J. A. JEFFERS.

Stump-Puller.

No. 207,282 Patented Aug. 20, 1878.

Fig. 1.

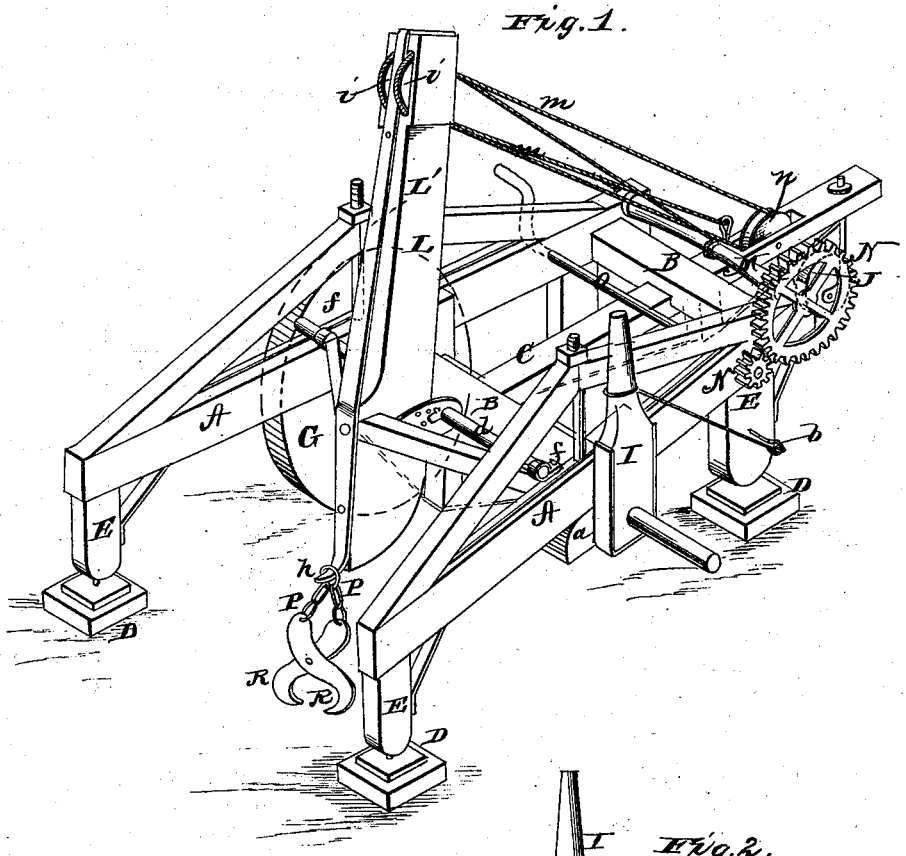



Fig. 2.

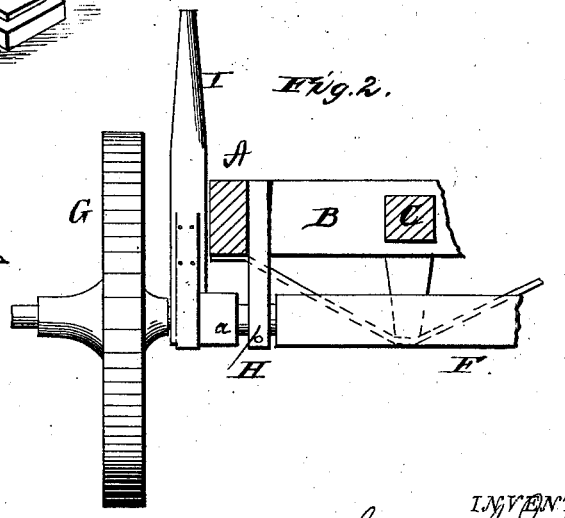
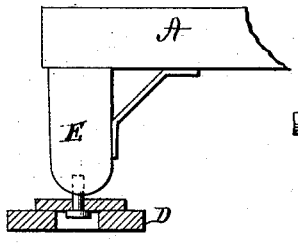



Fig. 3.




WITNESSES

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# UNITED STATES PATENT OFFICE.

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## IMPROVEMENT IN STUMP-PULLERS.

