(No Model.)

L. HELLER.

Lever for Moving Cars.

No. 241,011. Patented May 3, 1881.

Fig. 1.

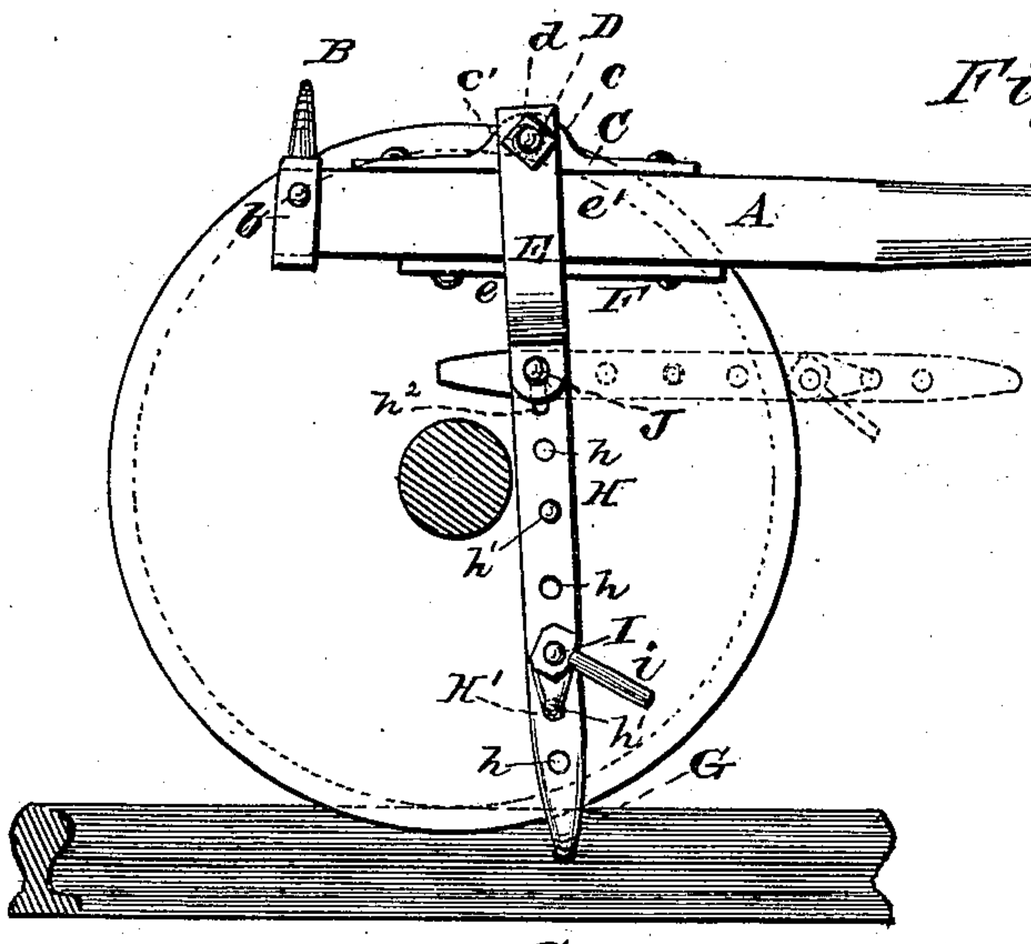


Fig. 2.

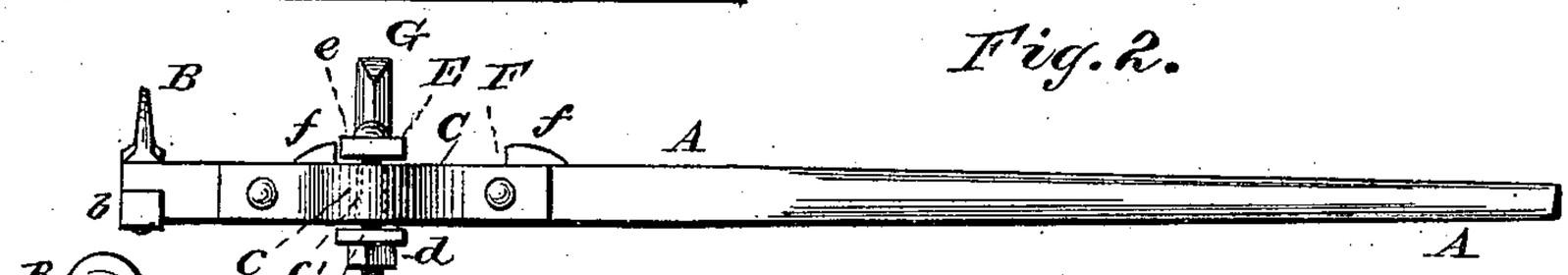


Fig. 3.

