No. 757,902. PATENTED APR. 19, 1904.

C. A. FISCHER.

CAR REPLACER.

APPLICATION FILED AUG. 28, 1903.

NO MODEL. 2 SHEETS—SHEET 1.

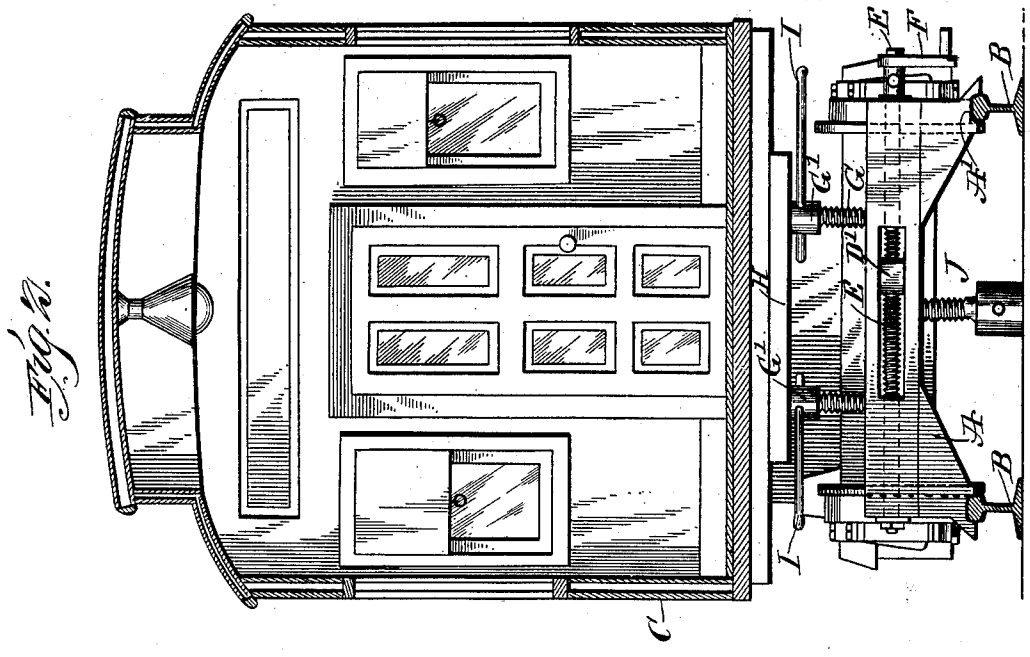

Fig. 1.

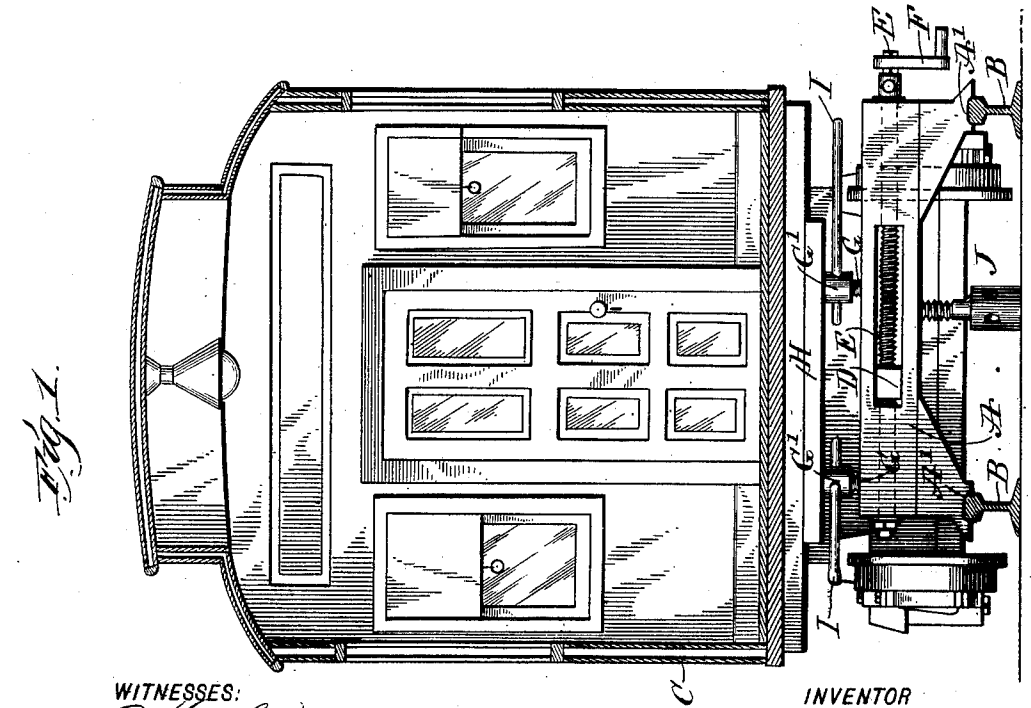

Fig. 2.

