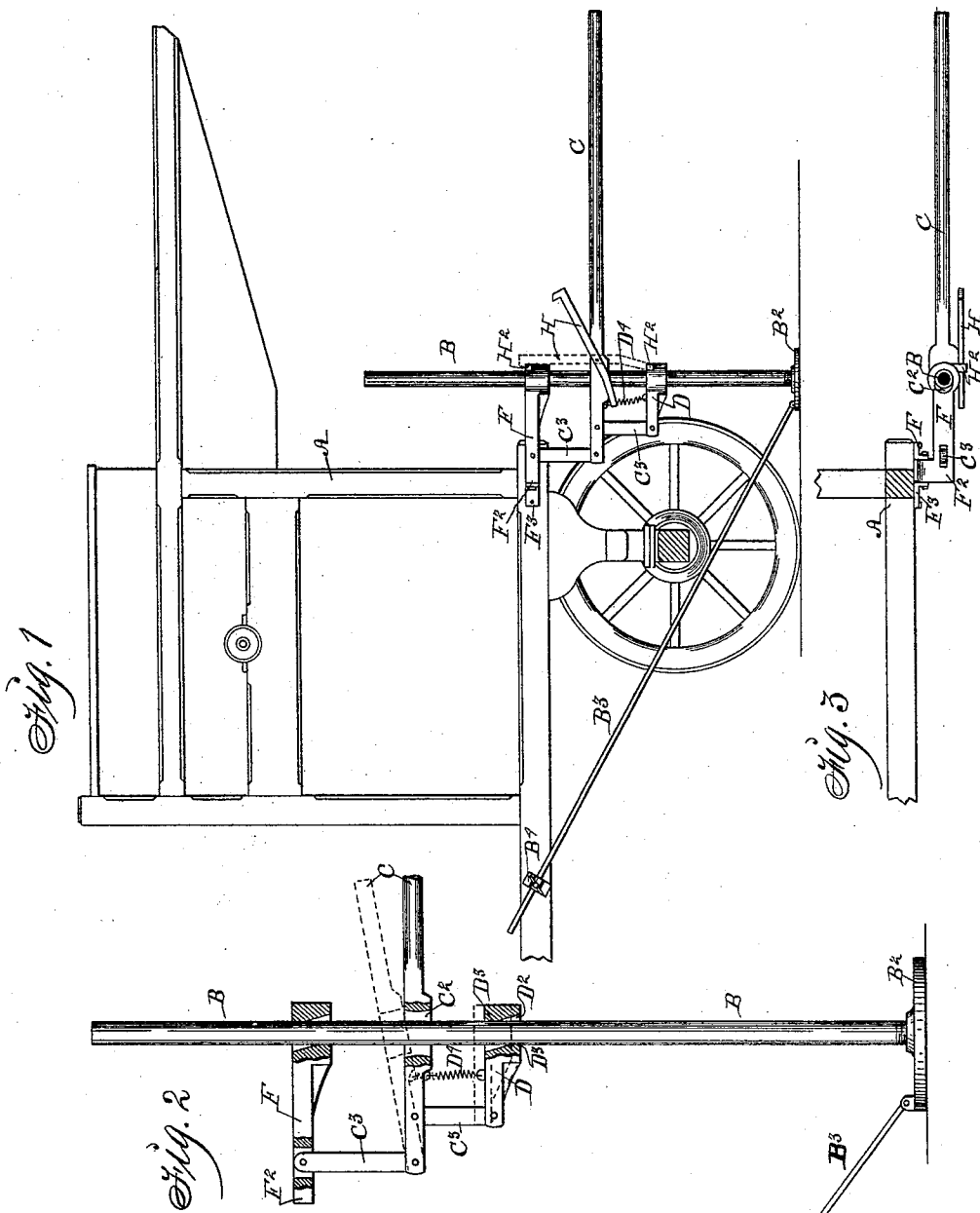


(No Model.)

W. R. PROCTOR.
LIFTING JACK.

No. 487,770.

Patented Dec. 13, 1892.



Witnesses: } Inventor: William R. Proctor,
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UNITED STATES PATENT OFFICE.

WILLIAM R. PROCTOR, OF REDDING, IOWA.

LIFTING-JACK.

SPECIFICATION forming part of Letters Patent No. 487,770, dated December 13, 1892.

Application filed April 22, 1892, Serial No. 430,184. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM R. PROCTOR, a citizen of the United States of America, residing at Redding, in the county of Ringgold, in the State of Iowa, have invented a new and useful Lifting-Jack, of which the following is a specification.

My object is, broadly, to produce an improved jack which may be quickly and easily raised or lowered and adjusted to any desirable height, and my object more particularly is to provide means for leveling thrashing-machines and the like by placing one of the jacks at each corner thereof.

My invention consists, primarily, in the construction of a smooth upright metal bar or standard, two grip devices thereon, and a lever for operating the said grip devices, whereby they may be made to engage the bar alternately and elevate or lower the object to which it is secured.

My invention consists, further, in certain details in the construction of the grip devices and their combination with the operating-lever.

My invention consists, further, in the construction and application of the means for lowering the device and certain other minor details hereinafter set forth, pointed out in my claims, and illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of the rear end portion of a thrashing-machine with the lifting-jack applied thereto as required in practical use. Fig. 2 is an enlarged side elevation of the lifting-jack, having parts of the grip devices broken away to show their construction. The operation of the lever and the lower grip device is also illustrated in this figure by dotted lines. Fig. 3 is a top view of the lifting-jack applied to a part of a frame to show its manner of connection therewith.

