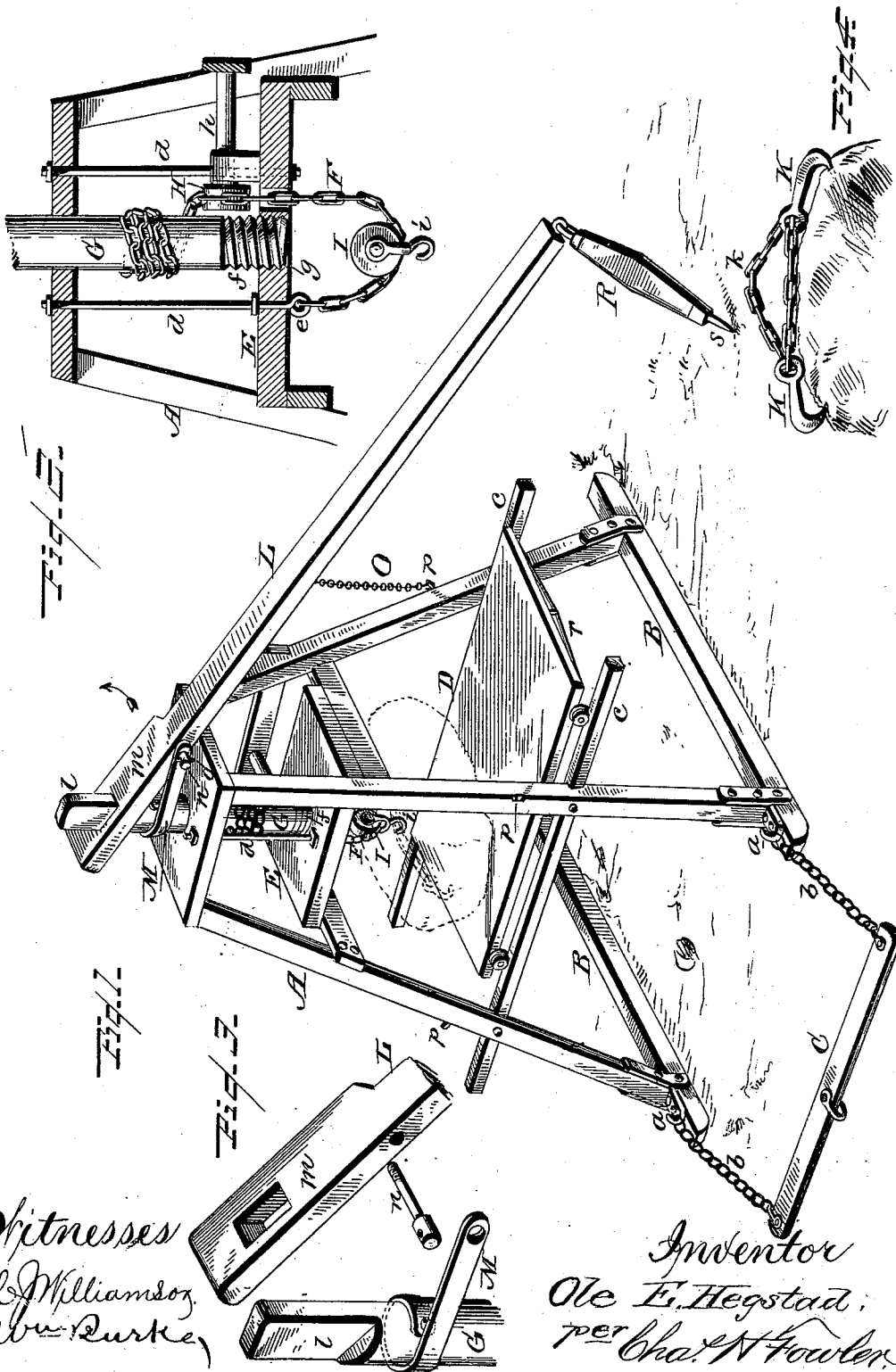


(No Model.)

O. E. HEGSTAD.
HOISTING MACHINE.

No. 545,500.

Patented Sept. 3, 1895.



Witnesses
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UNITED STATES PATENT OFFICE.

OLE E. HEGSTAD, OF APPLETON, MINNESOTA.

HOISTING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 545,500, dated September 3, 1895.

Application filed December 27, 1893. Serial No. 494,842. (No model.)

To all whom it may concern:

Be it known that I, OLE E. HEGSTAD, a citizen of the United States, residing at Appleton, in the county of Swift and State of Minnesota, have invented certain new and useful Improvements in Hoisting Machines or Devices; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters of reference marked thereon.

The present invention has for its object to provide a machine or device especially adapted for lifting stone or other heavy bodies and carrying them to desired place of deposit, and also capable of use in pulling stumps out of the ground, which machine or device will possess the necessary strength and durability, easily operated, and have the requisite leverage power to render it successful in its operation.

The invention therefore consists in a machine or device constructed substantially as shown in the drawings, and hereinafter described and claimed.

Figure 1 of the drawings represents a perspective view of my improved machine or device; Fig. 2, a detail view, partly in section, showing the hoisting mechanism. Fig. 3, a detail view in perspective of the upper end of the winding-post and the slotted end of the lever, showing the means for connecting them together; Fig. 4, a detail view of the grapples and chain connection, showing the grapples in position upon a stone.

