

(No Model.)

C. C. BOWER & A. B. EVANS.
WAGON JACK.

No. 447,756.

Patented Mar. 10, 1891.

Fig. 1.

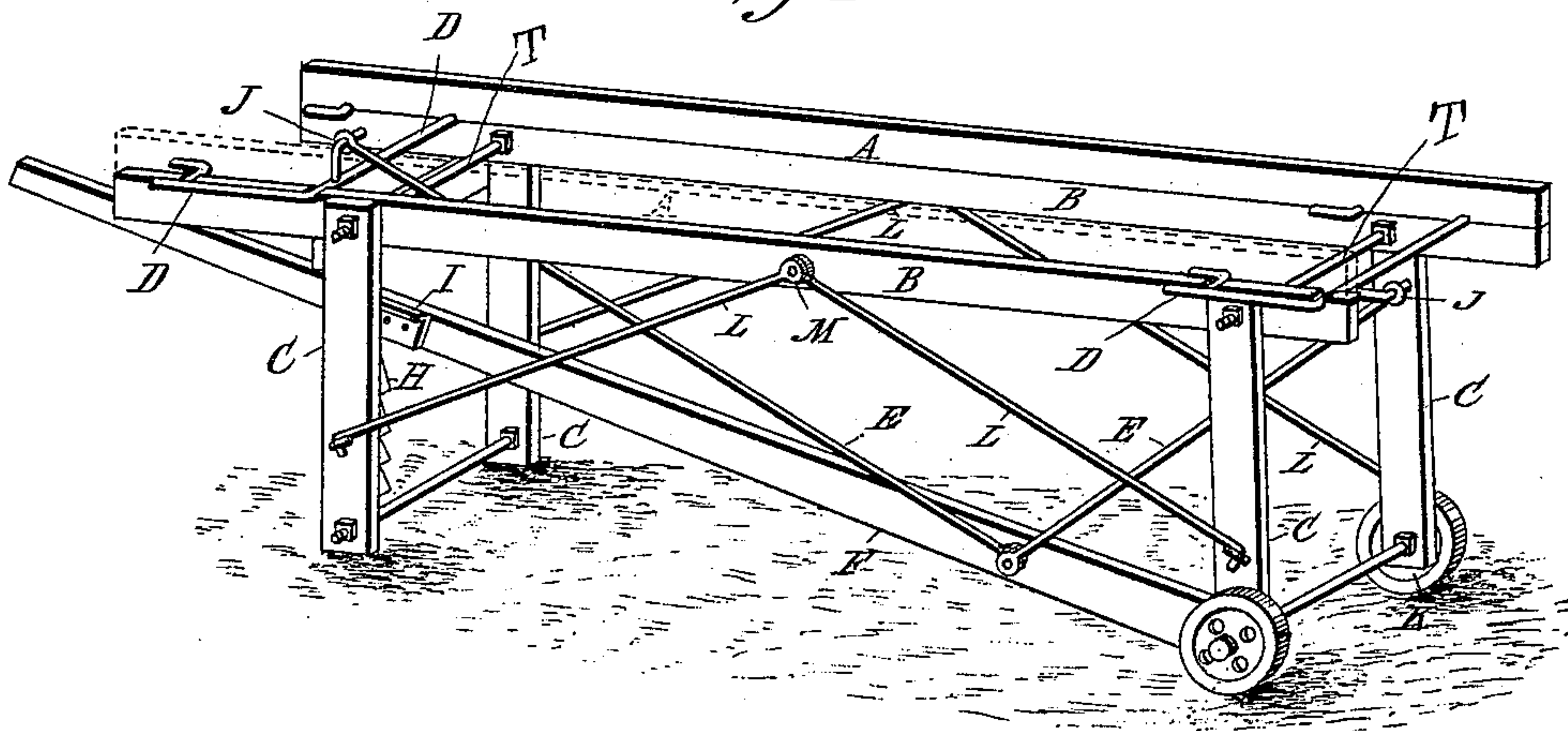


Fig. 2.

