

No. 642,437.

Patented Jan. 30, 1900.

S. J. FLETCHER.
STUMP PULLER.

(Application filed Mar. 4, 1899.)

(No Model.)

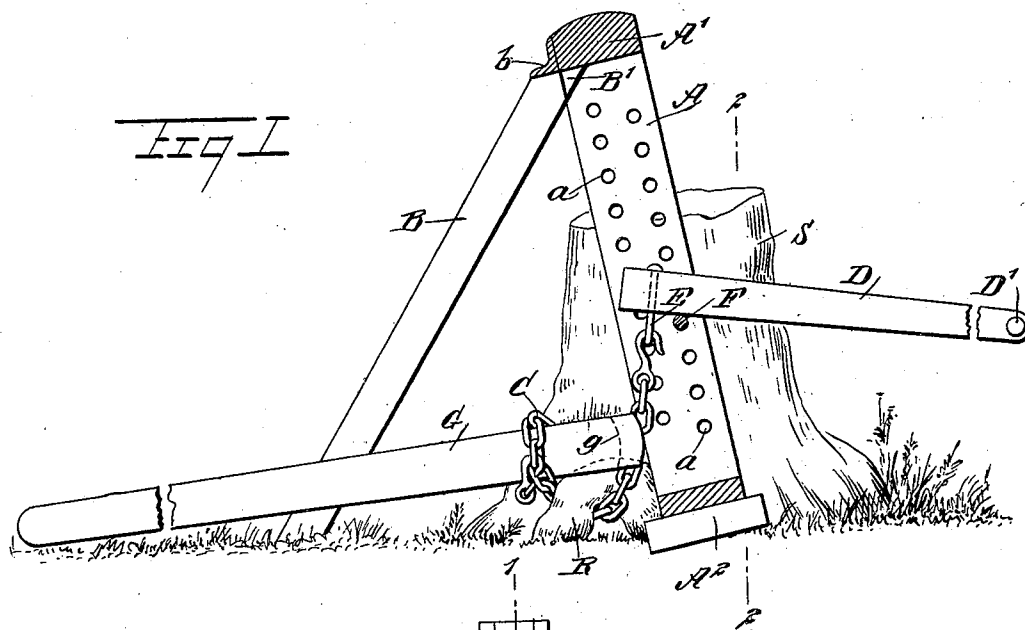


Fig 2

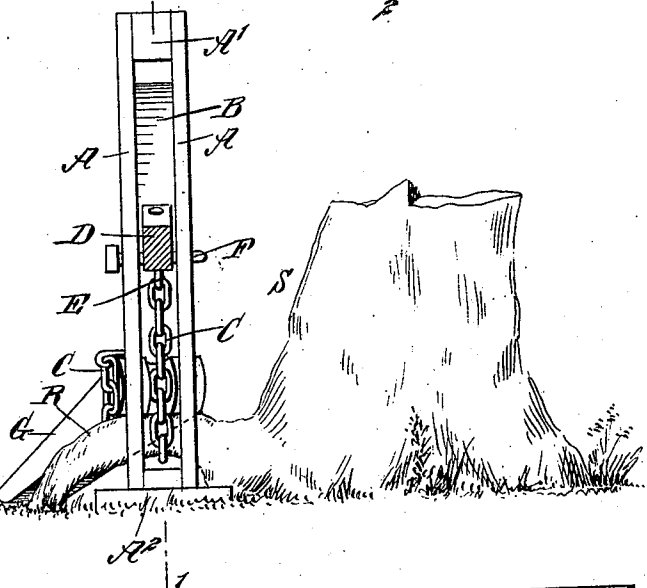
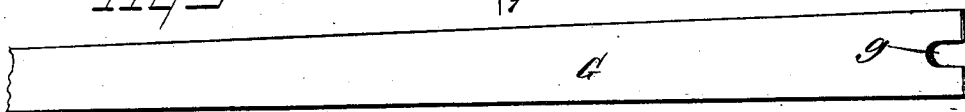


Fig 3



WITNESSES:

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UNITED STATES PATENT OFFICE.

SOLOMON J. FLETCHER, OF CEDAR FALLS, WISCONSIN.