Referring to the accompanying drawings, the reference-letter A designates the thrashing-machine or frame to be elevated.

B is a smooth upright support, preferably tubular and supported on the base B².

B³ is an auxiliary support for retaining the base in proper position relative to an object to be elevated, which consists of a metal rod pivotally connected with the base B² and hav-

ing a sliding adjustable connection with the holder B⁴, which in turn is connected with the object to be elevated, and provided with an opening to admit the rod B³ and a set-screw, whereby it may be clamped therein.

C represents the operating-lever, having an elongated opening C³ near its one end adapted to admit the support B and allow the ends of the lever to be capable of a vertical movement in opposite directions thereto.

C³ are arms pivotally connected with the lever C, the one at its end and the other a short distance therefrom and extended vertically in opposite directions.

D represents the lower grip device, which is composed of a straight metal bar, having an enlarged end portion and slot D², adapted to admit the standard B, extended therethrough. This slot is preferably formed by making a vertical bore and then boring in the same opening at an angle relative thereto. This, it will be seen, will allow the outer end of the bore to be elevated, and also allow a smooth surface to remain at the point D³, which engages the standard B. The side of this slot, however, may be straight, if desired, without materially altering its operation. The outer end of the grip device D is pivotally connected with the inner arm C³, and D⁴ is a coil-spring attached to the part D and the lever C to normally hold the enlarged end of the part D elevated.

F is a grip device of a construction similar to the grip device D, and pivotally attached to the upper one of the arms C³. Its free end, however, is bent at right angles at E², and horizontally bored to provide means whereby it may be secured by means of a bolt between two angle-irons F³, pivotally attached to the thrashing-machine. The said bolt is of a size slightly smaller than the said bore, as required, to allow a limited vertical movement of the part F relative to the thrashing-machine.

H represents a hook for holding the grip devices in such a position that the outer ends of both of them may be elevated, as required, to be disengaged from the standard B and thereby be lowered. It is pivoted to the lever C and its top end bent at right angles to engage a projection H² from the side of the upper grip device, and its lower end is adapted to rest on a similar projection on the under

grip device, thereby tending to hold them both downwardly.

The practical operation of my invention is as follows: Assuming that it is desirable to elevate an object, I attach the grip device F thereto, place it thereunder, and then manually operate the lever C. When an upward motion is imparted to the said lever, as indicated by dotted lines in Fig. 2, its fulcrum will be at its end, the outer end of the lower grip device will be elevated, as required, to disengage it from the standard B, and the spring D⁴ will then elevate its enlarged end. Upon reversing the movement of the lever and pressing downwardly thereupon its fulcrum will be at the pivotal point of the arm of the lower grip device, and the downward pressure thereupon will cause the said lower grip device to closely engage the standard, whereupon the upper grip device, together with the object attached thereto, will be elevated and secure a new hold upon the standard, when the weight of the object resting thereon is thrown upon the outer end of the upper grip device. When it is desirable to lower the object supported by the device, I swing the hook H in a vertical position, with its top overlapping the projection H² and its lower end resting on the other projection H². The fulcrum of the lever C will then be at the pivotal point of the hook H, and a downward movement thereof will elevate the outer ends of both of the grip devices, which will cause them to release their grasp of the standard.

Having thus described the construction and operation of my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a lifting-jack, the combination of a smooth upright standard, a base for the standard, a slotted lever placed on the said standard, two arms pivotally attached to the shorter end of the said lever at slight distances apart, the one extending upwardly and the other downwardly, a grip device pivotally attached to each arm and composed of a bar having a slot at the end extended therethrough at an angle, and a coil-spring connected with the lever and with the lower grip device to normally elevate the latter, to operate in the manner set forth.

2. In a lifting-jack, the combination of a smooth upright standard, a base for the standard, a slotted lever placed on the said standard, two arms pivotally attached to the outer end of the said lever at slight distances apart, the one extending upwardly and the other

downwardly, a grip device pivotally attached to each arm and composed of a bar having a slot at its end, extended therethrough at an angle, a coil-spring connected with the lever and with the lower grip device to normally elevate the latter, and a hook pivoted to the said lever between its central portion and the inner one of the said arms, which hook is adapted to engage the slotted ends of both of the grip devices in such a manner that a downward movement of the said bar will cause the said hook to press downwardly upon the grip devices, for the purposes stated.

3. In a lifting-jack, the combination of a smooth upright standard, a base for the standard, a slotted lever placed on the said standard, two arms pivotally attached to the outer end of the said lever at slight distances apart, the one extending upwardly and the other downwardly, a grip device pivotally attached to each arm and composed of a bar having a slot at its end, extended therethrough at an angle, a coil-spring connected with the lever and with the lower grip device to normally elevate the latter, a hook pivoted to the said lever between its center and the inner one of the said arms, which hook is adapted to engage the slotted ends of both of the grip devices in such a manner that a downward movement of the lever will cause the said hook to press downwardly upon the grip device, and a rod pivotally attached to the base of the standard and having a sliding adjustable connection with the object to be elevated, substantially as set forth.

4. A lifting-jack for leveling thrashing-machines and analogous uses, comprising a tubular upright standard supported on a suitable base, a bar pivotally connected with the said base and having a sliding pivotal connection with the thrashing-machine, the lever and grip devices constructed and combined as set forth, means for connecting the upper grip device with the thrashing-machine in such a manner as to provide a limited vertical movement relative thereto, means for elevating the slotted end of the lower grip device when released, and the hook, substantially as shown, adapted to engage the upper and lower grip devices simultaneously to provide means for lowering the grip devices relative to the standard, substantially as and for the purposes stated.

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Witnesses:

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