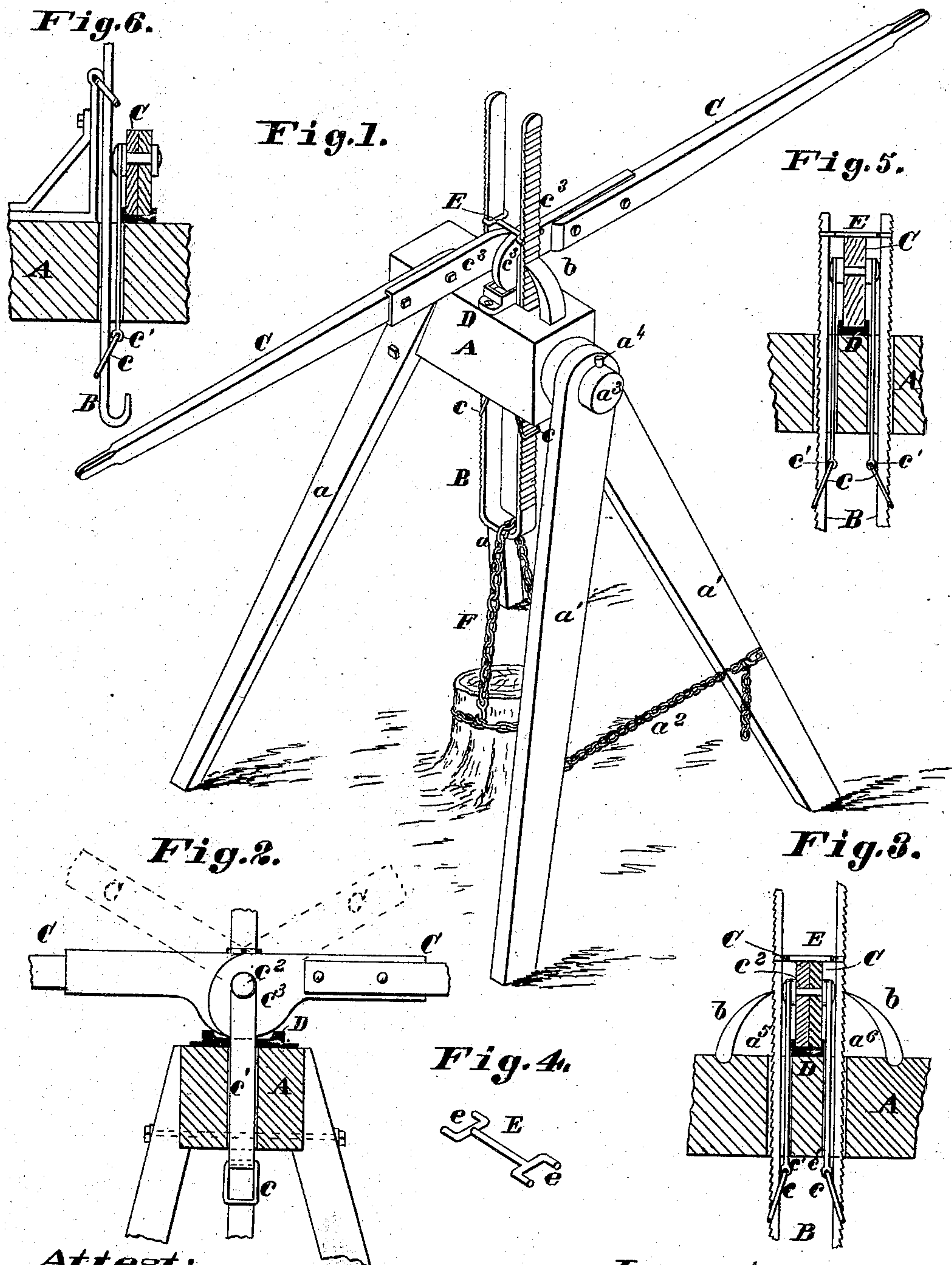


(No Model.)

J. G. PEACE.  
STUMP EXTRACTOR.

No. 252,512.

Patented Jan. 17, 1882.



Attest:  
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Geo. H. Wright.

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# UNITED STATES PATENT OFFICE.

JOHN G. PEACE, OF SALEM, MISSOURI.

## STUMP-EXTRACTOR.

SPECIFICATION forming part of Letters Patent No. 252,512, dated January 17, 1882.

Application filed November 26, 1881. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN G. PEACE, of Salem, in the county of Dent and State of Missouri, have invented a certain new and useful Improvement in Stump-Extractors, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My improvement relates to a cheap and effective machine for extracting stumps or lifting heavy objects, such as stones, &c.

My invention relates, first, to the frame or derrick, so made as to accommodate itself to any inclination or slope of the ground on which it rests.

