(No Model.)

C. O. KELLY & J. E. LEE.

CAR REPLACER.

No. 369,530. Patented Sept. 6, 1887.

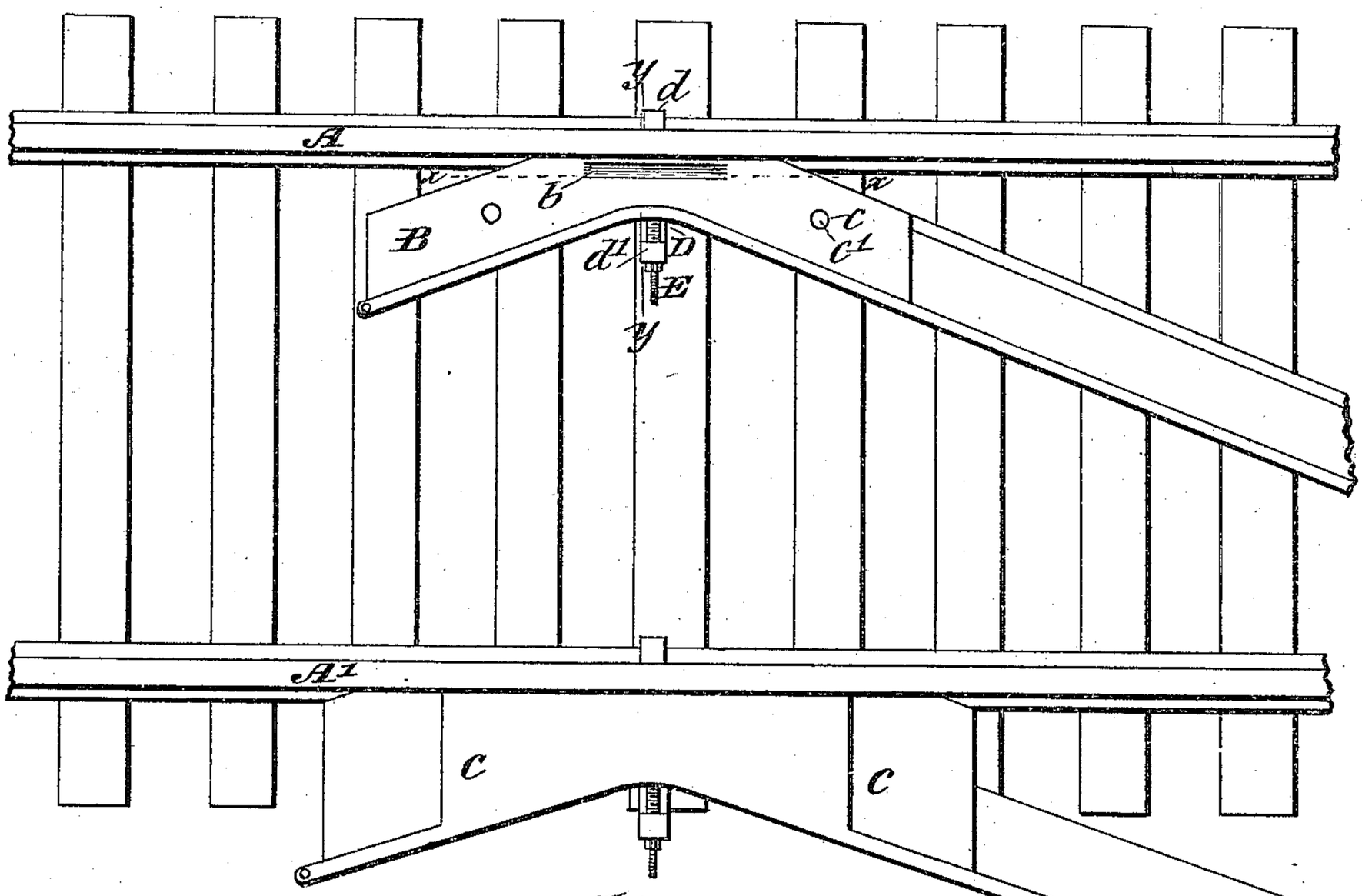

Fig. 1.

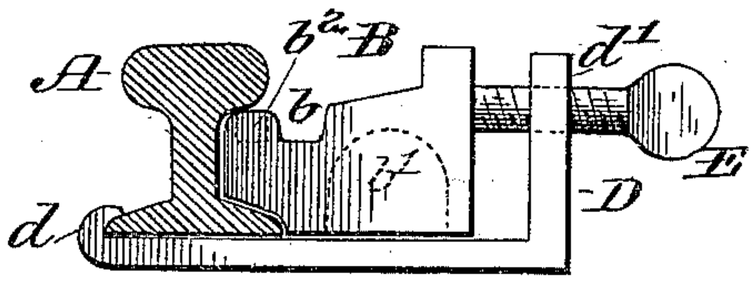

Fig. 3.

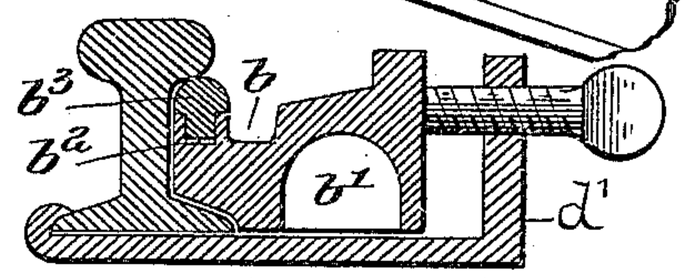

Fig. 5.

Fig. 4.