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NO MODEL. 2 SHEETS—SHEET 2.

Fig. 3.

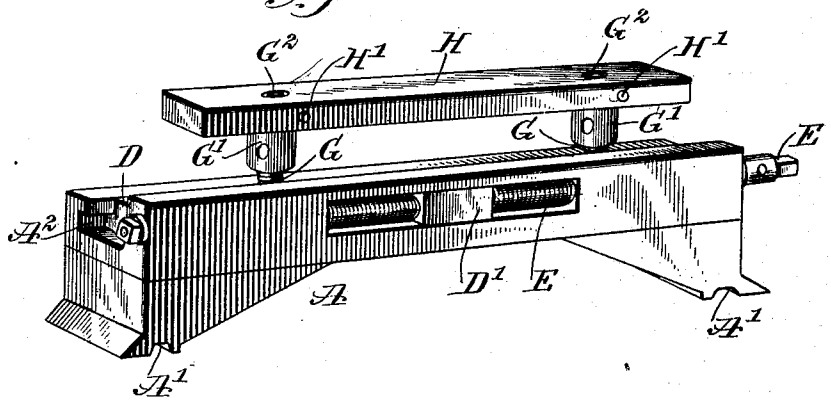
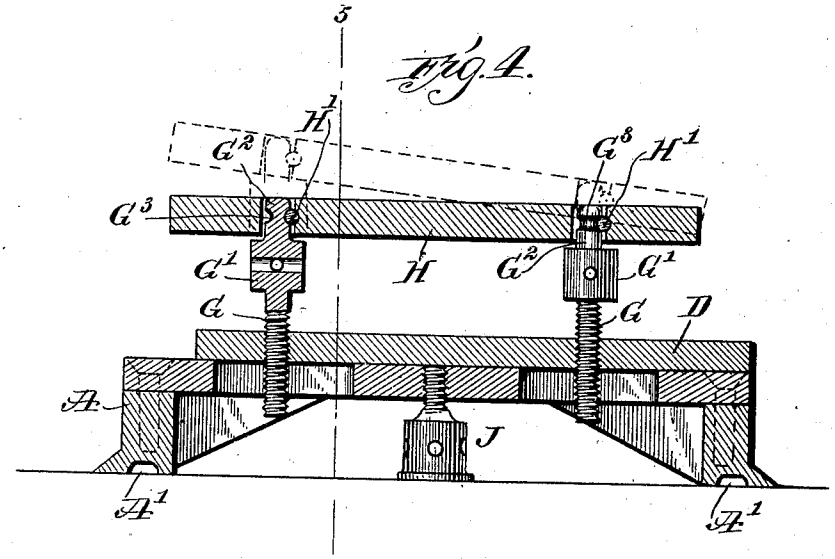
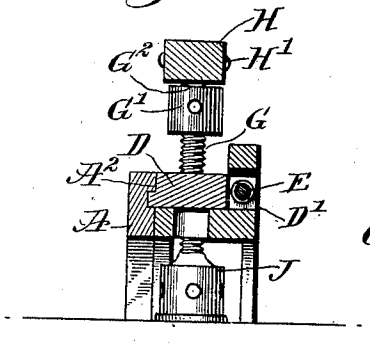


Fig. 4.



5 Fig. 5.



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No. 757,902. Patented April 19, 1904.

UNITED STATES PATENT OFFICE.

CHRISTIAN A. FISCHER, OF GRAND FORKS, NORTH DAKOTA.

CAR-REPLACER.

SPECIFICATION forming part of Letters Patent No. 757,902, dated April 19, 1904.

Application filed August 28, 1903. Serial No. 171,091. (No model.)

To all whom it may concern:

Be it known that I, CHRISTIAN A. FISCHER, a citizen of the United States, and a resident of Grand Forks, in the county of Grand Forks and State of North Dakota, have invented a new and Improved Car-Replacer, of which the following is a full, clear, and exact description.

The invention relates to railway rolling-stock; and its object is to provide a new and improved car-replacer which is simple and durable in construction, very effective in operation, easily applied and manipulated, and arranged to permit of quickly and conveniently replacing derailed railroad-cars, street-cars, and other vehicles.

The invention consists of novel features and parts and combinations of the same, as will be more fully described hereinafter and then pointed out in the claims.

A practical embodiment of the invention is represented in the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a cross-section of a derailed car, showing the improvement applied. Fig. 2 is a like view of the same, showing the car replaced. Fig. 3 is a perspective view of the improvement. Fig. 4 is a longitudinal section of the same, and Fig. 5 is a transverse sectional elevation of the same on the line 5 5 of Fig. 4.

