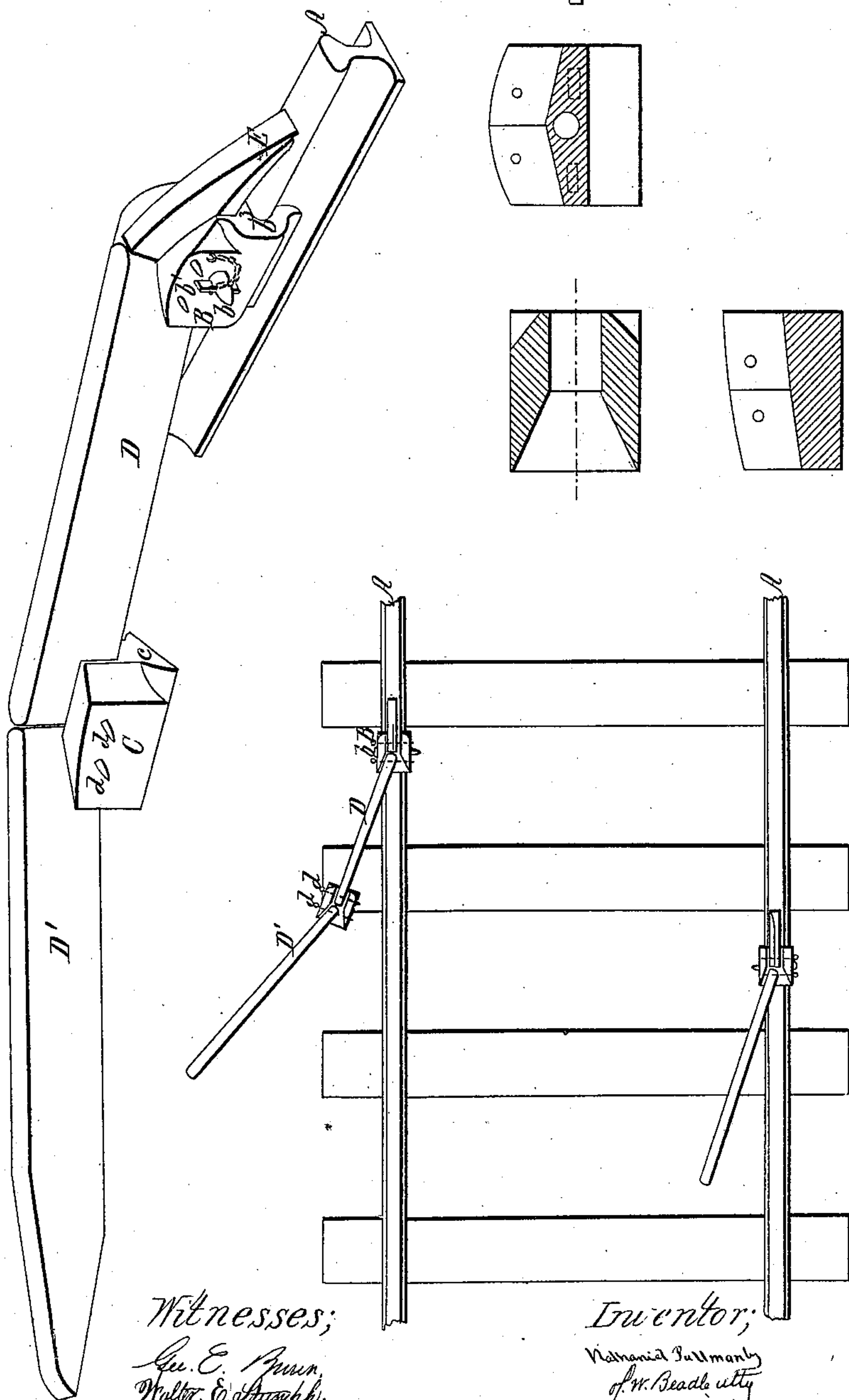


*N. Pullman,*

*Car Replacer,*

*N<sup>o</sup> 76,520.*

*Patented Apr. 7. 1868.*



*Witnesses;*  
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# United States Patent Office.

NATHANIEL PULLMAN, OF NEW OREGON, IOWA.

*Letters Patent No. 76,520, dated April 7, 1868.*

## IMPROVED CAR-REPLACER.

*The Schedule referred to in these Letters Patent and making part of the same.*

### TO ALL WHOM IT MAY CONCERN:

Be it known that I, NATHANIEL PULLMAN, of New Oregon, in the county of Howard, and State of Iowa, have invented a new and improved Device for Replacing Cars upon the Track; and I do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

This invention relates to a novel device for replacing cars upon the track, which consists, principally, in a new form of step or shoe, and also in a new arrangement for attaching the supplemental rails to the main track, as will be fully described hereinafter.

