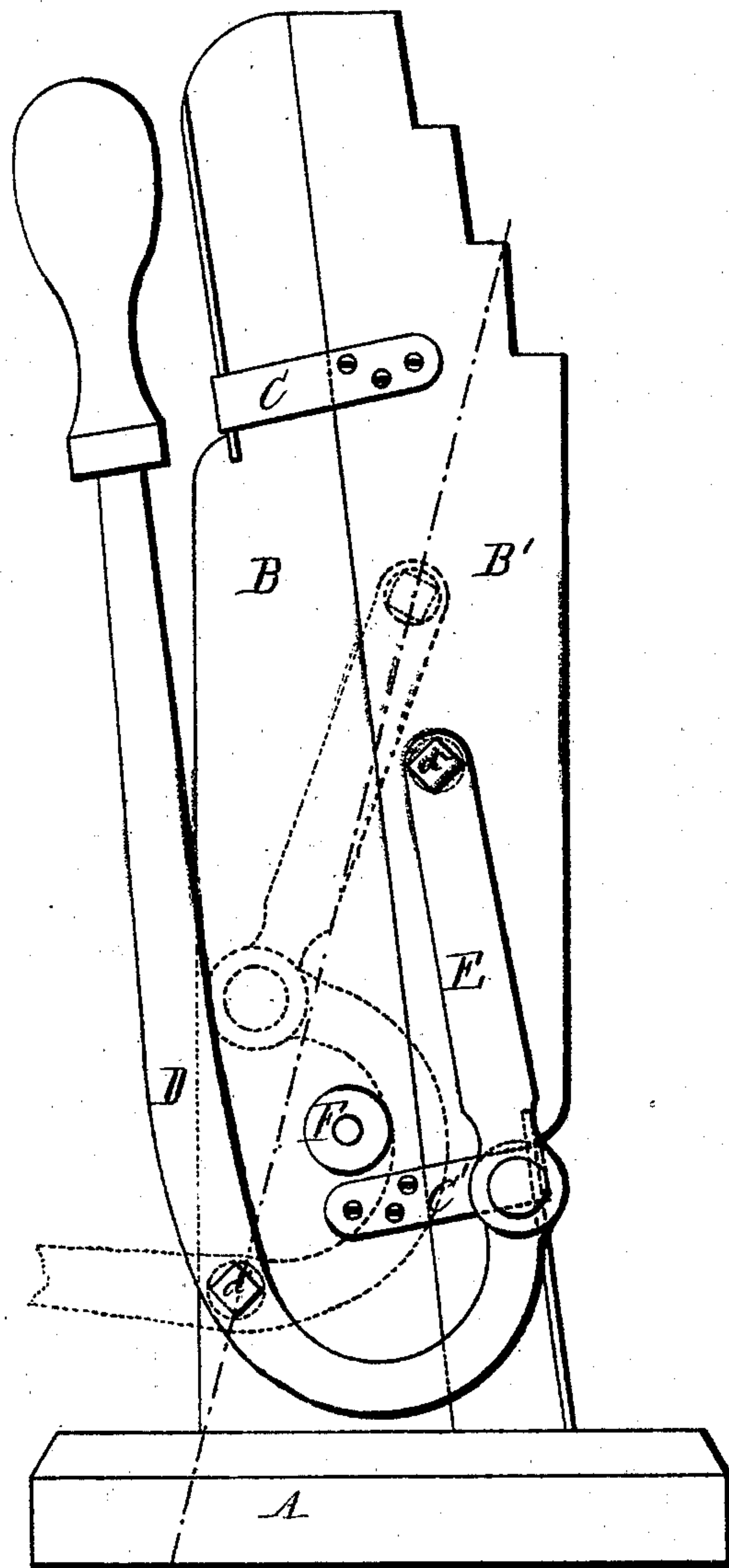


W. H. GREENWALT.

Improvement in Lifting Jacks.

No. 120,511.

Patented Oct. 31, 1871.



Witnesses  
E. A. Bates  
Villette Anderson

Inventor.  
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# UNITED STATES PATENT OFFICE.

WILLIAM H. GREENWALT, OF STRICKERSVILLE, PENNSYLVANIA.

## IMPROVEMENT IN LIFTING-JACKS.

Specification forming part of Letters Patent No. 120,511, dated October 31, 1871.

*To all whom it may concern:*

Be it known that I, WILLIAM H. GREENWALT, of Strickersville, in the county of Chester and State of Pennsylvania, have invented a new and valuable Improvement in Carriage-Jacks; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawing making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a side view of my invention.

My invention has relation to an improvement in wagon-jacks, the subject whereof has an adjustable standard sliding upward over the inclined face of a stationary standard, and operated by means of a bent lever, which, being pivoted to the stationary standard, is coupled to the other by means of a toggle-link. My invention consists in the construction and novel arrangement of the bent lever above referred to, and of a locking roller journaled to the stationary standard by means of a stout pin, the object being to obtain the maximum power of the lever without waste, and to provide an effectual and convenient locking device which will not be overcome by the downward pressure on the adjustable standard which supports the weight to be lifted.

In the accompanying drawing, A represents a sill supporting a standard, B, having an inclined face, upon which slides an adjustable standard, B', having a correspondingly-inclined back, and constructed with a series of notches or steps, *b*, to hold axles of various heights. C C' designate guiding-bands secured respectively to the stationary and adjustable standards, and passing over the necks *d d'* of the same. D represents a J-shaped lever, which has a long arm and is pivoted at the junction of said arm with the curved part to the standard B by means of a pivot, *d'*. Attached to the end of said lever is a straight link, E, which is pivoted at its upper end to the

adjustable standard B' by means of a pivot, *d''*. F indicates a strong roller journaled to the side of the standard A obliquely above the pivot *d'*. In the drawing representing the parts in full outline the adjustable standard is shown as down, resting on the sill A. In this position the arm of the lever D stands upright, the lower end of the link E being on the side of the roller F opposite the pivot *d'*, said link lying parallel or nearly parallel to the inclined surfaces of the standards B B'. In order to raise the standard B' the lever D is pressed down and is locked when the inner side of its curve touches the roller F. This roller is arranged in such relation to the lever that, in order to effect its function, the connected ends of the lever and link must fall on one side of a direct line running from the pivot *d'* to the pivot *d''*, while the roller is situated on the opposite side. Otherwise a moderate pressure would throw the lever back to its original position. When the ends of the lever and link attain the point above described the roller F serves the double purpose of a lock and of a fulcrum, in its latter function relieving the strain of the pivot *d'*. The locking device, being a roller, gives slightly to the pressure of the lever, making the same more rigid, and may be turned around according as it wears, so that the lever and link may always attain the proper locking position, as described.

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

The lever D, link E, slide B', and lock-roller F, constructed and arranged as described, in combination with the adjustable standard B of a wagon-jack, as and for the purpose set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

WILLIAM H. GREENWALT.

Witnesses:

GEO. H. WATSON,  
WM. H. SIMPERS.

(79)