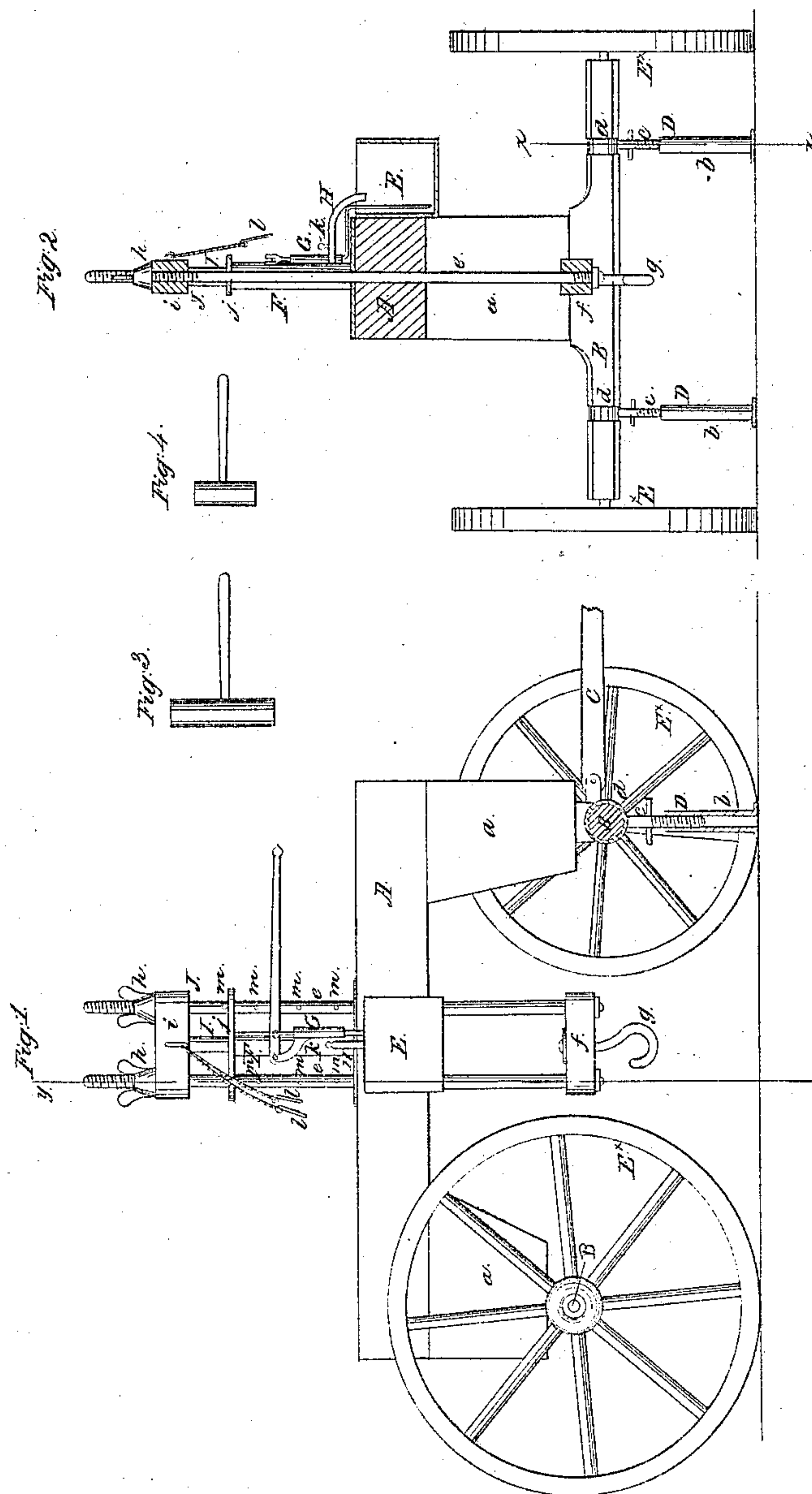


E. C. HASERICK.  
 DEVICE FOR EXTRACTING STUMPS.

No. 50,244.

Patented Oct. 3, 1865.



Witnesses:  
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# UNITED STATES PATENT OFFICE.

E. C. HASERICK, OF LAKE VILLAGE, NEW HAMPSHIRE.

## IMPROVED DEVICE FOR EXTRACTING STUMPS.

Specification forming part of Letters Patent No. 50,244, dated October 3, 1865.

