(No Model.)

C. F. HAYNES.

Carriage Lifter.

No. 230,275. Patented July 20, 1880.

Fig. 1.

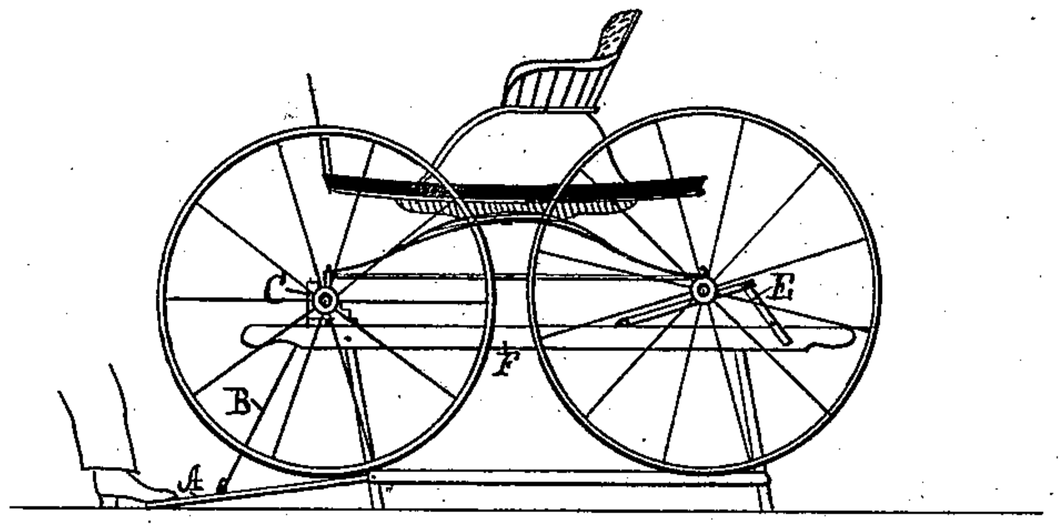


Fig. 2.

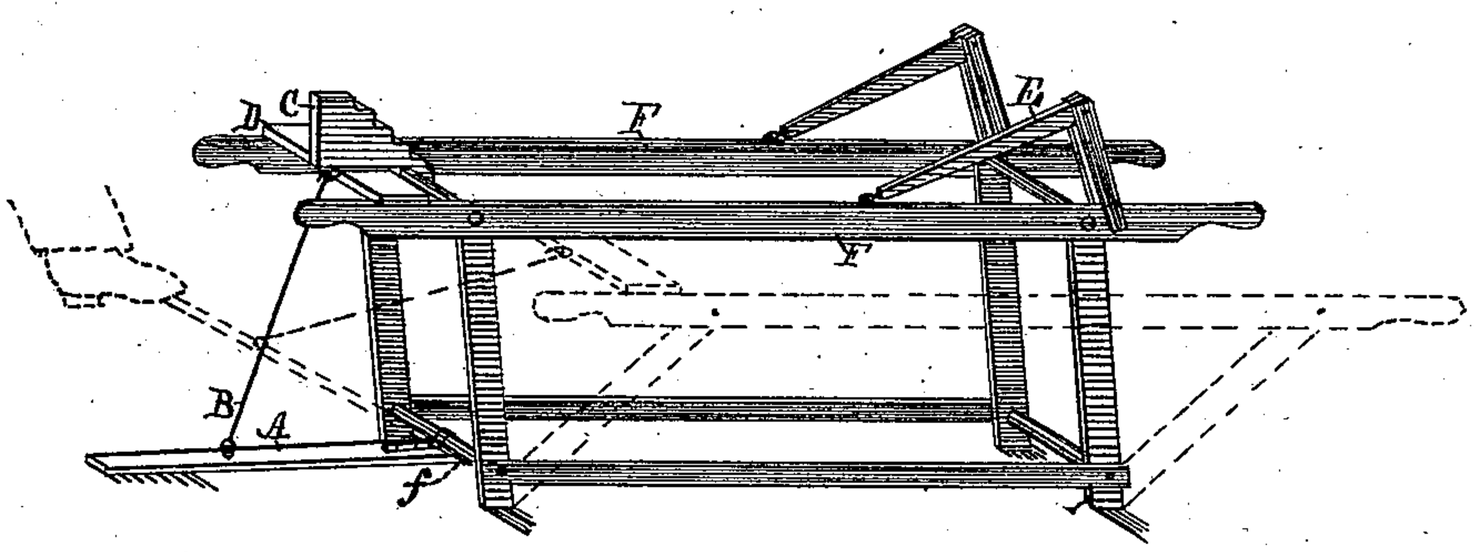
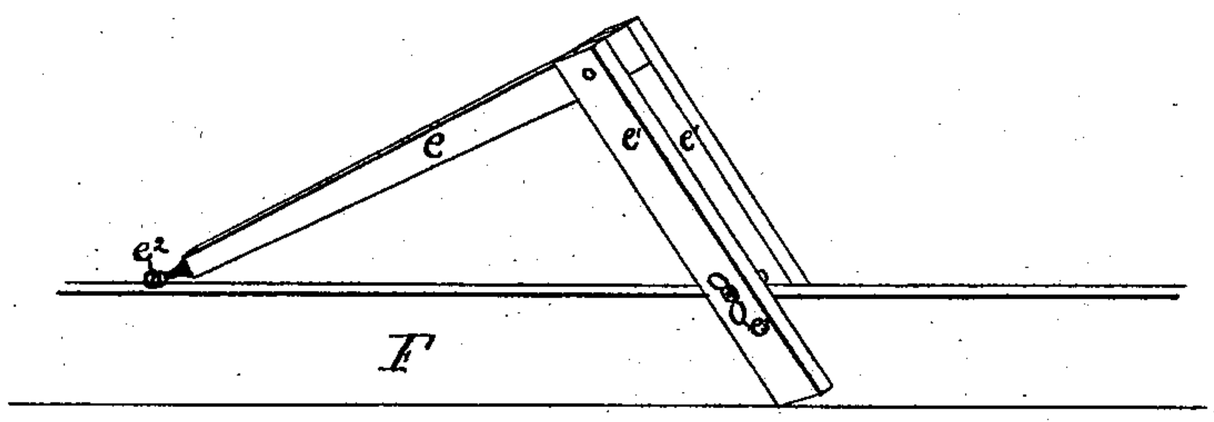


