(No Model.)

E. & A. G. HAYFORD.

LIFTING OR LOG JACK.

No. 525,706. Patented Sept. 11, 1894.

Fig. 1.

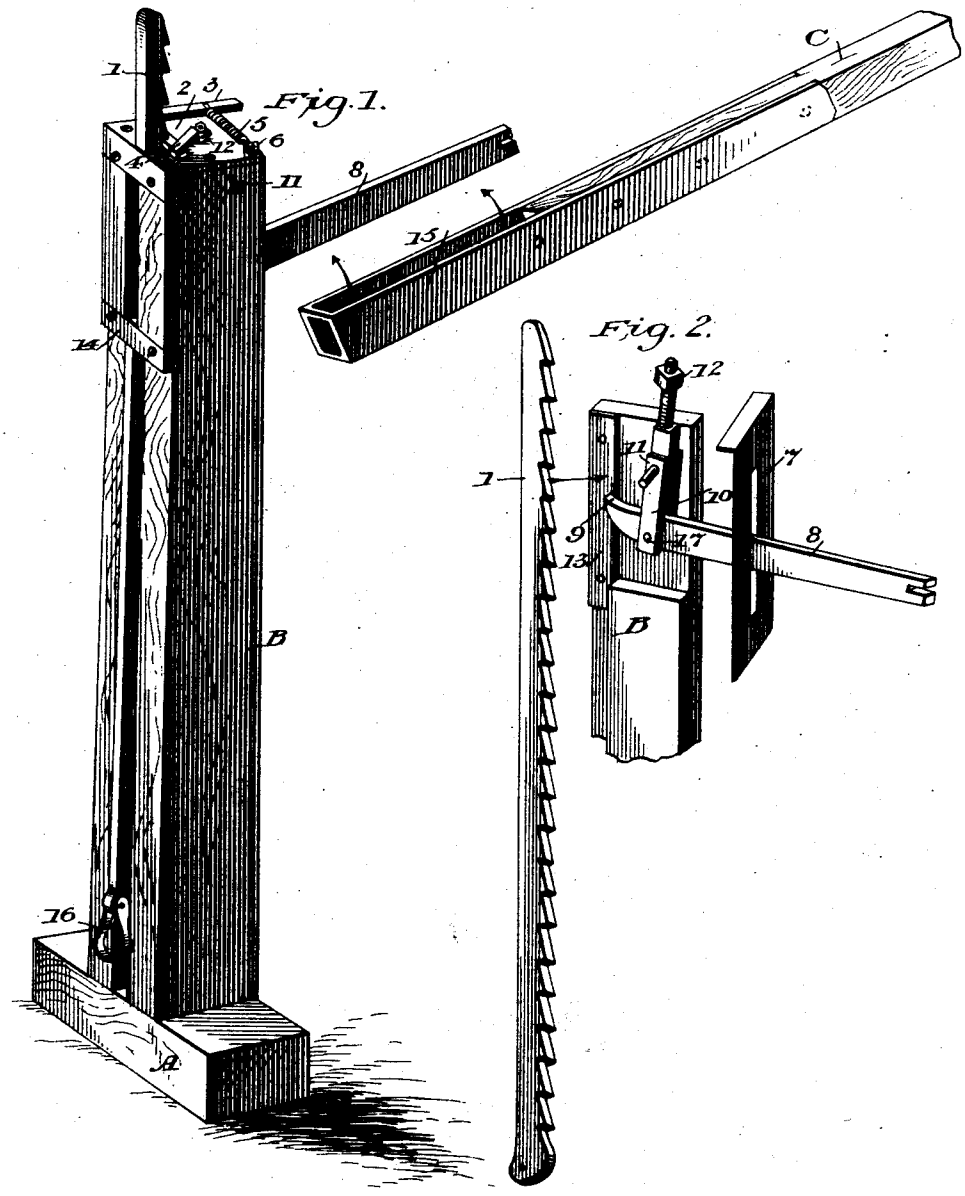

Fig. 2.

Witnesses.

William C. McClure

Louis Peiss

Inventors.

Eugene Hayford.

Arthur G. Hayford.

UNITED STATES PATENT OFFICE.

EUGENE HAYFORD AND ARTHUR G. HAYFORD, OF SPOKANE, WASHINGTON.

LIFTING OR LOG JACK.

SPECIFICATION forming part of Letters Patent No. 525,706, dated September 11, 1894.

Application filed February 7, 1894. Serial No. 499,391. (No model.)

To all whom it may concern:

Be it known that we, EUGENE HAYFORD and ARTHUR G. HAYFORD, citizens of the United States, residing at Spokane, in the county of Spokane and State of Washington, have invented a new and useful Lifting or Log Jack for Lifting Heavy Weights, of which the following is a specification.

