

(No Model.)

L. O'HARA.  
LIFTING JACK.

No. 355,551.

Patented Jan. 4, 1887.

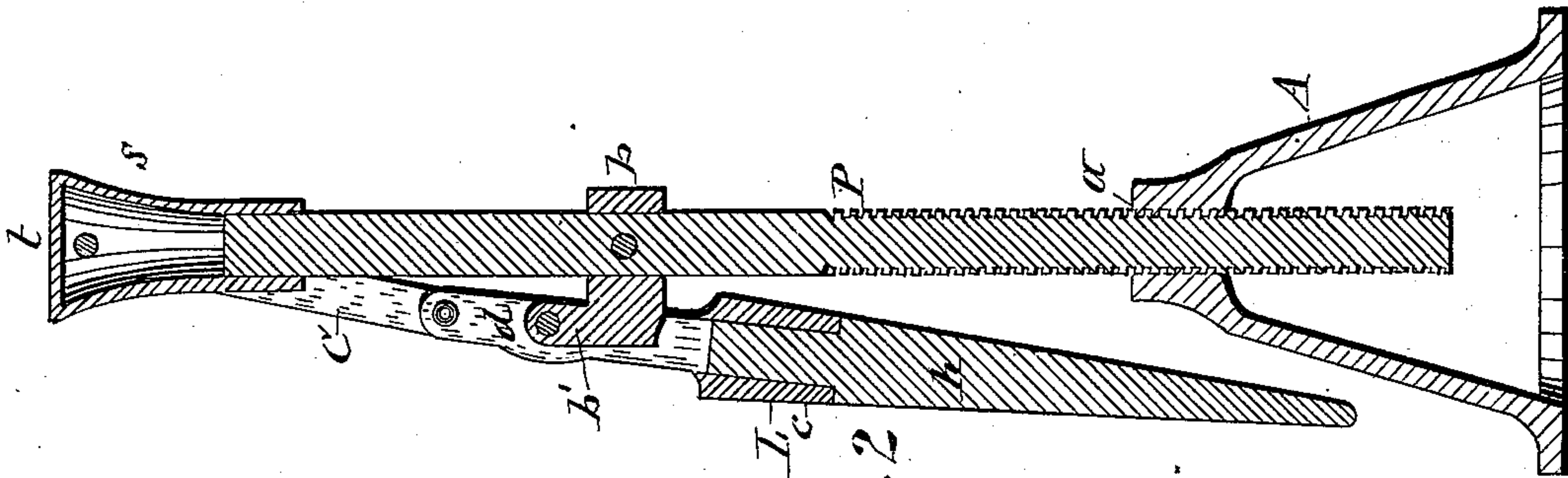


Fig. 2

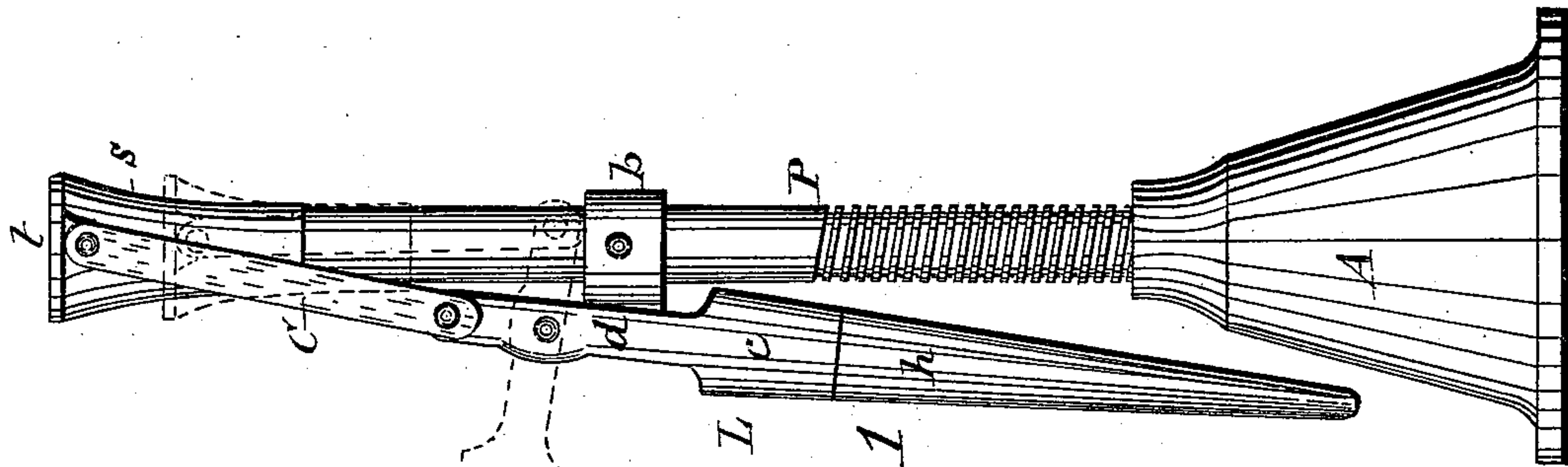


Fig. 1

WITNESSES:

A. F. Walz,  
C. Bendixen.

INVENTOR:

Lewis O'Hara

per H. L. Laess & H. L. Laess  
his Atty.



# UNITED STATES PATENT OFFICE.

LEWIS O'HARA, OF OSWEGO, NEW YORK, ASSIGNOR OF ONE-HALF TO  
JOHN SINNAMON, OF SAME PLACE.

