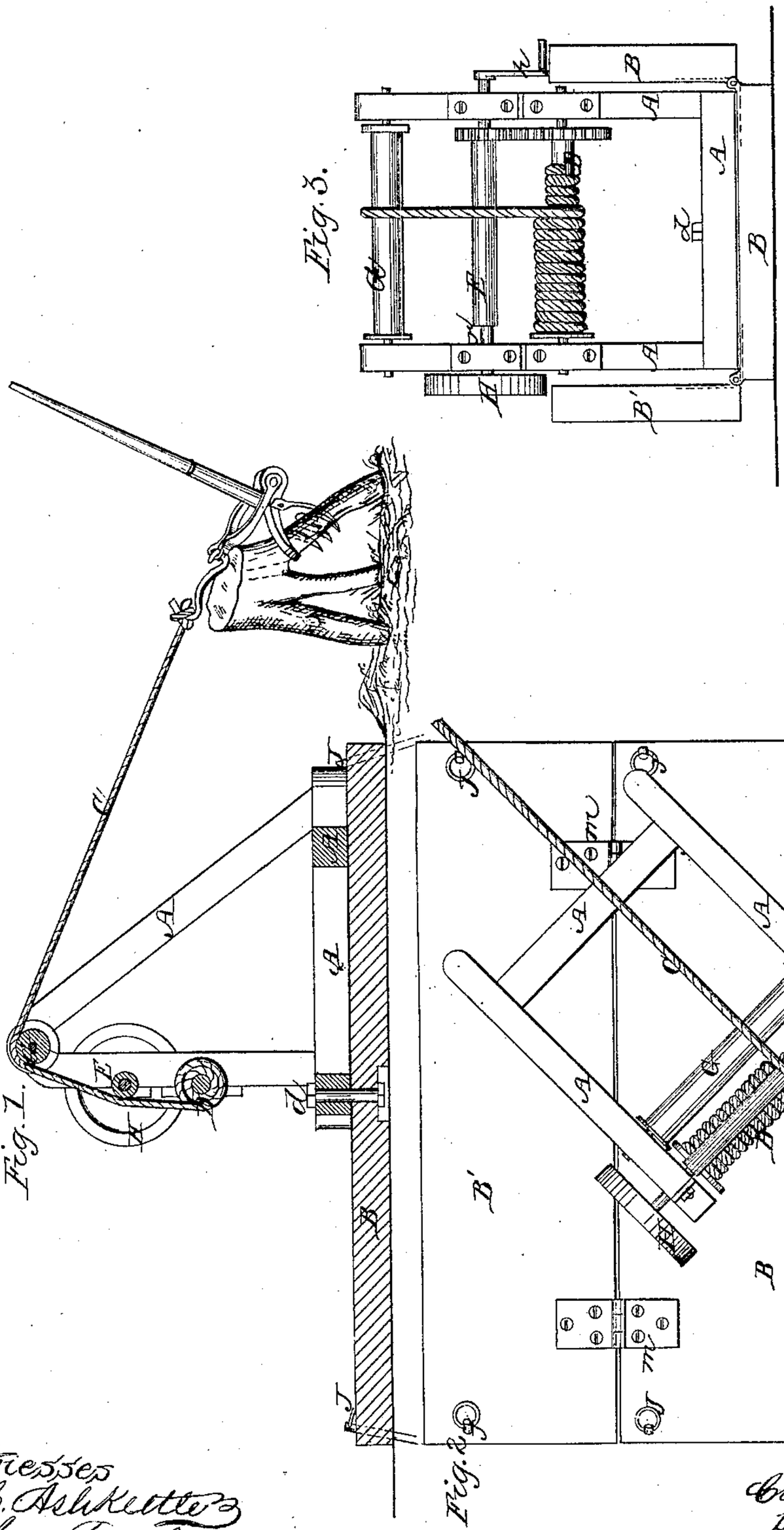
C. Munns,

Stump Elevator.

No. 78,469. Patented June 2, 1868.



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CRAWFORD MUNNS, OF NEW YORK, N. Y.

Letters Patent No. 78,469, *dated June* 2, 1868.

IMPROVEMENT IN STUMP-EXTRACTOR.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, CRAWFORD MUNNS, of the city, county, and State of New York, have invented a new and improved Stump-Extractor; 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 section of my improved stump-extractor, through the line *x x*, fig. 2.

Figure 2 is a plan view of the machine when turned so as to bear partially upon one of the leaves.