Specification forming part of Letters Patent No. **207,282**, dated August 20, 1878; application filed May 29, 1878.

*To all whom it may concern:*

Be it known that I, JAMES A. JEFFERS, of Esdaile, in the county of Pierce, and in the State of Wisconsin, have invented certain new and useful Improvements in Stump-Pullers; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

The nature of my invention consists in the construction and arrangement of a stump-puller, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a perspective view of my improved stump-puller. Fig. 2 is a cross-section of a portion thereof. Fig. 3 is a detailed view of one of the feet of the machine.

A A represent two side beams of suitable dimensions, placed slightly inclined, so as to be closer together at their front ends than at the rear. These beams are connected by cross-bars B B at the front end and at or near the center, as shown, leaving the rear open. A center beam, C, is secured to the cross-bars B B, and extends a suitable distance in front. The side beams A A are provided with upper truss-work, and the center cross-bar B and beam C are provided with under truss-work, as shown, to render the frame perfectly firm and strong.

The frame thus constructed is provided with legs E E, rigidly secured to the corners thereof, and in the lower end of each leg is swivelled a foot, D, as shown.

F is an axle-tree, provided with a wheel, G, at each end, said axle-tree being placed in slotted standards H, attached to the inner sides of the beams A A, and extending below the same. The axle F is, under each beam A, provided with a cam, *a*, and near one end a lever, I, is firmly secured on the axle. By means of this lever the axle F can be turned so as to throw the cams *a* upward against the under sides of the beams A, the lever being then held by a pin, *b*, in the front leg E on that side of the machine. This throws the machine up off from the feet D, and it is then supported upon the wheels G G and a caster-wheel, J, under the front end of the beam C. By releasing the lever I the axle at once turns by the weight of the machine upon the cams *a*, and the machine settles down upon the feet D ready for use.

L represents the operating-lever, constructed substantially in the form shown, and provided with metallic side straps *e e*, which form hinges to connect the lever to a rod, *d*, said rod passing through holes in the straps and having its bearings in boxes *f f* on the side beams A A, on a line, or nearly on a line, with the upper rear corner of the center cross-bar B. The lever L is provided with a metal bar, L′, which extends the entire length, of the lever, terminating at the lower end thereof in a hook, *h*, and at the upper end it passes around the lever and down a suitable distance on the other side. In the upper end of the lever L are arranged two pulleys, *i i*, around which is passed a rope or chain, *m*. One end of this rope or chain is fastened to the beam C, then passes around one pulley, *i;* thence around a pulley, *n*, in the beam, and then around the other pulley, *i*, and down to a windlass, M, which is placed in suitable bearings on the ends of the side beams A A. This windlass is operated by gearing N from a crank-shaft, O, as shown.

R R represent two hoops pivoted together, and provided at their upper ends with short chains P P, which are suspended from the hook *h* on the lever L.

The operation of the machine is briefly as follows: The machine being thrown upon the wheels G, J is moved to the place where needed, and then thrown upon the feet D, so as to rest firmly on the ground. The lever L is then raised in a vertical position, and the hooks R applied to the stump, so as to take a firm hold thereof. By means of the shaft O the windlass M is then rotated to wind up the rope or chain *m*, whereby the lever L is turned downward, pulling up the stump with it. The machine is then easily thrown on the wheels again to carry the stump to any place desired, where it is deposited, and the machine moved to another stump, where the same operation is repeated.

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

1. In a stump-puller, the frame consisting of the side beams A A, with upper truss-work, and the cross-bars B B and center beam C, having lower truss-work, for the purposes herein set forth.

2. In combination with the frame of a stump-puller, the legs E, with feet D, axle F, with wheels G G, the cams *a a* on the axle, and the lever I, substantially as and for the purposes herein set forth.

3. The combination, with the frame of a stump-puller, of the lever L, with straps *e*, rod *d*, bar L′, forming hook *h*, the hooks R, with chains P, rope or chain *m*, pulleys *i i* and *n*, and the windlass M, all constructed substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 24th day of April, 1878.

JAMES A. JEFFERS.

Witnesses:

N. M. LOWATER,

H. LOWATER.