## LIFTING-JACK.

SPECIFICATION forming part of Letters Patent No. 355,551, dated January 4, 1887.

Application filed October 16, 1886. Serial No. 216,382. (No model.)

*To all whom it may concern:*

Be it known that I, LEWIS O'HARA, of Oswego, in the county of Oswego, in the State of New York, have invented new and useful  
5 Improvements in Lifting-Jacks, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

This invention relates to the class of lifting-  
10 jacks in which a vertically-sliding prop is guided on a standard and operated by a lever fulcrumed on a suitable support secured to said standard, and by toggle-arms connecting  
15 the short arm of the lever with the sliding prop; and the invention has special reference to the lifting-jack for which I have obtained Letters Patent of the United States, No. 164,323, dated June 8, 1875.

My present invention consists in an im-  
20 proved construction and combination of parts, whereby greater stability is imparted to the jack, as hereinafter fully described, and specifically set forth in the claims.

In the annexed drawings, Figure 1 is a side  
25 elevation of my improved lifting-jack, and Fig. 2 is a vertical transverse section of the same.

Similar letters of reference indicate corresponding parts.

30 A represents the foot or base of the jack, preferably of the form of a hollow truncated cone terminating with a screw-threaded vertical socket, *a*, in the center of its upper end. In the socket *a* is supported the post P, which  
35 has its lower end portion screw-threaded externally to work in the socket *a*, and is thus rendered adjustable in its elevation.

On the upper end of the post P slides vertically a sleeve, *s*, which is provided at its upper end with a broad horizontal cap, *t*. Some  
40 distance below the sleeve *s* is a collar, *b*, rigidly secured to the post P, and from this collar rises an arm, *b'*, on which is fulcrumed the hand-lever L. The short or upper arm of this  
45 lever is connected with the sliding sleeve *s* by toggle-arms C.

In operating the described lifting-jack the post P is first turned in the socket *a* of the base A, to raise or lower said post and bring  
50 it to the proper elevation to cause the sliding sleeve *s* to lift the superincumbent load when

the lever L is depressed into the position shown in Fig. 2 of the drawings, and when in this position the pivotal connection of the toggle C on the lever L is outside of a straight  
55 line drawn from the fulcrum of the lever to the pivotal connection of the said toggles on the sliding sleeve *s*, thereby causing the lever and toggles to be locked in their said position by the downward pressure of the load sup-  
60 ported by the jack.

In the lifting-jack shown in my prior patent, hereinbefore referred to, the adjustable features of the jack consist of a screw-threaded  
65 collar working on an externally screw-threaded hollow and stationary standard, and a prop slides in the hollow standard and is connected by toggle-arms with the aforesaid collar.

One of the defects of said prior device consists in the liability of the hollow standard becoming split by a lateral strain from a load  
70 resting on the sliding prop when the lever-supporting collar is screwed down on the standard, so as to leave a great portion of the latter unsupported by said collar, and this defect is  
75 obviated by my present invention. Another defect in the lifting-jack shown in my prior patent consists in the construction of the hand-lever and its connection with the collar *b*, which necessitates cutting away the lower por-  
80 tion of the upright arm of the collar *b* for the purpose of affording the requisite play to the lever. Said cutting away the material at the junction of the arm with the collar *b* weakens the former, so as to cause it to break off when  
85 subjected to the pressure of the lever L in lifting a load by the jack. To obviate this defect I now construct the lever L of a stout ferrule, *c*, into which I insert a wooden handle, *h*. From said ferrule project two arms, *d d*,  
90 which are integral therewith and are pivoted on the collar-arm *b'*, and have connected to them the toggles C, in the usual manner. The length of the arms *d d* from their fixed ends on the ferrule *c* to the pivot on the collar-arm *b'*  
95 is somewhat greater than the height from the bottom of the collar *b* to the aforesaid pivot, so that the ferrule *c* passes under the aforesaid collar when the lever is depressed, as represented in Fig. 2 of the drawings. This con-  
100 struction allows me to maintain the arm *b'* of a uniform size to the bottom of the collar *b*,



the resultant projection on the side of the collar entering between the arms *d d* and over the ferrule *c*, as shown.

5 Having described my invention, what I claim as new, and desire to secure by Letters Patent, is—

10 1. The improved lifting-jack, consisting of the base *A*, provided with the screw-threaded socket *a*; the post *P*, screw-threaded at its lower end and adjustably connected thereby to said socket, the sleeve *s*, sliding on the upper end of the post and provided with the cap *t*, the collar *b*, rigidly secured to the post, the lever *L*, fulcrumed on the collar, and the toggles *C*, connecting the said lever with the sleeve *s*, all constructed and combined substantially in the manner specified and shown.

15 2. In combination with the post *P*, sliding

sleeve *s*, toggles *C*, and the collar *b*, having the arm *b'* projecting from the side of said collar 20 and maintained of uniform size to the bottom of the same, and the lever *L*, having the arms *d d* of greater lengths from their fixed ends to their pivot on the collar-arm *b'* than the height of said collar-arm from the bottom of the collar *b* to the aforesaid pivot, substantially as 25 described and shown.

In testimony whereof I have hereunto signed my name and affixed my seal, in the presence of two attesting witnesses, at Oswego, in the 30 county of Oswego, in the State of New York, this 9th day of October, 1886.

LEWIS O'HARA. [L. S.]

Witnesses:

T. H. WEBB,  
JOHN SINNAMON.