In the drawings, A represents the track proper, upon which it is desired to replace the cars.

B represents the shoe, which is constructed in two parts, as shown, being connected by means of the bolt  $b$ , which latter may be made of any proper form, and be secured in any proper manner. In this case, however, it is made round, and is secured in place by means of the key  $b^1$ , which passes through a slot in its end, as shown. One side of the shoe is provided with projections,  $b^2$ , which fit into corresponding sockets in the other side, a perfectly secure connection being thus made. The lower part of the shoe is constructed with the clamps  $b^3 b^3$ , of such form as to accurately fit the track-rail. The upper part is constructed with parallel sides upon the end which receives the short rail E, this arrangement being intended for the purpose of preventing the latter from moving to either side. Upon the other end, however, the sides diverge, as shown, to allow the rail D to move freely in either direction to a certain extent.

It will be also observed that the inner side of the shoe is made lower than the outer, this construction being necessary to allow the flange of the car-wheel to pass. It also gives the greatest strength to the outside, it being the part liable to the greatest strain.

The bottom of socket of shoe inclines in each direction at a proper angle to receive the supplemental rails D E in such manner that they rest firmly upon it. C represents a supplemental shoe or step, which is constructed with the base,  $c$ , the upper part being in all respects like the shoe B, excepting that the bottom is inclined in an upward direction, and toward the shoe B. It is essential that the shoe should be properly secured in some manner, either to a tie or to other timber, suitably placed. It may be provided with pointed pins, cast with it, or it may have pins driven in, and be fastened in that way. In this shoe the end of the rail D is firmly held by the parallel sides. D D' represent supplemental rails, the latter of which is tapered off to allow the car-wheel to mount upon it. These rails are provided with holes, (which are bevelled in each direction,) and are fastened to the shoes B C by means of the pins  $d$   $d$ , by which construction a certain amount of play is allowed in either direction. These pins are attached by means of chains and staples to the shoes, and thus are always retained in place, and cannot be lost. Both ends of the rail D and the upper end of the rails D' are rounded off upon their upper corners, in order to prevent all possibility of the flange of the car-wheel catching upon them. The lower corners, however, are left nearly square, in order to secure as much bearing-surface as possible upon the shoe. E represents the short rail, by means of which the cars are eased down on to the track.

It will be observed that the inside of the rail is chamfered off. This form is intended to prevent all possibility of the wheels jumping the track, for if the rail were straight upon this edge, the wheels would be extremely liable to strike upon it and mount over it, but by this construction the danger is avoided. This rail is held firmly in place, and prevented from moving laterally, by means of the sides of the shoe B, in which it snugly fits, it being also secured by a pin,  $d$ , in a similar manner to the other. It is thus rendered unnecessary to fasten this rail to the main track in any manner.

This device is made right and left, one part being designed for use upon one side of the track, and the other upon the other side, by which means each side can be used independently of the other. It often happens that this is desirable, hence a great objection arises to devices for this purpose, in which both sides are joined together.

For ordinary purposes, the rail D and supplemental shoe C may be dispensed with, the rail D' being attached directly to the shoe B, but in cases where the cars are off at some distance from the track it will be necessary to use both.

From this description, the operation of my device will be easily understood. When it is desired to use it



to replace cars off the track, the shoe B, having been separated, is placed upon the track and united by means of the key  $b^1$ , by which means it is firmly clamped to the rail. The supplemental rails are then attached, as described. The extension-rail D and shoe C may be used or not, as is necessary. If desired, the device upon one track may be placed in advance of the other, as they can be used independently of each other. An extremely simple and efficient arrangement is thus provided. It may be placed in small compass, and easily carried, and it cannot get out of order.

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

1. The shoe B, constructed in two parts, with parallel and diverging slide, and having clamps  $b^2$  and bolt  $b$ , substantially as described.

2. The shoe C, constructed with parallel and diverging sides, the outer of which is higher than the inner, as and for the purpose described.

3. The combination of shoes B C, rails D D', E, when constructed as described, adapted to the rails A A, and operated substantially as set forth.

This specification signed and witnessed this ninth day of March, 1868.

N. PULLMAN,

Witnesses:

M. W. BEADLE,  
E. B. BEADLE,