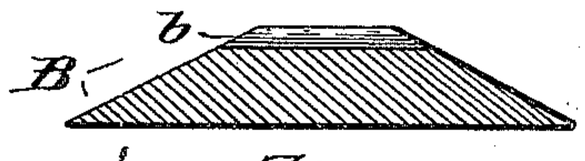

Fig. 2.

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CHARLES O. KELLY AND JAMES E. LEE, OF BALTIMORE, MARYLAND, ASSIGNORS OF ONE-THIRD TO HENRY ST. JOHN SHEPHERD, OF MARTINSBURG, WEST VIRGINIA.

CAR-REPLACER.

SPECIFICATION forming part of Letters Patent No. 369,530, dated September 6, 1887.

Application filed May 18, 1887. Serial No. 238,656. (No model.)

To all whom it may concern:

Be it known that we, CHARLES O. KELLY and JAMES E. LEE, citizens of the United States, residing in the city of Baltimore, in the State of Maryland, have invented a new and useful Car-Replacer, of which the following is a correct description.

In United States Patent No. 309,230, which was issued to us on the 16th day of December, 1884, we described an apparatus for restoring to its proper position upon the track of a railway a locomotive or a car which has been accidentally removed therefrom, such apparatus consisting, essentially, of a double-inclined car-lifter, which is placed outside the track, but contiguous to the rail, and a double-inclined "replacer," which is placed between the track-rails and is applicable to either of them, the two distinct parts being arranged coincidently and the function of the lifter being to elevate one of the wheels of the locomotive or car, while the function of the replacer is to engage the flange of the opposite wheel of such locomotive or car and force it outwardly toward the rail, suitable detachable lifting-pins being provided upon the face of such replacer to elevate the wheel at the proper moment to a position from which in falling it will resume its place upon the rail.

The use of the apparatus thus constructed and provided with suitable appliances for prolongation of the lifter and the replacer, and for securing the same in position for operation, has been attended with results which in the main have been entirely satisfactory. It has been found, however, that greater facility in use and greater certainty in operation are assured through certain modifications in the construction of the part which in the patent referred to is designated as the "replacer," in connection with certain other parts which have relation thereto.

The invention consists in a double-inclined car-replacer which has a longitudinally straight side, which is of such conformation vertically as to adapt it to fit the recess between the lower surface of the tread and the upper surface of the flange or base of the track-rail, and which in its top portion is provided with a longitudinal groove which is parallel with the straight side of the replacer and with the track-rail.

The invention consists, also, in a double-inclined car-replacer which has a longitudinally straight side, which is of such conformation in a vertical plane as to adapt it to fit the recess between the bottom of the tread and the top of the flange of the track-rail, and which in its top, along one side thereof and directly under the tread, is provided with detachable bearing-pins.

The invention consists, also, in various novel combinations of elements, as will be hereinafter described and claimed.

In the drawings, Figure 1 is a top plan view representing a section of a railway which is provided with our improved car-replacing apparatus. Fig. 2 represents a longitudinal vertical section of the replacer proper on the line *x x* of Fig. 1. Fig. 3 represents a transverse vertical section on the line *y y* of Fig. 1. Fig. 4 represents bearing-pins detached; and Fig. 5 is a transverse section, similar to Fig. 3, and like it drawn to an enlarged scale, showing the application of the replacer to a rail of greater vertical extent.

As seen in Fig. 1, A A′ are the track-rails; B, the replacer; C, the lifter; D, the clamping-plate, provided with the upturned engaging-hook *d*, such plate extending underneath the rail and underneath the replacer or the lifter, and being secured in position by the engagement of the set-screw E with the vertical flange *d′* of the clamping-plate and with the replacer or lifter, and by the engagement of the hook *d* with the flange of the track-rail. In the replacer *b* is the longitudinal groove to receive the flange of the wheel as the tread thereof passes from the top of the detachable lifting-pins *c′* in the orifices *c* to the top of the track-rail A or A′. *b′* is a recess or cavity which may be formed in the bottom surface thereof to render the replacer less heavy without diminishing its strength. b^2 are orifices to receive bearing-pins b^3, to engage the lower surface of the tread.

It will be understood that, owing to the varying dimensions of track-rails, a replacer of

given dimensions would not fit rails of dissimilar vertical extent, and that through the provision of the series of marginal orifices b^2 and of the bearing-pins b^3, which, as seen in Fig. 4, may be of various dimensions, a single replacer may be adapted to the lateral recess of all the various patterns of T-rails now manufactured.

Having described our invention, we claim—

1. A double-inclined car-replacer which has a longitudinally straight side, which is of such conformation vertically as to adapt it to fit the recess between the lower surface of the tread and the upper surface of the flange of the track-rail, and which in its longitudinally central double-inclined top portion is provided with a longitudinal groove which is parallel with the straight side of the replacer.

2. A double inclined car-replacer which has a longitudinally straight side, which is of such conformation in a vertical plane as to adapt it to the flange and the body of the track-rail, and which is provided with a series of marginal detachable bearing-pins.

3. A double-inclined car-replacer which has a longitudinally straight side, which fits the side of the track-rail, and which is provided with a longitudinal groove and with a series of marginal detachable bearing-pins.

4. A double-inclined car-replacer which has a longitudinally straight transversely-curved side, which corresponds to the curvature of the track-rail, and which is provided upon its top surface with a series of detachable lifting-pins, a longitudinal groove, and a series of detachable bearing-pins.

5. The combination, with the rail A, of the replacer B, provided with longitudinal groove b, and with the two series of orifices c and b^2, to receive, respectively, the lifting-pins c' and the bearing-pins b^3.

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