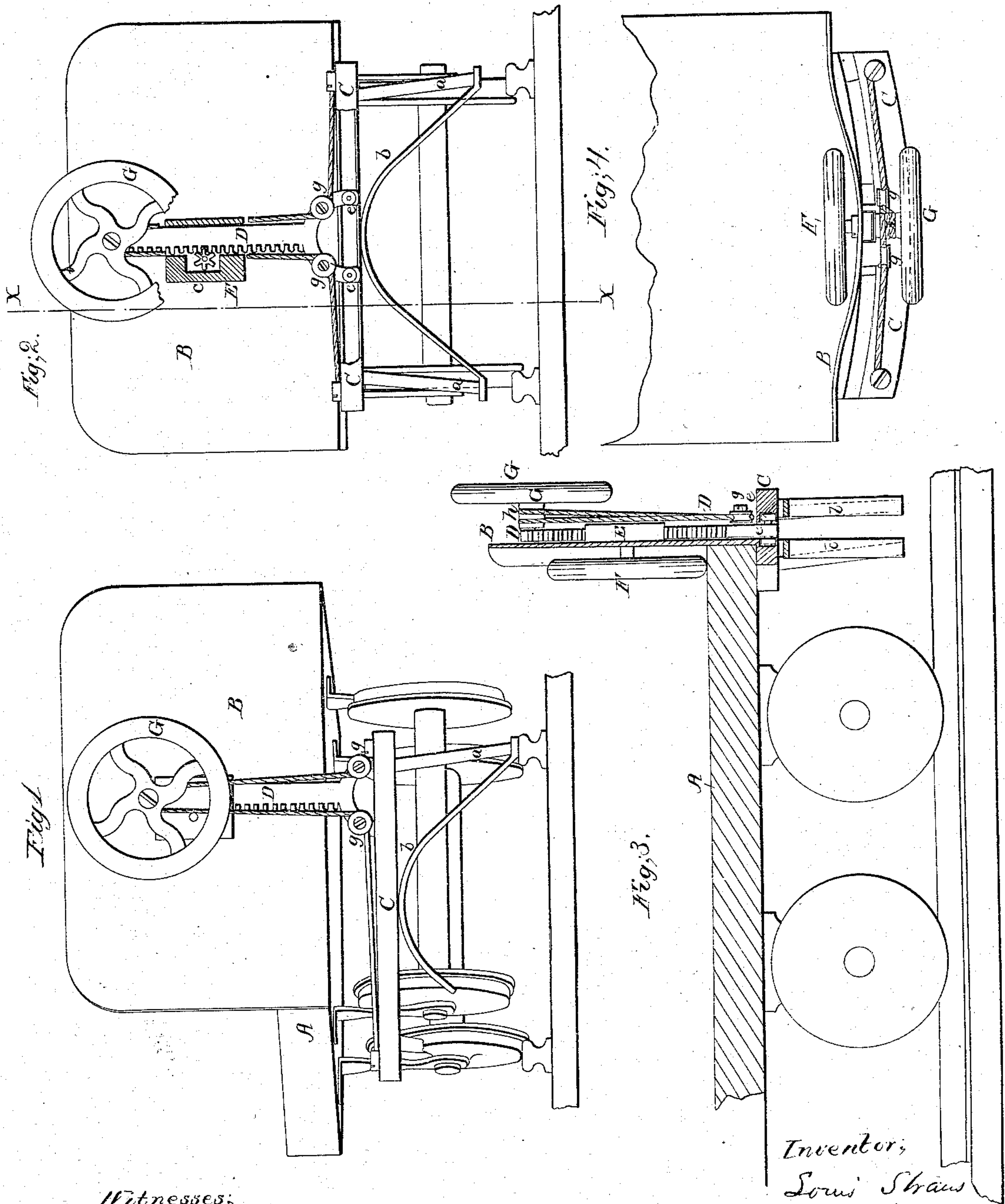


I. Straus.
Car Replacer.

N^o 70,375.

Patented Oct. 29, 1867.



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LOUIS STRAUS, OF LOUISVILLE, KENTUCKY.

Letters Patent No. 70,375, dated October 29, 1867.

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, LOUIS STRAUS, of Louisville, in the county of Jefferson, and State of Kentucky, have invented a new and improved Mode of Replacing Cars and Locomotives upon the Track; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings making a part of this specification, in which—

Figure 1 is a front elevation, showing my invention applied to one end of the platform of a car, which is supposed to be partly off the track.

