

*J. H. Hadley,*

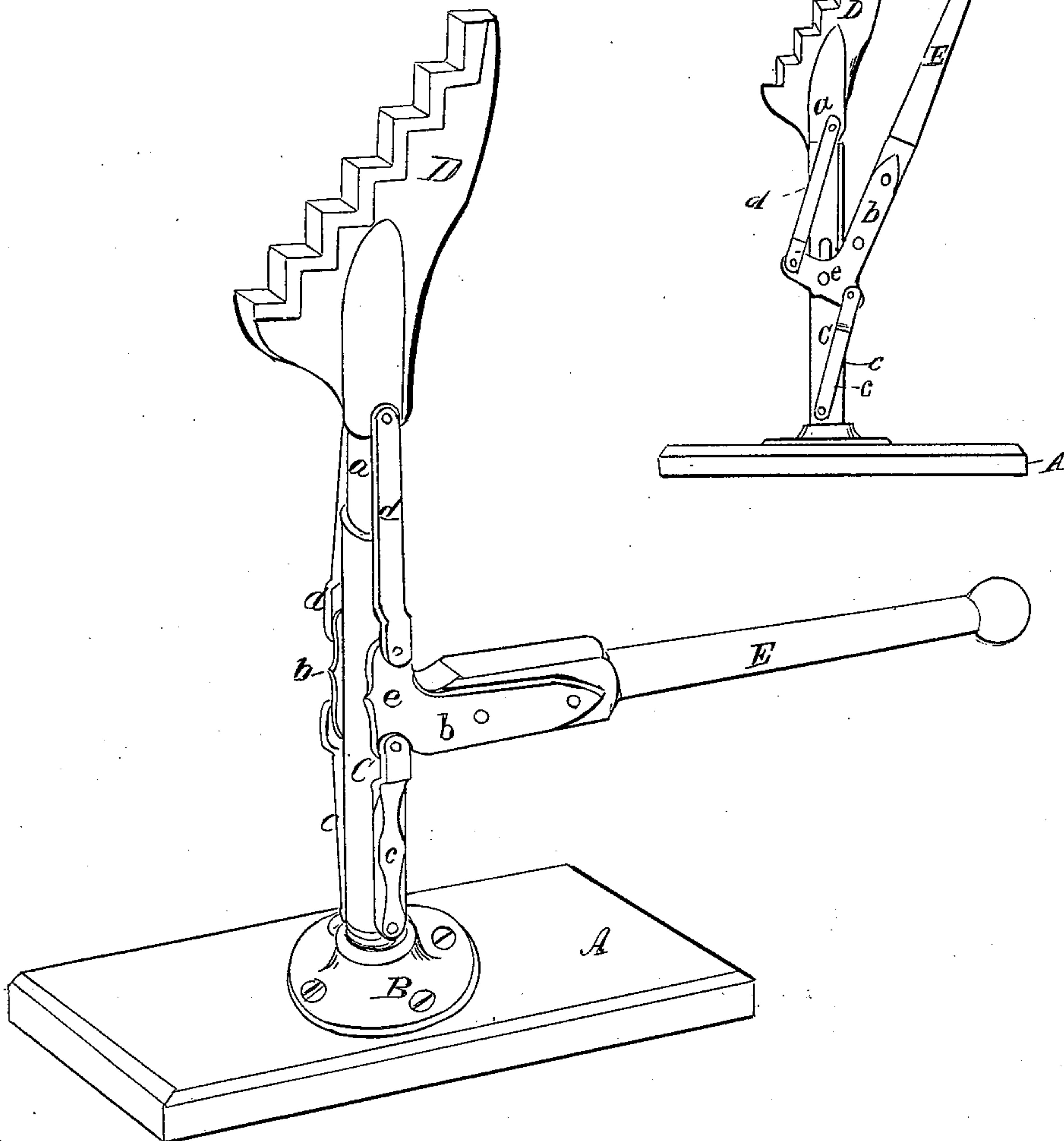
*Lifting Jack.*

*No. 87,927.*

*Patented Mar. 16. 1869.*

*Fig. 1*

*Fig 2*



*Witnesses*

*E. M. Porter.*  
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*Inventor*

*J. H. Hadley*  
*By T. W. Porter*  
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# United States Patent Office.