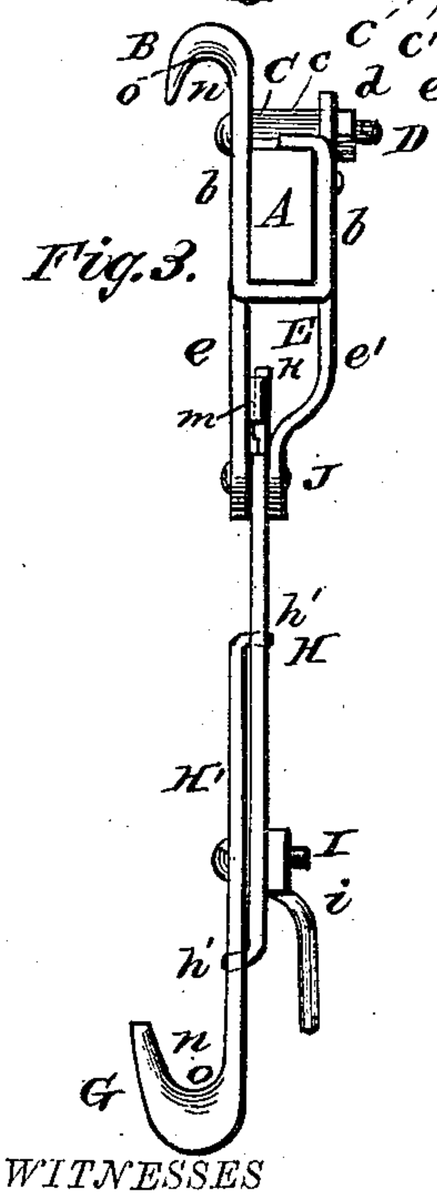


Fig. 4.

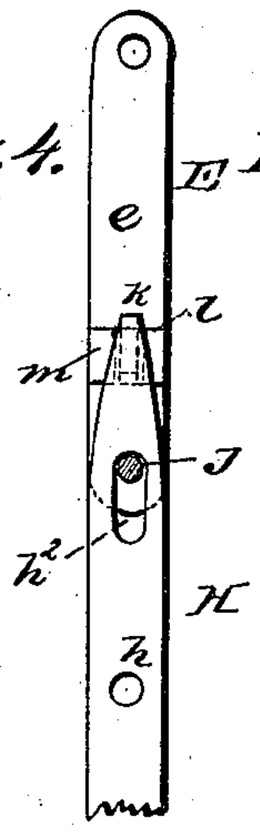


Fig. 5.

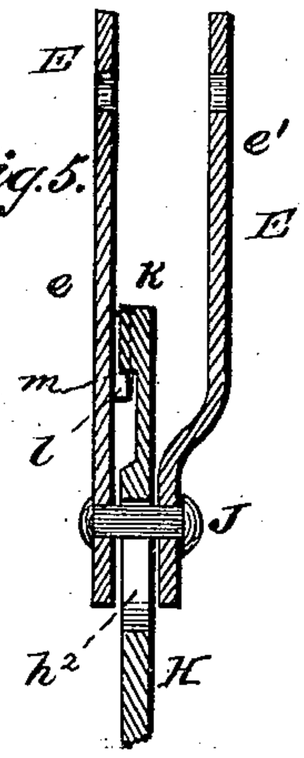


Fig. 6.