Figure 2 is a front view of the same parts, partly in section, representing the car upon the track.

Figure 3 is a longitudinal section, taken in the vertical plane indicated by red line *x x* in fig. 2.

Figure 4 is a top view.

Similar letters of reference indicate corresponding parts in the several figures.

This invention relates to a new and improved contrivance which is applicable to street and steam-cars and locomotives; and which is designed for replacing them upon their track should they run off from accident or other cause.

The nature of my invention consists in a segment-shaped stool, in combination with a laterally movable rack, applied to one end of a car or a locomotive, and so constructed that one person can, with very little expenditure of time and labor, raise one end of said car or locomotive and move it upon its track, as will be hereinafter described.

To enable others skilled in the art to understand my invention I will describe its construction and operation.

In the accompanying drawings A represents the body of a street car, and B is the "dash-board" applied to one end of it. C represents a horizontal bar, bent in the form of a segment, and mounted upon legs *a a*, which latter are prevented from spreading by means of the brace *b*. This constitutes a stool, upon which one end of the car is supported and moved, as will be hereinafter explained. In constructing the curved bar C of the stool, some reference must be had to the length of the car to which it is to be applied, so that said bar C will be curved concentric, or nearly so, to the centre of motion of the car, if the latter be moved around upon one pair only of its wheels. The distance between the legs of said stool should be about equal to the gauge of the said track, so that said legs will rest either between or on top of the rails, or on the outside thereof. It is desirable to have a firm base-support for the stool, and for this reason the legs of this stool may rest upon the sleepers or rails of the track. In the upper side of the curved bar C, and extending in a direction with the length thereof, is an inverted T slot for receiving the lower forked end of a vertical rack D, the teeth of which engage with a pinion, *c*, which has its bearings in a guide-box, E, secured to the dash-board B, as shown in fig. 2. On the sides of the lower or forked ends of the rack D, anti-friction rollers *e e* are applied in the T-shaped slot, the object of which is to allow the rack to be moved back and forth from one end to the other of the said slot with as little friction as possible. The upper portion of said rack passes through the guide-box E, so that by turning the hand-wheel F, which is keyed on the inner end of the shaft of pinion *c*, this end of the car can be raised free from the ground, as shown in fig. 1. By turning said hand-wheel in an opposite direction the car will be brought down again upon the ground, or upon its rails, and the stool elevated free from the latter, as shown in figs. 2 and 3. In practice a pawl, or a pawl and ratchet, will be employed for keeping the rack in the desired positions after adjustment. It will be seen that when the car is raised at one end it will be supported upon the stool-bar C by means of rollers or wheels, so that very little power will be required to move said end laterally and horizontally over the rail track, so that when it is lowered again the car will be placed properly upon the track. In order to facilitate the lateral movement of the car to place it upon its track, two pulleys, *g g*, are applied to the rack D, near its supporting-bar C, under which chains pass, which are suitably secured to this bar C, near its extremities, and which are carried up and passed around a drum, *h*, to the shaft of which a hand-wheel, G, is keyed, as shown in figs. 1, 3, and 4. By this arrangement a person standing upon the platform of the car, near the two wheels F and G, can raise one end of this car so that its wheels will be above the plane of the rail track: after which such person can move the car around and bring its wheels directly over the rails, so that when the car is lowered again its wheels will all be in proper place upon the rails. The hand-wheel G, and ropes or chains for moving the car laterally, may in some instances be

dispensed with, and the car moved in a lateral direction by manual power, applied in any other convenient manner.

I do not confine my invention to the precise construction of the devices herein described, as other plans, equivalents of these devices, may be adopted without departing from the principle of the invention.

For cars which have no dash-boards or platform-guards, the lifting-device may be secured by clamps or otherwise to the platforms or ends of the cars.

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

1. The combination of a lifting-device, with a stool-support attached, so applied to the end of a car or locomotive as to admit of the replacement of the same upon the track, substantially as described.

2. The slotted stool-bar C and travelling rack D, in combination with a pinion spur-wheel *c* and hand-wheel F, substantially in the manner and for the purposes described.

3. The manner described and shown of attaching the rack D to the stool-bar C, for the purpose specified.

4. In combination with a device for lifting one end of a car, I claim a device by which such end, while elevated, can be moved laterally, substantially as described.

LOUIS STRAUS.

Witnesses:

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