*To all whom it may concern:*

Be it known that I, E. C. HASERICK, of Lake Village, in the county of Belknap and State of New Hampshire, have invented a new and Improved Device for Extracting Stumps and Elevating and Conveying Heavy Bodies; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a side view of my invention, a portion being in section, as indicated by the line *xx*, Fig. 2; Fig. 2, a transverse vertical section of the same, taken in the line *yy*, Fig. 1; Figs. 3 and 4, detached views of parts used with the same.

Similar letters of reference indicate corresponding parts.

This invention relates to the application of hydraulic pressure to a carriage for elevating heavy bodies, extracting stumps, raising stones, &c., and conveying them when elevated and retained in a suspended state to the place designed for them.

This invention consists in the employment or use of a hydraulic apparatus similar to that used in the hydraulic press, placed upon a strongly-built carriage and arranged with a water-tank, and having the axles of the carriage provided with screw-jacks, all arranged in such a manner that the desired work may be performed with but little labor and with great facility.

The carriage may be constructed of a platform, *A*, of hard wood (oak would be a good material) resting upon bolsters *a a*, which are supported by the axles *B B*, the front axle working on a king-bolt to admit of the turning of the machine. *C* is the draft-pole attached to the front axle, and *D* represents screw-jacks, which are connected two to each axle near their ends. These screw-jacks are composed of standards *b*, provided with internal screw-threads, in which screws *c* are fitted and work, the upper ends of the screws being fitted in metal bands *d*, which encompass the axles, the screws being allowed to turn freely in their bands. By this arrangement it will be seen that the carriage may be raised (jacked up) at any time so

as to relieve the wheels *E*<sup>\*</sup>, and which is most generally necessary in lifting heavy bodies or in extracting stumps, especially at the commencement of the operation where the articles are fixed, like stumps in the earth, as the carriage has a great force to resist under the action of the power applied to loosen the same.

*E* represents a water tank or reservoir attached to one side of the carriage, and *F* is a cylinder which is firmly secured on the same, and has a pump, *G*, at one side of it, the suction-tube of the pump descending into the tank *E*.

*H* is a discharge-pipe leading from cylinder *F*, and *I* is a follower placed in *F*.

*J* represents what may be termed a "lifting-frame," the same being composed of two rods, *e e*, which pass vertically through the body or platform *A* at opposite sides of the cylinder *F*, and are connected at their lower ends by a cross-piece, *f*, having a hook, *g*, secured in it. The upper ends of the rods *e e* have screw-threads cut on them, on which thumb-nuts *h* are fitted, and *i* is a cross-piece placed on said rods underneath the nuts *h*. The upper end of the cylinder *F* is provided with a horizontal flange, *j*, through which the rods *e e* pass loosely, said flange serving as a guide for the rods.

The discharge-pipe *H* of cylinder *F* is provided with a faucet, *k*, and when the device is adjusted for use the cross-piece *i* rests on the top of the follower *I*, the hook *g* being adjusted to the desired height by turning the nuts *h h*. The chain is placed around the stump or other article to be raised, and the slack of the chain taken up by turning nuts *h*, and the tank *E* being filled with water and the screws of the jacks *D* turned so as to take wholly or partially the weight of the carriage off from the wheels, the operator works the pump, thereby drawing the water from tank *E* and forcing it into the lower part of cylinder *F* underneath the follower *I*, which is raised thereby, and with it the frame *J* and the body attached to the hook *g*.

The elevated body may be retained in an elevated position by means of pins *l* inserted in holes *m* in the rods *e* underneath the cross-piece *i* and above the flange *j* of cylinder *F*. The body while thus elevated may be conveyed to the place designed for it, the jacks *D* be-



ing previously screwed down so that the carriage may rest entirely upon its wheels. The body may be let down gradually from its suspended position by allowing the water to escape gradually from pipe H into the tank E.

This device may be operated with the greatest facility, and very heavy bodies may be raised by it and transported where desired. The jack-screws when not in use may be turned up and held in a position out of the way by means of chains arranged in any proper manner. In case a greater elevation is required than the follower alone will admit of, blocks K (Figs. 3 and 4) may be inserted between the follower and the cross-piece *i*, the follower being let down at the termination of its upward movement by discharging the water from F through H, the

frame J meanwhile being held by inserting the pins *l* in the holes *m* of the rods *e*.

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

1. The application to a carriage or mounted truck of a hydraulic apparatus constructed and arranged as described, with a water-tank and a lifting-frame, or its equivalent, for the purpose of raising heavy bodies, extracting stumps, &c., and transporting the same where desired, substantially as set forth.

2. The screw-jacks D when arranged and applied to the axles in the manner substantially as and for the purpose herein specified.

Witnesses: E. C. HASERICK.

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