The frame or support A of the car-replacer is arranged to extend across the rails B B, and the said frame is provided at its bottom with longitudinal grooves A′, fitting the heads of the rails B B on which the car C is to be replaced. The frame A is provided on its top with a transverse guideway A^2 for a carriage D to slide in, and on the said carriage is formed or secured a nut D′ in which screws a screw-rod E, extending transversely parallel to the carriage and mounted to turn in suitable bearings in the frame A. One outer end of the screw-rod E is made polygonal for the reception of a suitable crank or other tool F under the control of the operator to enable the latter to turn the said screw-rod, so as to impart transverse sliding movement to the nut D′ and its carriage D. Now by turning the screw-rod E in one direction the carriage D is moved, say, to the right, and by turning the screw-rod in the opposite direction the said carriage moves to the left.

In the carriage D screw upright screw-jacks G, supporting a cross-bar H, adapted to engage the under side of the car C or the under side of the car-truck frame, and by screwing one screw-jack G farther out than the other an inclination may be given to the cross-bar H to fit the car-body or car-truck frame in case the same is standing derailed in an inclined position. Each screw-jack G is provided with a head G′, having radial apertures for the reception of bars I, adapted to be manipulated by the operator to turn the screw-jacks so as to screw the same up or down, as the case may be. From the top of the head G′ of each screw-jack G extends a pin G^2, loosely fitting an aperture in the cross-bar H, to allow the cross-bar to assume an inclined position, as previously mentioned and indicated in dotted lines in Fig. 4. In order to prevent the cross-bar H from accidental disengagement from the pin G^2, locking-pins H′ are provided, held in the cross-bar H and extending into annular grooves G^3, formed in the pins G^2. (See Fig. 4.)

In using the device the frame A is placed in position on the rails B (see Fig. 1) under the derailed car C, and then the screw-jacks G are screwed upward to engage the cross-bar H with the car-body or the truck-frame, and then on a further upward screwing of the screw-jacks the car or truck is lifted upward until the bottoms of the flanges of the car-wheels are on or slightly above the tops of the rails B, and then the operator turns the screw-rod E so as to move the carriage D, screw-jacks G, cross-bar H, and car-truck transversely until the car-wheels engage or are over the heads of the rails B, after which the screw-jacks G are turned in the reverse direction—that is, screwed downward—to allow the car-wheels to firmly engage and rest on the rails B. Thus by the arrangement described the car or truck-frame is first raised,

then shifted transversely, and finally lowered to bring the car-wheels in proper position on the track-rails B.

If desired, a screw-jack J may be connected with the middle portion of the frame A, so as to strengthen the same, as indicated in the drawings.

It will be seen that the device described may be used for lifting cars off the rails, and in this case the operation above described is reversed.

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

1. A car-replacer comprising a frame, a carriage mounted to slide transversely thereon, and upright jacks screwing in the carriage, as set forth.

2. A car-replacer comprising a frame, a carriage mounted to slide transversely thereon, upright screw-jacks screwing in the carriage, and a cross-bar loosely connected with the upper ends of the said screw-jacks, as set forth.

3. A car-replacer comprising a frame for connection with the rails, to hold the frame against transverse movement, the frame being provided with a transverse guideway, a carriage mounted to slide in the said guideway, manually-controlled means for imparting a transverse-sliding movement to the said carriage, screw-jacks screwing in the carriage, and a cross-bar loosely connected with the upper ends of the said screw-jacks, as set forth.

4. A car-replacer comprising a frame having longitudinal grooves at the bottom, for engagement with the rails, to hold the frame against transverse movement, the frame being provided in its top with a transverse guideway, a carriage mounted to slide transversely in the said guideway, and provided with a nut, a manually-controlled screw-rod, mounted to turn in the said frame and screwing in the said nut, screw-jacks screwing in the said carriage and provided with heads, pins extending from the heads, and a cross-bar having apertures into which the said pins fit loosely, as set forth.

5. A car-replacer comprising a frame having longitudinal grooves at the bottom, for engagement with the rails, to hold the frame against transverse movement, the frame being provided in its top with a transverse guideway, and provided with a nut, a manually-controlled screw-rod, mounted to turn in the said frame and screwing in the said nut, screw-jacks screwing in the said carriage and provided with heads, pins extending from the heads, a cross-bar having apertures into which the said pins fit loosely, and means, substantially as described, for connecting the cross-bar with the said pins, to prevent accidental detachment of the cross-bar from the pins, as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CHRISTIAN A. FISCHER.

Witnesses:
B. AUGER,
Mrs. S. GRAHAM.