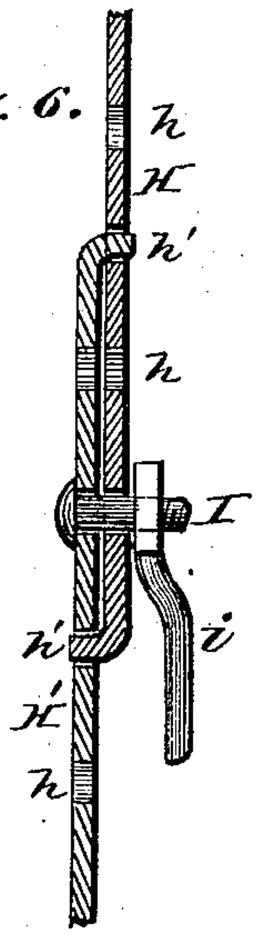
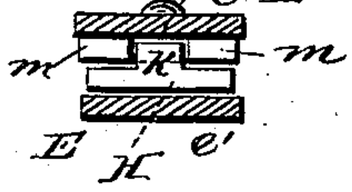


Fig. 7.



WITNESSES

Fred. L. Dieterich.

P. C. Dieterich.

By his Attorney

INVENTOR

Levi Heller.

De Witt C. Allen.

UNITED STATES PATENT OFFICE.

LEVI HELLER, OF SAYBROOK, ASSIGNOR OF ONE-HALF TO DAN B. HARWOOD, OF BLOOMINGTON, ILLINOIS.

LEVER FOR MOVING CARS.

SPECIFICATION forming part of Letters Patent No. 241,011, dated May 3, 1881.

Application filed March 22, 1881. (No model.)

To all whom it may concern:

Be it known that I, LEVI HELLER, a citizen of the United States, residing at Saybrook, in the county of McLean and State of Illinois, have invented certain new and useful Improvements in Levers for Moving Cars; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters or figures of reference marked thereon, which form a part of this specification.

My invention relates to certain new and useful improvements in the class of levers for moving cars that are adapted to be applied directly to the wheels thereof; and the invention consists in novel features of construction and combination and arrangement of parts, all as will be hereinafter fully described, and specifically pointed out in the claims.

Referring to the accompanying drawings, Figure 1 represents my improved lever as applied to a car-wheel. Fig. 2 is a top or plan view. Fig. 3 is an end elevation; and Figs. 4, 5, 6, and 7 are detail views of my invention.

In the drawings, A represents the lever, having attached at the extreme or larger end thereof a hook, B, connected to or formed integral with a strap, *b*, which passes nearly around and protects the end of the lever A, said hook B projecting above said lever, with its throat or concave portion facing downward.

C represents a metallic plate secured on top of the lever A a short distance back of the hook B, said plate having an enlarged portion, *c*, provided with a transverse opening, *c'*, for the reception of a bolt, D, upon which the upper ends of a bifurcated metallic strap passing on opposite sides of the lever A are pivoted or journaled, and secured thereon by a nut, *d*. This bifurcated strap is limited in its forward and backward movement by a metallic plate, F, secured to the under side of said lever A, and having lateral lugs or projections *f f* near the ends thereof, with which the portion *e* of the strap E engages, as clearly shown in Fig. 2, the freedom of motion of said strap being toward the small end of the lever, for the purpose of obtaining greater leverage upon the car-wheel.

G represents a hook, the shank portion of which is made in two sections, H H', each of which is provided with a series of adjusting-holes, *h*. These sections are secured together by a bolt, I, and thumb or hand nut *i*, said sections being also provided with right-angled lugs or pins *h' h'* at the free ends thereof, so that the lug or pin *h'* of each section will engage with one of the holes *h* in the other sections, all as clearly shown in Fig. 6, thus preventing any lateral movement of the sections when connected together. By having the shank of the hook made in sections, as above described, it can be adjusted so as to lengthen or shorten it, and thereby adapt the hook G, in connection with the hook B, to car-wheels of different diameters. The upper section, H, of the shank of the hook is pivoted or journaled near its upper end between the lower ends, *e e'*, of the bifurcated strap E (which projects a short distance below the lever A) by means of a bolt, J, passing through said strap, and an elongated slot or opening, h^2, through said section H. The section H is also provided above its pivotal point, or at the upper end thereof, with a lug, *k*, adapted to engage a slot, *l*, in a lug, *m*, on the inner face of the portion *e* of the bifurcated strap E, for the purpose of securing said section H on a perpendicular line with the strap E when the lever is applied to the car-wheel for moving it. The elongated slot or opening h^2 in the section H permits of its having sufficient vertical play on the bolt J to throw the lug *k* out of engagement with the slotted lug *m* when it is desired to turn the shank of the hook G parallel with the lever A, as shown in dotted lines, Fig. 1. The object of turning the shank of the hook G parallel with the lever A is to permit of its being applied to car-wheels having brakes applied thereto, the parallel positions of the hook-shank and lever permitting them to be passed over the beams or timbers to which the brakes are applied.