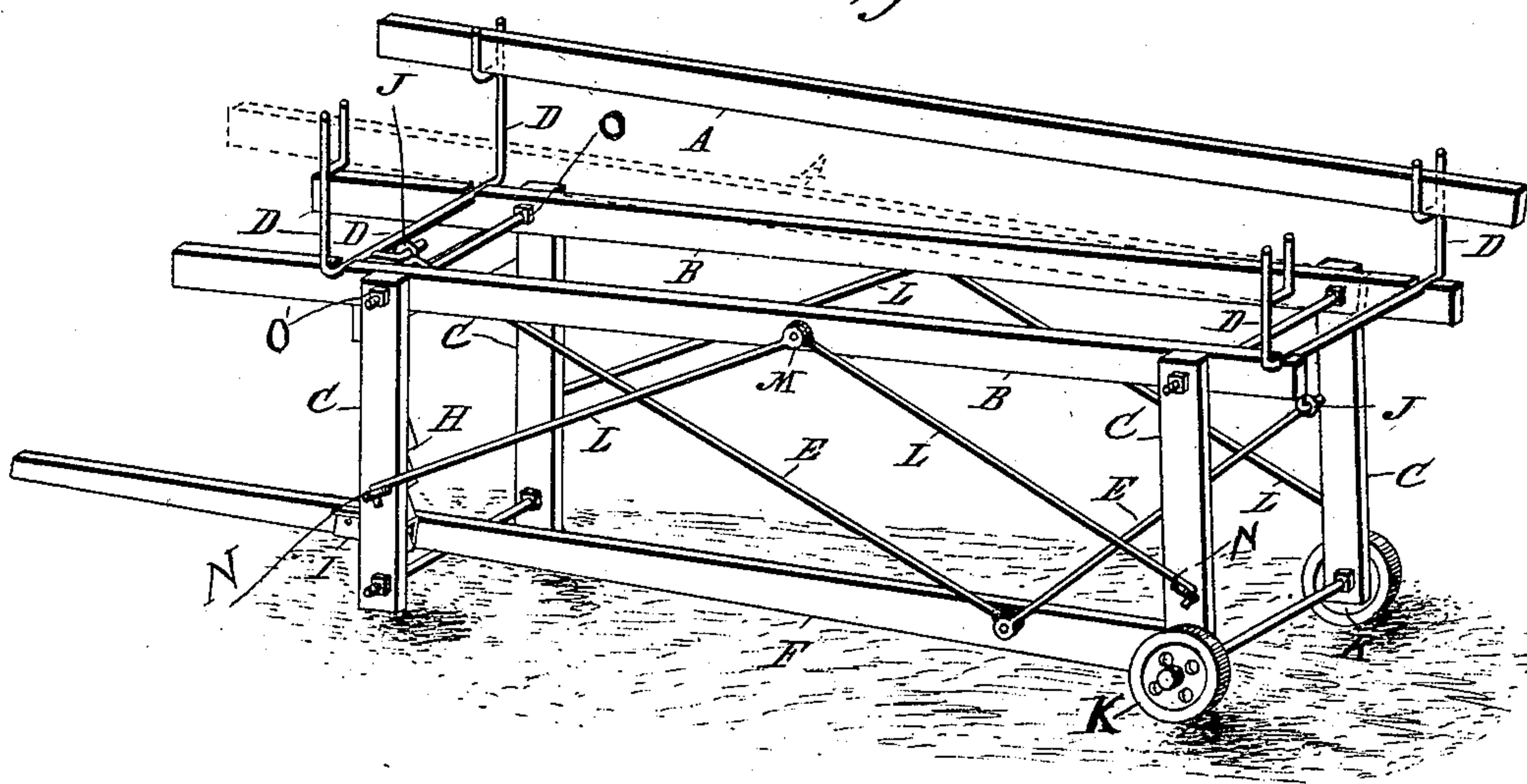
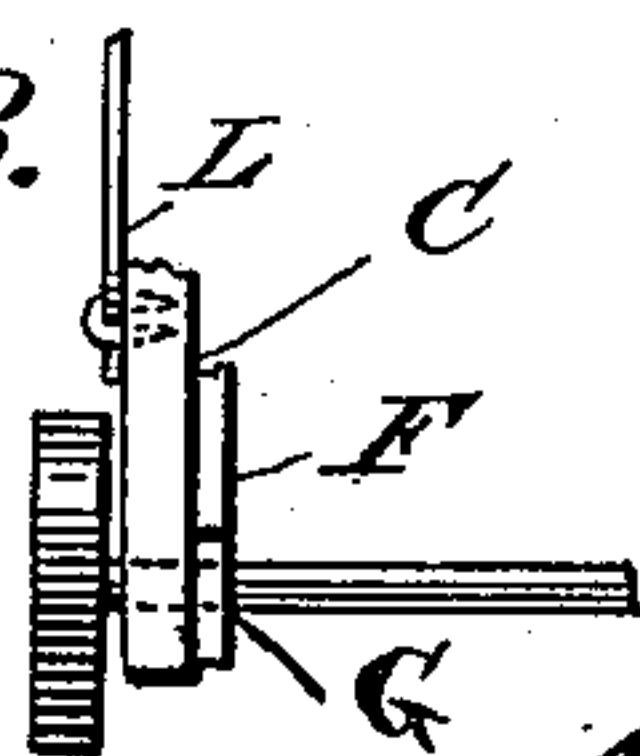


Fig. 3.



Witnesses:

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UNITED STATES PATENT OFFICE.

CHARLES C. BOWER, OF BIRMINGHAM, ALABAMA, AND AURELIUS BRADFORD EVANS, OF THOMPSONTOWN, PENNSYLVANIA.

WAGON-JACK.

SPECIFICATION forming part of Letters Patent No. 447,756, dated March 10, 1891.

Application filed April 6, 1888. Serial No. 269,876. (No model.)

To all whom it may concern:

Be it known that we, CHARLES C. BOWER and AURELIUS BRADFORD EVANS, both citizens of the United States, residing, respectively, at Birmingham, State of Alabama, and at Thompsonstown, in the county of Juniata and State of Pennsylvania, have invented certain new and useful Improvements in Wagon and Carriage Jacks, such as that shown in Patent No. 354,385, which was patented to us December 14, 1886, of which the following is a specification.

