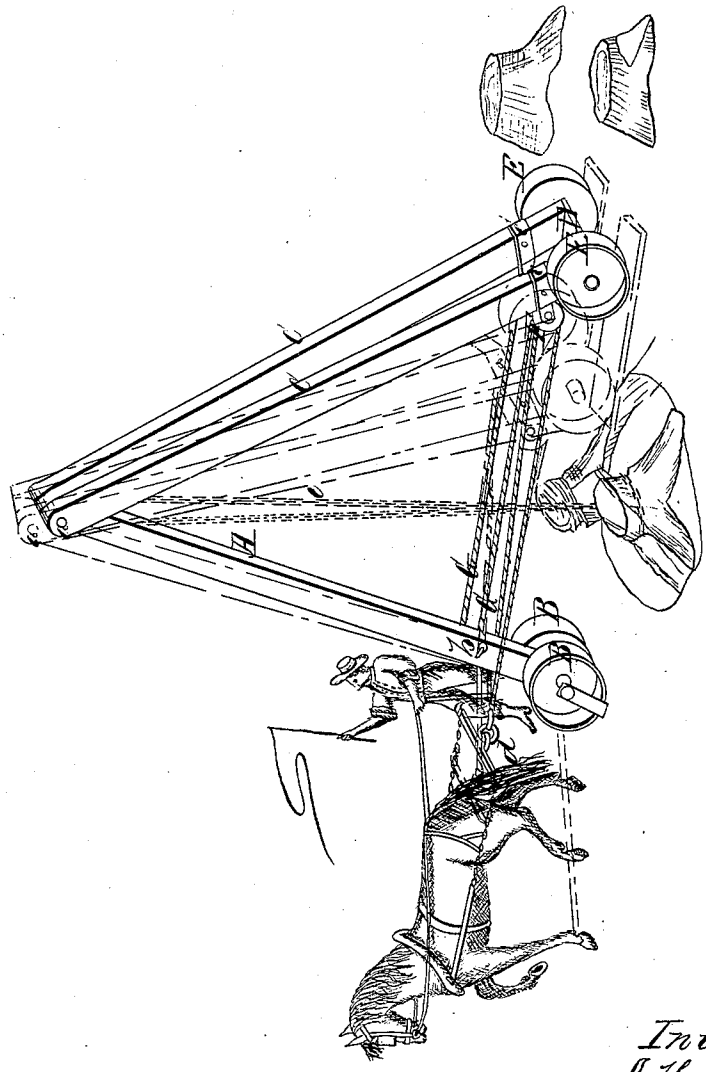
I. H. Palmer,

Stump Elevator.

No. 68,228. Patented Aug. 27, 1867.



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ISAAC H. PALMER, OF LODI, WISCONSIN.

Letters Patent No. 68,228, *dated August* 27, 1867.

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, ISAAC H. PALMER, of Lodi, in the county of Columbia, and State of Wisconsin, have invented a new and improved Grub and Stump-Puller; and I do hereby declare the following to be a full, clear, and exact description thereof, which will enable others skilled in the art to which my invention appertains to make and use the same, reference being had to the accompanying drawings, forming a part of this specification, and in which the figure is a perspective view of my machine in the act of extracting a stump from the ground.

This invention relates to a new and improved machine for pulling grubs and stumps from the ground, and consists in producing a powerful leverage by means of pivoted standards supported upon wheels, the lower ends adjusted, by means of suitable chains, nearer together or further apart, and whereby their upper ends are elevated or depressed, as will be hereinafter more fully explained.

In the drawings, A represents an inclined standard, supported upon the forward axle of the wheels B B, and pivoted to its centre in order to permit the turning of the wheels in any desired direction. The upper end of the inclined standard A is pivoted at *a*, between the upper ends of two similar inclined standards C C, whose lower ends, diverging slightly, rest upon and are firmly secured to the hind axle D of the wheels E E. By having the upper ends of the inclined standards A C pivoted together, the wheels B E are allowed to be drawn nearer together or further apart, as required when in use. G G are chains, secured at one end to the sides of the standard A, near its lower end, as seen at *b*, and, extending back to the standards C C, pass over and around the pulleys F F, pivoted to the metallic bands or clasps *c c*, secured to the lower ends of the standards C C, or they may be secured to the hind axle D, if preferred. After passing around the pulleys, the chains are carried forward upon each side of the standard A, and are connected together in front of said standard by means of a hook, *d;* the latter is nearly in line with the point of attachment *b* of the chains to the standard A. *e* is also a chain, one end of which is attached in any convenient manner to the upper end of the inclined standard A, its outer end being allowed to drop vertically down from the standards A C. A suitable tongue or pole is secured to the front axle, and to which horses may be attached to transport the machine from place to place.

The operation of my improved stump-puller is easily understood, and is as follows: When the wheels B and C are extended, the upper ends of the standards A and C are brought nearer the ground, as also the vertical chain *e*. The latter is then securely fastened to the grub or stump, as shown in the drawings. The forward wheels are blocked or secured to the ground, in order to prevent their turning or slipping, by means of any proper device attached to the machine for that purpose. The wheels B and E are then drawn together or made to approach each other by means of any suitable power applied to the ends, or to the hook *d* of the chains G G, extending over the pulley F, thereby elevating the upper ends of the standards B C and the vertical chain *e*, and completely raising the stump from the ground. This position of the machine is shown in red lines in the drawings. By this means a simple and very powerful leverage is produced, whereby the largest and strongest stumps are easily raised from the ground. Its simplicity and consequent cheapness render it much superior to the machines in common use for the same purpose. When very large stumps are to be pulled, the wheels are placed on suitable planks, upon which they may run, in order to prevent their sinking into and becoming embedded in the ground.

I do not wish to confine myself to any particular materials in the manufacture of the machine, but intend using the most convenient, and such as may be found most suitable for the purpose.

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

1. The combination of the pivoted standards A C and wheels B E, arranged and operating substantially as herein described.

2. The pivoted standards A C, wheels B E, and chains G *e*, arranged substantially as described for the purpose specified.

ISAAC H. PALMER.

Witnesses:

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