The hooks B and G are constructed of steel or hardened iron and with deep throats *n*, and the concave faces beveled off on opposite sides

of the hooks to form central sharp edges, *o*, which will grapple readily and firmly upon the flange of the car-wheel.

By having the bolt upon which the bifurcated strap is mounted journaled or passing through the metallic plate C, the strain is brought on top of the lever A instead of through it, as is the case where the bolt passes through the lever, the opening for the bolt through the lever tending to weaken it.

To operate my device and move a car forward, I apply the upper hook, B, to the flange of the wheel forward of a vertical line through the axis thereof, and the lower hook, G, (after the shank has been properly adjusted to the size of the wheel,) to the flange of the wheel in rear of a vertical line through the axis thereof, all as clearly shown in Fig. 1. A lifting force being now applied to the lever will cause the wheel to be turned around a short distance. A downward motion of the lever will loosen the gripe of the hooks, so that they may be instantly detached, if desired. It will thus be seen that by alternate upward and downward movements of the lever the wheel can be rolled any distance.

In order to draw the car backward it is only necessary to reverse the position of the hooks, so that the short hook B will engage with the flange on the rear side of the left-hand wheel and the long hook G on the forward part of the flange of the wheel, and then push down on the lever, instead of lifting up.

Having thus fully described my invention, I do not wish to be understood as claiming, broadly, a stationary and pivoted hook adapted to be applied to the flange of a car-wheel for moving it; but

What I do claim as my invention, and desire to secure by Letters Patent, is—

1. A lever for moving cars, having one or more hooks with deep throats *n*, and concave faces beveled off on opposite sides of the hook to form central sharp edges, *o*, that engage with the flange of the wheel, substantially in the manner herein shown and described.

2. A lever for moving cars, having a stationary hook, B, a pivoted hook, G, and lugs *f f*, for limiting the movement of the pivoted hook, substantially in the manner as and for the purpose herein shown and described.

3. A lever for moving cars, having a stationary hook, B, and a movable hook, G, having its shank composed of adjustable sections H H′, substantially as and for the purpose herein shown and described.

4. A lever for moving cars, having a metallic plate, C, with an enlarged portion, *c*, provided with an opening, *c′*, through it, secured on the top side of said lever, the bifurcated strap E, to which the hook G is secured, mounted on a bolt passing through the opening *c′*, substantially as and for the purpose herein shown and described.

5. A lever for moving cars, having the bifurcated strap E, the hook G, having its shank pivoted to said strap, and means, substantially as described, for securing the shank of said hook in a vertical line with the strap E, substantially as and for the purpose specified.

6. A lever for moving cars, having the pivoted bifurcated strap E, and the hook G, having its shank pivoted to said strap, whereby the shank is adapted to be turned parallel with said lever, substantially as and for the purpose herein shown and described.

7. The hook G, having its shank composed of the sections H H′, each provided with a series of holes, *h*, and a lug, *h′*, and the bolt and nut I *i*, for securing said sections together, substantially as herein shown and described.

8. A lever for moving cars, having the bifurcated strap provided with the slotted lug *m l*, and the shank of the hook G, pivoted to said strap, and provided with the lug *k*, and elongated slot or opening h^2, substantially as and for the purpose herein shown and described.

9. A lever for moving cars, having the stationary hook B, the metallic plate F, having the laterally-projecting lugs *f f*, secured to the under side thereof, the pivoted bifurcated strap E, and the hook G, having its shank connected to said strap E, the several parts arranged, relatively to each other, substantially in the manner herein shown and described.

In testimony whereof I affix my signature in presence of two witnesses.

LEVI HELLER.

Witnesses:
A. F. DICKINSON,
W. M. HATCH.