The object of this our improvement is to do away with the frame shown in our aforesaid patent and instead use parallel raising-bars held in place by the L-shaped ends of long arms or levers of lever-shafts, so that when the jack is used under a buggy or carriage with a low reach or low center-spring the cross-pieces, which in a frame would come in contact with said reach or spring, will not be in the way; also, the parallel raising-bars lying loosely in the L-shaped ends of long levers of lever-shafts can be removed readily and longer and wider ones put in their place when a buggy or carriage is found with an unusually long reach or where the axles are unusually high.

Figure 1 represents the machine as closed ready for use; Fig. 2, the machine raised as it appears when a carriage is resting upon it. Fig. 3 is a detail.

Similar letters refer to similar parts throughout.

A A represent movable raising-bars resting on the stationary frame B B and held in position by resting in the ends of long levers of lever-shafts D D, which are made L-shaped in order that the bars will always maintain a parallel position and will not turn over when a weight rests upon them.

The stationary frame B B is supported by the legs C C C C.

D D are the lever-shafts resting in boxes in stationary frame B B and ends of long levers D D, which are L-shaped, supporting movable raising-bars A A. To these lever-shafts at end of short lever J are attached the pitmen E E, the opposite ends of which are attached to the foot-lever F. The construction is such that when the foot-lever F is pressed down

the pitmen E E turn the lever-shafts D D and raise the movable raising-bars A A.

The foot-lever F is held in position at any point by the ratchet H and the ratchet-dog I on foot-lever. In the illustration the foot-lever F is attached to the leg C at the fulcrum-point G; but the lever may be placed under the middle of the frame and attached to the rod or brace extending across the end from the bottom of one leg to the bottom of the other, and the ratchet H then would be placed midway between the legs at the other end and securely fastened to a similar brace or rod. In fact the foot-lever F may have its fulcrum-point on either leg of the stationary frame B B, or between them on rod running from one to the other, at any height or at any point under the stationary frame B B thought convenient, when or in which case an extra leg or brace might be necessary to extend down from any point of stationary frame B B upon which the foot-lever F could have its fulcrum-point.

The legs C C C C are shown as rigid, but may be so attached to the stationary frame B B that they fold parallel with the machine when the machine is not in use. This may be accomplished in several ways; and in the drawings L L are braces working on a bolt at M on stationary frame B B and held in place by staples N on legs C C C C, and when pulled out of the staples the legs C C C C will fold parallel with the machine by turning on the bolts T, which constitute part of the frame-work of the machine, for the stationary frame B B has for its lateral frame-work iron bolts T with a nut O for a shoulder and a nut O' on the outside with which to tighten the same.

K K are cast-iron wheels attached to the legs C C, or front legs of the machine, and are for the purpose of convenience in moving the machine about and running it under a buggy or wagon.

By taking hold of the foot-lever F the machine can be used wheelbarrow style and pushed along and under a vehicle.

It will be observed that levers on lever-shafts are of unequal lengths, as illustrated in the figures. These are so constructed that carriages the hind and fore wheels or axles of which are of unequal heights may be prop-

erly raised from the ground. The same end we also attain by making the legs at opposite ends of frame of unequal length.

5 The pitmen E E may be either rods of metal, cables, or rope, and may be attached to the foot-lever F at the same point, as represented in the illustration.

10 The boxes in stationary frame B B in which lever-shafts D D rest are made by simply boring holes in the upper edge of stationary frame B B with a bit, allowing it to cut through the edge of the frame sufficiently to admit of the lever-shafts D D. By doing the same way with the under edge of the parallel raising-bars A A the L-shaped ends of lever-shafts D D will rest in the raising-bars A A and will allow them to lie close to the stationary frame B B. The utility of these raising-bars A A, made in the foregoing manner and lying loosely in the L-shaped ends of lever-shafts D D, will be apparent when we come to need a little higher lift, in which case we lift the raising-bars A A out of these simple boxes and allow them to rest on the full edges of themselves, thus gaining a lift the thickness of the lever-shafts D D; also, the fact of their lying loosely in their position another pair of raising-bars longer and wider

can in a moment be put in place and a carriage with a longer reach and unusual height of axle be raised without any difficulty. 30

In the illustration we use two lever shafts or cranks. We can also work the machine in the same manner by the use of one lever shaft or crank by placing it at one end or in middle of stationary frame. If put at the end, the other ends of raising-bars would be attached to stationary frame by braces working on bolts as in parallel-ruler. If put in the middle of stationary frame, either end of raising-bars would be fastened to stationary frame by braces working in bolts as in a parallel-ruler. 35 40

Having now described our invention, or improvement in our invention, what we desire to claim, and secure by Letters Patent, is— 45

In a lifting-jack, the combination of the bars A A, the L-shaped levers D D, adapted to support said bars, the pitmen E E, foot-lever F, and the frame provided with braces, legs, and wheels, substantially as described. 50

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