Our invention relates to lifting heavy weights, such as logs, or any heavy objects to which it may be attached, but more especially to the lifting of logs for the purpose of placing them in a convenient position for sawing. We attain this object by the jack illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of the entire machine; Fig. 2, a top and interior view as it appears after removal of one-half of the top of the standard B, and all of the cap-plate 2.

Similar letters and figures refer to similar parts throughout the several views.

The standard B, resting on the base A, with the extension lever C constitutes the wood work of the machine, as seen in Fig. 1.

In Fig. 2, the lever 8, after passing through the slot in slotted plate 7, is secured by, and turns upon the lever bolt 17, between the two hangers 10. The hangers 10, carrying the lever 8, play upon the hanger bolt 11, which passes through the standard B, near its top. This arrangement allows of a swinging motion of the lever by which means the nip 9, at the end of the lever is thrown into and withdrawn from the teeth of the lifting bar 1.

The hanger bolt 11, passes through, and is supported in the middle by the hanger bolt support 12, which passes through and is secured by its nut to the cap-plate 2, Fig. 1. This hanger-bolt support is merely to prevent the bending of the hanger bolt under great weight.

The plate 13, Fig. 2, is simply a chafing plate to prevent the nip 9 from chafing the wood of the standard B.

The standard B, is composed of two equal sides, a portion of the back of each side being cut away, so that when the two sides are spiked together in the completed standard a groove is formed for the reception of the lifting bar 1, as shown in Fig. 1. The interior of the top of each side is also cut away to form a place for the lever and its hangers.

The weight to be lifted is attached to the clevis 16, which turns upon a bolt or pin at the lower end of the lifting bar 1, or in cases where the clevis is not the most convenient attachment for the weight, a shoe, or other contrivance may be used in place of the clevis.

The top of the standard B, projects slightly at the back so as to allow the clevis or shoe, with the attached weight to move upward and outside of, and without chafing the standard.

The lifting bar 1, is held in position by the guard-plate 14, and the back portion of the cap-plate 2, which also forms a guard-plate.

The cap-plate 2 covers the top of the standard B, leaving a slot at the back through which the lifting-bar moves. The ratchet-catch 3, having the form of a right angle is pivoted at the angle to the cap-plate 2, and is held in position against the lifting-bar 1, by the ratchet-catch spring 5, which has one end attached to the cap-plate 2, the other end being fastened to the arm of the ratchet-catch 3. The action of this spring upon the arm to which it is attached throws the other arm of the ratchet-catch under the teeth of the lifting-bar, as the lifting-bar is raised by means of the lever, and this prevents the weight from falling while a new nip is being taken.

To prevent the ratchet-catch from being moved upward with the lifting-bar, the arm which plays upon the bar is held down by the ratchet-catch guard 4, one end of which is fastened to the cap-plate by a screw, the other end being held by the nut of the hanger bolt support 12.

The extension lever 15 may be slipped on or off the lever at pleasure, according as it may be desired to increase the lifting power of the machine. It is secured to the lever by the means of the extension lever iron 15, which is bolted to the extension lever and has a slot at the end through which the lever passes, the lever itself being slotted at the end to fit a bolt which passes through the extension lever iron from side to side. This arrangement secures the extension lever in place when in use, and also admits of its being easily and quickly adjusted.

The extension lever is intended to be used only when necessary to increase the power of the machine in cases where the weight to be lifted requires additional power. By extend-

ing the lever the power may be increased as desired.

The clevis 16, as shown in Fig. 1, is adapted to the lifting of logs only, or other weights to which the machine may be attached by its use. In other cases the manner of attaching the weight may be varied to suit the character of the weight to be lifted. The manner of attaching the machine to the weight, however, is not a part of our invention, and forms no part of our claim.

What we do claim as our original invention, and what we desire to secure by Letters Patent, is as follows:

The combination, with the base A, and standard B, of the lifting-bar 1 provided with ratchet-teeth and adapted to slide in said standard, the lever 8 hung by the hangers 10 and adapted to engage the teeth of the lifting-bar, the engaging end of the lever and its attachments to the standard being inclosed in a bifurcated portion in the upper part of said standard, the lever extension 15, provided with a socket to engage the end of said lever, the hangers 10 and bolt 12 for supporting from the cap-plate the lever at its fulcrum, the cap-plate 2, the angular spring-actuated ratchet-catch 3 pivoted to the cap-plate, the guard plate 14 confining the lifting-bar in the standard and to the slotted plate 7, all substantially as shown and described.

EUGENE HAYFORD.
ARTHUR G. HAYFORD.

Witnesses:
LOUIS REISS,
WILLIAM C. MCCLURE.