My invention relates, secondly, to the two levers supported by the derrick and having eccentric heads pivoted together eccentrically by a pin and working on the cross-beam of the derrick.

My invention relates, thirdly, to a cup secured to or resting upon the cross-beam and forming a bearing-surface for the heads of the levers.

My invention relates, fourthly, to the hoisting-yoke working in slots or mortises in the cross-beam of the derrick, and having its outer faces serrated or notched to engage with supporting-pawls on the top of the derrick, and with hoisting clevises secured by straps or links to the levers.

My invention relates, fifthly, to a double-headed distance-bolt, for the purpose herein-after set forth.

My invention relates, sixthly, to the combination of the above elements.

In the drawings, Figure 1 is a perspective view of my improved apparatus, and Figs. 2 and 3 are detail vertical sections of the same. Fig. 4 is a perspective view of the distance bolt or bar. Figs. 5 and 6 show modifications.

The derrick consists of a block or beam, A, with stationary supporting-legs  $a$  at one end and pivoted supporting-legs  $a'$  at the other end. The reason for having two of the legs thus pivoted to the block is for the purpose of adjusting this end of the block up or down to correspond with the height of the other end when the apparatus is used on a hillside or uneven ground. The adjustment is made by moving these legs to or from each other at bottom. The legs are kept

to their adjustment by a chain,  $a^2$ , secured to one of the legs and engaging with a hook on the other. The adjustable legs are secured to the block A by a pin,  $a^3$ , inserted into or formed upon this end of the block. They are retained in place by a small transverse pin,  $a^4$ . The block A is mortised at  $a^5$  and  $a^6$  for the passage of the ends of the reciprocating hoisting-yoke B. (See Fig. 3.) The yoke consists, preferably, of a single plate or flat bar of metal bent into the proper shape, (see Fig. 1,) and having its outer faces serrated or notched, to be engaged by retaining-pawls  $b$ , whose lower ends rest in notches of the block A, (see Fig. 3,) and by clevises  $c$ , connected by straps or links  $c'$  and bolt  $c^2$  to the hoisting-levers C. The inner ends of the hoisting-levers consist of eccentric cams  $c^3$ , which preferably have bearing in a cup, D, secured to or resting upon the block A, and which are pivoted together by the strap-bolt  $c^2$ . The eccentric cams may be made of metal and secured to the levers proper, as shown. The connecting-bolt  $c^2$  passes through the heads of the levers eccentrically above the center, so that as the levers are operated the yoke will be raised. The upper ends of the yoke are prevented from clamping upon the levers under the pressure of the retaining-pawls by a distance bolt or bar, E, having heads  $e$ , which embrace the yoke in such a manner that the bolt or bar has free vertical movement.

The operation of the machine is as follows: The derrick is first placed over the stump or object to be elevated and the yoke B connected to said object by the chain F, and if the object is on a side hill the legs  $a'$  are adjusted to put the block A into a horizontal, and consequently the yoke B into a vertical, position. The levers are next operated by power being applied to their outer ends, and by the eccentric heads and the eccentric connection between them the yoke is elevated, together with the object to which it is attached, and retained at that elevation by the pawls  $b$  engaging with the notches on the yoke. If one sweep of the levers does not raise the object sufficiently, and generally it will not, the outer ends of the levers are simply raised again, which will lower the clevises  $c$  and cause them to take a hold lower down on the yoke, and the operation is repeated.



As a modification of the two operating-levers, one only may be used for light work, as shown in Fig. 5.

As a modification of the pawls *b*, a link supported by a suitable bracket (see Fig. 6) may be used, said link clasping the bar in the same way as the hoisting-links beneath. In this case the yoke is not necessarily serrated or notched.

I claim as my invention—

10 1. In a stump-extractor, the derrick consisting of block A, with stationary legs *a* and adjustable legs *a'*, as and for the purpose set forth.

2 In a stump extractor, the levers C, having eccentric heads *c*<sup>3</sup>, eccentrically connected together by the strap-bolt *c*<sup>2</sup>, as and for the purpose set forth.

3. In a stump-extractor, the cup D, secured

to or resting upon the derrick, and forming the bearing-surface of the levers, substantially as set forth.

4. In a stump-extractor, the distance bolt or bar E, having heads *e*, as and for the purpose set forth.

5. The combination of derrick A *a a'*, yoke B, levers C, with eccentric heads *c*<sup>3</sup>, pawls *b* resting upon the top of the derrick and engaging with the notches on the yoke, as and for the purpose set forth, connecting-bolt *c*<sup>2</sup>, straps or links *c'*, and clevises *c*, all substantially as set forth.

JOHN G. PEACE.

Witnesses:

E. T. WINGO,  
W. R. LOVE.