In the accompanying drawings, A represents a frame of any suitable construction and size and of any desirable shape as found best adapted to the purpose, which frame is supported upon runners B.

To the frame or runners thereof are connected suitable hooks *a* or other well-known means for attaching thereto chains *b*, and to these chains is connected a draft-bar C for the convenient hitching thereto a team of horses, whereby the frame with or without its load may be transported from place to place.

The frame A is provided upon its inner sides with tracks *c* for supporting a truck D to receive the stone, stump, or other body that has been raised by the lifting mechanism

hereinafter described. The tracks *c* may be of any desired length to extend the necessary distance beyond the sides of the frame A, whereby the truck can be pulled out to a position convenient for the removal of the load from said truck.

A platform E is connected to the frame A and strongly braced by rods *d*, one of which has an eye *e* for attaching thereto one end of a hoisting-chain F, the opposite end of said chain being suitably connected to a winding-post G, having its lower end screw-threaded, as shown at *f*, to engage with screw-threaded opening *g* in the platform. This platform E may be utilized for supporting tools or any article necessary for extracting the stone or stump from the ground, as may also the truck D. A roller H is provided, which is connected at the inner end of a shaft *h* to form a support for the chain F and also a guide, so that it will wind around the post G even and not come in contact with the screw-threaded portion of the post, which would tend to impede its action. The chain F supports a grooved roller I, to which is attached a hook *i*, and to this hook is connected a short chain *k* with suitable grapples K for engaging with the stone, stump, or other body to be lifted. The end of the post G is cut away, as shown at *l*, to receive the slotted end *m* of a lever L by which the post is turned in its bearings. It should be noticed that when the post is turned the chain F is not only wound thereon, but the post bodily is raised through the medium of the screw-threaded end *f* engaging the screw-threads in the opening *g*. A compound movement of the post is thereby secured, which materially increases the lifting power and renders the operation of the device more effective.

The slotted end of the lever L is braced through the medium of the metal strap M, one end of said strap connected to the post G and extends around the same to strengthen it, and the opposite end of the strap is detachably connected to the slotted end of the lever by the pin *n* and key *o*, as shown more clearly in Fig. 3. Any means, however, may be employed to detachably connect the end of the strap to the lever, so as to admit the lever being removed when found necessary or when not required for use. The metal band or strap

M prevents the lever L from slipping on the end *l* of the post when the lever is in use and also takes the strain off the slotted end of the lever and prevents the liability of its splitting.

The frame A at its four corners is provided with pins *p* or other suitable and well-known fastening devices to receive the end of a locking-chain O, which chain is connected to the lever L, thereby preventing the lever from turning back to any considerable extent, and also the post G, which would unwind the chain F.

The lever L, which is intended to be operated by horse-power, is provided at its free end by a stake or anchor R, connected thereto in any suitable manner. This stake may be of any suitable length, and has a spur *s* upon its lower end to enter the ground, so that when the lever L is being operated and it is desired to stop the lever from turning and hold it stationary the lever is released, which will cause the spur on the stake or anchor to enter the ground, thus enabling the machine to be stopped at any moment when circumstances require.

When the machine or device is moved from place to place, the chain O is brought into use to prevent the lever L from turning; but any suitable means could be substituted for that shown with equal effect, and therefore I do not wish to be confined to the chain and pins, as herein described. The stake or anchor R, however, is to prevent the winding-post G and lever L from turning when the weight is being lifted by the chain and grapples herein described, so that the stone or other weight being lifted will be held suspended for any purpose.

The truck D, which may be of any suitable construction, is preferably provided with truss-rods *r* to increase its supporting power, and the tracks *c* are of sufficient height to bring the truck on the same plane with the wagon-body to which the stone or stump is to be transferred.

There are many changes or modifications

in the several details of construction which may be resorted to without departing from the principle of the invention—as, for instance, any suitable form of grapples may be used and any means employed for connecting the grapples to the hoisting-chain.

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

1. In a hoisting machine, the frame, the two tracks *c*, rigidly secured to its inner side, the stationary platform secured in the upper portion of the frame, and provided with a threaded opening, the top, and the two rods *d* which pass down through both top and platform; combined with the screw threaded winding post, the chain F, fastened at one end to a rod *d* and at the other to the post; a guiding pulley over which the chain passes, a lever for operating the winding post, and a truck which is placed upon the tracks after the object has been raised, substantially as shown.

2. In a hoisting machine, a frame composed of four posts, which are united at their upper ends, and have their lower ends secured together in pairs by runners B, and a hoisting mechanism applied to the top of the frame, combined with the two tracks *c* secured rigidly to the inner sides of the frame, and extending beyond its sides at both ends, and a truck D, which is only placed upon the tracks after the object has been raised, substantially as described.

3. The winding post, and the slotted lever applied to the upper end thereof, combined with the metal strap M, which has one end wound around the post, and the pin *n*, by which the outer end of the strap is secured to the lever, substantially as set forth.

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

OLE E. HEGSTAD.

Witnesses:

K. T. WANG,
GEO. C. MACK.