Figure 3 is an end view of the machine with the leaves turned up for transportation.

Similar letters of reference indicate corresponding parts.

This invention relates to the extraction of roots and stumps, and consists in pivoting the frame bearing the mechanism to a platform, whereby it can readily be moved on its pivot to front in any direction, together with other devices perfecting the whole, as will be hereinafter more fully set forth.

In the drawings, A is the general frame of the machine, resting on a platform, B B′ B′, and pivoted thereto by the pintle-bolt *d*, substantially as shown.

The rope C is wound by a drum, D, which is provided with a toothed wheel, *b*, engaging with the pinion *a* on the crank-shaft E, by which latter the power applied to the crank *h* is transmitted to wind up the rope C.

G is a roller, over which the rope passes, and this roller, together with the crank-shaft and drum D, has bearings in the frame A, as shown.

A fly-wheel, H, is mounted on the crank-shaft for the common purpose of a fly-wheel.

The base of the frame A extends from the pintle in the direction of the stump, and thereby provides a firm base, which sustains the strain when the stump is being extracted, and enables a single pintle to be employed, for the roller G, bearing above the drum D, serves as a point of application of the strain, which the rope C sustains, and this strain tends to bear the base of the frame A upon the platform, which action relieves the pintle-bolt from the most of the strain.

The frame A being of a general triangular form, its apex provides a point, on which the rope C will act to bear the base upon the platform, as before mentioned, while the vertical part of the frame supplies the proper location for the drum and crank-shaft.

The platform is composed of two hinged leaves, B′ B′, attached by stout hinges, *m*, to a middle part, B, for the purpose of enabling the platform to be more easily transported by turning up the said leaves, in the manner shown at fig. 3, for, when so arranged, the machine can be placed upon a truck or cart of ordinary width and removed to another point of operation.

In the drawings only two gear-wheels are shown, which, for small stumps, would supply the power requisite, but, in practice, if greater power is desired, the drum D can be geared up by the interpolation of another shaft bearing large and small toothed wheels to gear with those shown, the drum being placed lower down in the frame for that purpose.

A shoulder, *r*, fig. 3, is formed on the crank-shaft for the purpose of enabling the pinion *a* to be thrown out of gear with the wheel *b* when the rope is to be drawn off of the drum.

The pinion and wheel are shown thus disengaged at fig. 2.

The platform is secured from slipping on the ground, when strain is brought upon the stump, by the iron pins J, which are driven through holes in the corners of the platform, as shown.

These holes slant toward the middle point of the roller G, whereby the pins can be drawn from the ground by the rope of the machine when the platform is to be moved.

In operating my machine, the platform is placed in a central position amidst the stumps, and firmly secured by the pins J.

The rope is extended, and the claw-bar K, or other suitable claw or hook, is caught under one of the roots, as shown in fig. 1.

The crank, *h*, is turned swiftly till the slack part of the rope is taken in, which enables the fly-wheel H to gather sufficient momentum to start the stump from its hold in the ground.

The crank is then turned till the stump is extracted.

By means of the pintle *d* the frame is turned to any point; and, if the rope be sufficiently long, a large circular space can be cleared without moving the machine.

When all the stumps within the radius of the rope have been extracted, the rope is wound up so nearly that the claw can be caught under the head of the pins J, the machine being turned toward each corner for that purpose.

A few turns of the crank will draw the pins.

When the platform is put down, the pins are driven with a sledge-hammer or maul.

This machine will answer a number of purposes, such as drawing up the earth when a well is being dug, or furnishing the traction-mechanism for moving heavy bodies, as large stones and the like.

It is simple and easily constructed, and, from the principles of its construction, will sustain great strain without breaking down.

I claim as new, and desire to secure by Letters Patent—

1. The pintle *d*, in combination with a stump-extractor and its base or platform, substantially as described for the purpose specified.

2. The triangular frames A A of a stump-extractor, arranged substantially as shown and described, and secured to the base, B, by means of a pintle-bolt, *d*, or its equivalent, for the purpose set forth.

3. The hinged leaves B′ B′ and base B, in combination with a stump-extractor, all constructed, arranged, and operating substantially as shown and described for the purpose set forth.

4. The platform B, substantially as shown and described, when combined with the pintle-bolt *d* of a stump-extracting machine, all as set forth.

The above specification of my invention signed by me, this 10th day of December, 1867.

CRAWFORD MUNNS.

Witnesses:

WM. F. MCNAMARA,

ALEX. F. ROBERTS.