

J. J. HAMILTON.
Car-Jack.

No. 222,492.

Patented Dec. 9, 1879.

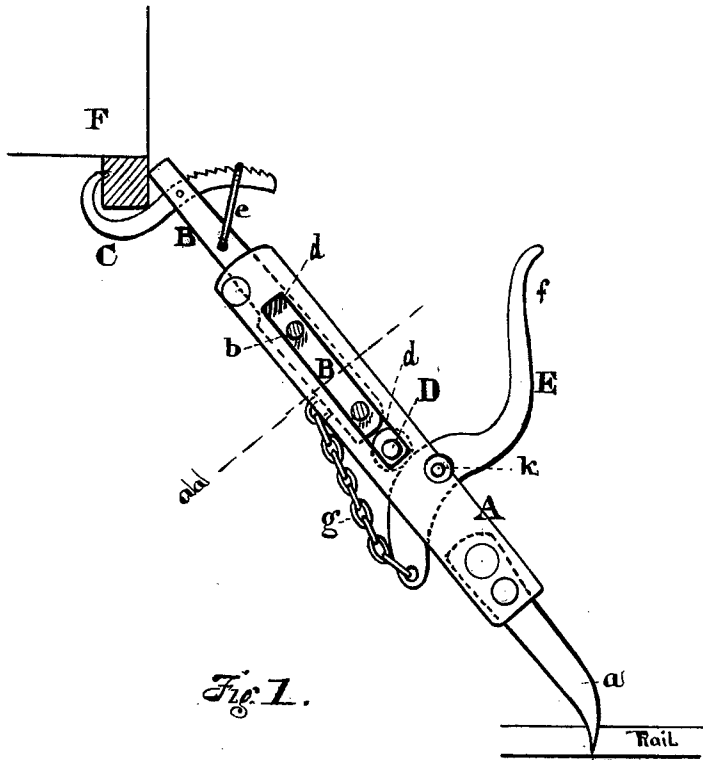


Fig. 1.

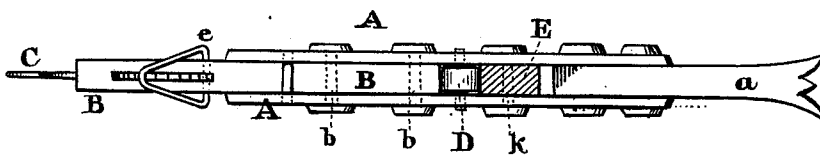


Fig. 2.

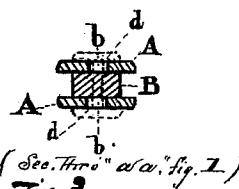


Fig. 3.

Witnesses.
H. Selden
Thomas Carr.

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By E. Thurston atty in fact

UNITED STATES PATENT OFFICE.

JOHN J. HAMILTON, OF EUREKA, ILLINOIS, ASSIGNOR OF ONE-HALF OF
HIS RIGHT TO JOHN W. STONE, OF SAME PLACE.

IMPROVEMENT IN CAR-JACKS.

Specification forming part of Letters Patent No. **222,492**, dated December 9, 1879; application filed
October 4, 1879.

To all whom it may concern:

Be it known that I, JOHN J. HAMILTON, of Eureka, in the county of Woodford, in the State of Illinois, have invented an Improvement in Car-Jacks; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the annexed drawings, making a part of this specification, in which like letters of reference refer to like parts, and in which—

Figure 1 represents a side elevation of the car-jack at work; Fig. 2, a rear or edgewise view, with lever shown cut off or in section; Fig. 3, cross-section on line *a a*, Fig. 1.

This invention consists of a sliding extension-bar, operated upon by an eccentrically-bearing lever, which projects said bar against the rear part of a car in the same line as the main or foot bar, in which said extension-bar slides and in which said lever is pivoted. Said extension-bar is provided at its upper end with a clasp-hook or adjustable clamp to secure the head of the bar to the rear sill of the car. A friction-roller is placed between said bar and the operating-arm of the lever, and the latter is pivoted in the outer or rear edge of the main or foot bar, out of the line of the direction of the extension-bar.

The point of the working end of the lever is connected, by means of a chain or jointed connection, with said extension-bar, to serve as a fulcrum to draw up the main or foot bar to the extension-bar at each downward motion of said lever at each remove of the car.

One of the forms in which I construct this jack is as follows: A represents the main or foot bar, having the usual fork *a*, to clasp the car-rail; B, the sliding extension-bar, moving in a slot or space within the bar A, also confined to said end motion by means of lugs *b b*, projecting from said bar into the slots *d d* on either side of the main bar A, which latter bar is composed of two side pieces connected by bolts and confining the extension-bar B between them, but allowing of end motion, as said. Said extension-bar B has pivoted to its free extremity a clamping-hook, C, adjustable at different angles, to clasp the rear sill of a car and be held in such position by means of a link, *e*, or similar device, pivoted to the bar B below the hook-pivot, and engageable with the serrated arm of said hook in the rear of the bar B.

D is the friction-pulley, placed between the

said bar B and the curved arm of the lever E, the spindles of which slide in the lateral slots, *d d*, in the side pieces of main bar A; E, the operating-lever, pivoted in the rear edges of the main bar A in such a mode that the strongly-curved operating-arm of said lever will have good propulsive power upon the friction-pulley D. The point of the shorter arm of said lever is connected by chain *g* with the extension-bar B, to cause the main bar to "walk"—i. e., that the downward throw of this arm of the lever is checked by the chain, so as to raise the pivot of the lever, and with it the bar A.

The friction-roller may be made independent, or be attached by means of straps to the extension-bar B.

The advantages of this car-jack are as follows: First, the hook C fastens the jack to the car, so that much trouble in keeping the jack up to the car is obviated; second, the chaining of the extension-bar to the lever draws the foot-bar up to its place without other manipulation; third, the pivoting of the lever out of the line of propulsion of the extension-bar, in combination with the cam-like surface of the bearing-arm of the lever, confers extra advantages, and, in connection with friction-roller placed between the lever and extension-bar, greatly helps the action of such levers on extension-bars; fourth, obviating all damage to the car (by abrasion of the wood-work, &c.,) by doing away with the common sharp-pointed head of the propulsion-bar of the common jack, and substituting blunt end and a claw-hook, C, and clamp *e*.

What I claim as my invention is—

1. In a car-jack, a freely-pivoted hook, C, as constructed and arranged for engagement with link *e*, pivoted below it in the usual extension-bar B, as constructed.

2. In a car-jack having sliding extension-bars A B, the combination of the swinging clamping-hook C and swinging hook-detent *e* with the upper bar, B, having the friction-roller D thereon, and cam-lever E, attached by chain *g*, with main bar, A, all arranged as specified.

In testimony that I claim the foregoing improvement in car-jacks I have hereunto set my hand.

Witnesses: JOHN J. HAMILTON.

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