J. H. HADLEY, OF BOSTON, MASSACHUSETTS.

Letters Patent No. 87,927, dated March 16, 1869; antedated March 12, 1869.

## IMPROVED CARRIAGE-JACK.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, J. H. HADLEY, of Boston, in the county of Suffolk, and State of Massachusetts, have invented a new and useful, or improved Carriage-Jack; 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 accompanying drawings, making a part of this specification—

Figure 1, of the same, being a perspective view of my invention, when raised, and

Figure 2 being a side elevation, when lowered.

The nature of my invention consists in a carriage-jack, combining lightness, strength, scope, and power of action, with small cost, the upright parts consisting of two pieces of gas-pipe or iron tubing, one sliding within the other; a graduated iron head cast upon the smaller, or sliding tube; and the actuating-device consisting of a T-lever connected with pivoted straps, attached to the external and internal tubes respectively, their centres, or pivots so arranged as to remain fixed when the jack is elevated, regardless of the weight raised upon it.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

In the drawings—

A represents the base, which I usually construct of wood.

B is a circular collar of cast-iron, secured to base A, by screws, as shown.

C is an iron tube, secured in collar B, by male and female screws.

a is a smaller iron tube, which is inserted and slides freely in tube C.

The upper end of tube a is flattened, and the graduated head D is cast upon it, thereby firmly uniting the two together.

c c are two straps, pivoted at their lower ends to tube C, near collar B, as shown; while

d d are also two straps, pivoted at their upper ends to the lower part of head D.

b b are two T-shaped straps, which, at their upper and lower extremities, are pivoted to the straps c c and d d, respectively, as shown.

Upon the inner sides of the T-straps d, and midway between their connections with straps c c and d d, are formed short pivots, at e.

These pivots are inserted in and slide freely up and down in vertical slots cut in tube C, as shown in fig. 2.

E is a handle, which is bolted between the T-straps b b, and by which the jack is actuated.

The practical operation of my invention, briefly stated, is as follows:

Suppose the jack to be in the position shown in fig. 1; then, by raising handle E, the T-straps b move upon pivot e, whereby the connecting-point between straps b and d is thrown forward, and the connection with straps c is thrown backward, when the T-straps slide downward to the extent that the pivot between straps c and b is lowered, by being thrown out of a vertical line with pivot e, while the head D is lowered, not only the distance just described, but also that which the pivot between straps b and d is lowered, by being thrown forward out of a vertical line with pivot e.

The position of the moving parts, when thus lowered, is shown in fig. 2.

To raise the wheel of a carriage, the jack, when lowered, as described, is placed under the axle, at such seat in the head as is of the right height, when, by depressing handle E, the head is raised by a movement of the parts inverse to that described above, and when fully raised, the jack is self-sustaining, for the reason that the pivots in the upper part of the T-straps are just back, while those in the lower part are just forward of a vertical line passing through pivots e.

As the action of strap c counteracts that of d, no strain is brought upon the pivots e, except that incidental to holding the T-straps in place.

Having thus described my invention,

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

Combining, with a hollow wrought-iron sliding tube, a, the graduated cast-iron head D, when cast upon the wrought-iron, substantially in the manner as and for the purposes specified.

Also, the actuating-device, as constructed, with the straps c c and d d, attached to the fixed and sliding parts C and a, respectively, the pivoted sliding T-straps b b and lever E, all constructed and arranged to operate substantially in the manner as and for the purpose specified.

Witnesses:

C. T. KIMBALL,  
T. W. PORTER.

J. H. HADLEY.