Fig. 3.



Witnesses:
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UNITED STATES PATENT OFFICE.

CHARLES F. HAYNES, OF SKOWHEGAN, MAINE.

CARRIAGE-LIFTER.

SPECIFICATION forming part of Letters Patent No. 230,275, dated July 20, 1880.

Application filed June 5, 1880. (No model.)

To all whom it may concern:

Be it known that I, CHARLES F. HAYNES, a citizen of the United States, residing at Skowhegan, in the county of Somerset and State of Maine, have invented certain new and useful Improvements in Carriage-Lifters; 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 letters or figures of reference marked thereon, which form a part of this specification.

My invention relates to improvements in carriage-lifting frames, and is designed more especially as an improvement on the carriage-lifter secured to me by Letters Patent No. 177,638, dated May 23, 1876.

The objects of my invention are, first, to provide means by which the carriage may be more easily and quickly raised; and second, to regulate, by suitable mechanism, the height to which the carriage is to be lifted. I attain these objects by means of the mechanism illustrated in the accompanying drawings, in which—

Figure 1 represents a side elevation of the lifter with a carriage in position. Fig. 2 represents a perspective view. Fig. 3 represents details of adjustable rests E E.

F F are the upper rails of my original carriage-lifter. Across the forward ends of these rails I secure the cross-piece D. Resting upon the middle of this cross-piece, and firmly attached thereto, is the graduated rest C, the edge of which is cut into a succession of steps or notches in such a manner that the forward axle of the carriage may be supported upon any of the steps or notches, according to the height of the axle.

Attached to the back ends of the rails F, and opposite each other, are the two adjustable rests E E, so placed that the rear axle of the carriage will rest upon them when the forward axle rests upon the block C. The rests E E are composed of the inclined piece *e*, secured to the rail F by the hinged joint e^2 and the clamping-pieces e' e', the upper ends of which are pivoted to the end of the piece *e*, while the lower ends embrace the rail F, and are firmly clamped to it by means of the bolt and thumb-screw e^3. The bolt e^3 brings up against the top of the rail F and aids the clamp motion in supporting the rest E.

Hinged to the lower cross-bar, *f*, and projecting forward, is the lever A; and secured to this lever A, at or near its middle point, is the rod B, the upper end of which hooks on a staple in the cross-piece D.

Having described the construction of my invention, I now proceed to explain its mode of operation.

The lifter is first placed under the carriage in such a position that one of the notches of the block C will come in the center of the forward axle. The position of the block C will depend upon the height of the axle—*i. e.*, the higher the axle the farther forward it must come on the block C. When this is done the upper end of the rod B, which was previously free, is hooked on the staple in the cross-piece D. The foot is then pressed down on the end of the lever A, and the frame bearing the carriage is raised.

The length of the rod B is so adjusted that when the end of the lever A reaches the floor the legs of the frame will have passed the perpendicular position and inclined slightly forward. Now, the rod B, acting as a strut or brace, prevents the frame from going forward, and the position of the legs prevents it from going backward, so that its stability is assured.

The lever A may be of any length, and the rod B secured either to it or to the cross-piece D, as described; but it must be so hooked and secured as to act as a brace.

The adjustable rests E are to be raised or lowered according to the height of the rear axle, which rests upon them, by loosening the clamp-screw e^3 and sliding the lower end of the clamp-pieces e' e' along the rail F backward or forward.

It is evident that since the forward axle of the carriage rests on a single point it can be swung to the right or left, thus allowing the workman to come between the wheels. As thus made my carriage-lifter is adapted to carriages and wagons of different lengths within certain limits, and also to those of various heights.

I claim as my invention—

1. In a carriage frame or lifter, substantially as described, having a cross-piece, D, attached to or upon the upper rails, F, and carrying the notched rest C, the rear inclined and adjustable rests, E E, all constructed and arranged substantially as and for the purposes set forth.

2. In a carriage frame or lifter, substantially as described, having a cross-piece, D, connecting its top rails, F, and a lower cross-bar, *f*, the lever A, hinged at one end to said bar *f*, and rod B, connecting lever A to cross-piece D, the whole constructed and operating substantially as described.

3. In a carriage-lifter, the adjustable rests E E, composed of the inclined piece *e* and the clamping-pieces *e' e'*, substantially as and for the purpose set forth.

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

CHARLES F. HAYNES.

Witnesses:

C. V. RICHARD,

H. P. SPRING.