STUMP-PULLER.

SPECIFICATION forming part of Letters Patent No. 642,437, dated January 30, 1900.

Application filed March 4, 1899. Serial No. 707,761. (No model.)

To all whom it may concern:

Be it known that I, SOLOMON J. FLETCHER, of Cedar Falls, in the county of Dunn and State of Wisconsin, have invented a new and Improved Stump-Puller, of which the following is a full, clear, and exact description.

My invention relates to improvements in devices for use in lifting heavy weights, and particularly for use in pulling stumps.

My invention comprises the novel features hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a sectional side elevation of the device on the line 1 1 in Fig. 2. Fig. 2 is a sectional view on the line 2 2 in Fig. 1; and Fig. 3 is a plan view of the brace-bar to which the lifting-chain is attached.

The object of my invention is to produce a stump-puller which may be cheaply manufactured and may be readily transported and placed in position for use and at the same time shall possess great power, so that stumps may be readily lifted out of the ground.

My device has a standard consisting of two vertical bars A, which are secured at their upper ends by a connecting-block A' and at their lower ends by a block A², said latter block being of such a size as to furnish a substantial bearing upon the ground. The two vertical members A are provided with a double row of holes *a*, adapted to receive pins F, which may be shifted from one hole to another and serve as fulcrums for the operating-lever D. To the upper end of the standard may be secured a ledge or bracket *b*, beneath which is placed the upper end of a brace B, the lower end of which rests against the ground and serves to hold the standard in upright position. The upper end of the brace B is also provided with a tongue B', which enters the space between the vertical members A and serves to hold the upper end of the brace in position.

The operating-lever D is provided with an eye or hook E, which is secured to one end thereof and to which the chain C is secured. The lever D is placed upon the fulcrum-pins F, so that the hook or eye E, to which the chain is attached, lies between the fulcrum-

pins for the two sets of holes. By pressing down upon the handle D' of the lever the eye E is raised until a second pin F may be inserted in the hole *a* of the other row next above the one occupied by the pin at that time in use as a fulcrum. This second pin is then inserted and the handle end of the lever is raised, so that the eye E is raised and permits the pin F, which was formerly in use as a fulcrum, to be shifted to the next hole above it. This alternating action of the lever D is continued until the lever has reached the upper end of the standard or until the stump has been pulled.

The chain C is preferably not secured directly to the stump, but is passed beneath a root R and is then secured to one end of a bar G. This bar has one end provided with a notch *g*, adapted to receive the upper portion of the chain C. This end of the bar is rested upon the root R, and the opposite end rests upon the ground, extending a little to one side of the standard and the brace B. By reason of the notch in the end of the bar G the chain is prevented from swinging sideways, and the standard A is thus held against side inclination without using side braces. The point of connection between the chain and bar being thus transferred to a point above the root and ground-level, if the standard should swing sidewise the chain would bring a diagonal strain upon the standard, tending to right it.

The brace B is easily removed from the standard, and the whole apparatus may thus be readily carried from place to place and quickly set up where it is desired to use it.

The apparatus is of a simple and cheap form of construction and may thus be made or obtained by any person. It is also very powerful in its action and relatively rapid. By placing the eye or hook E between the two fulcrum-pins the lever is made operative while moving in either direction and the speed of action or the power of the lift increased as desired.

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

1. A stump-puller, consisting of a standard having two separated members joined at their upper ends by a head-plate and at their lower

ends by a base-plate, and provided with adjustable fulcrums or lever-supports extending between said members, a sole brace therefor lying in substantially the plane of the standard and operating-lever and having its upper end tenoned, the tenon entering between the standard members and engaging the head-plate, the shoulders at the side of the tenon engaging the edges of the standard at their upper end, an operating-lever engaging said fulcrums, and a chain secured by one end to the lever and adapted to be secured to the stump, substantially as described.

2. A stump-puller, consisting of a standard having two parallel and separated members joined at their upper ends by a head-plate and at their lower ends by a base-plate, movable fulcrum-pins adapted to be supported by

the standard, a sole brace lying in substantially the same plane as the standard and having its upper end tenoned, the tenon entering between the side members of the standard and engaging the head-plate, the shoulders at the side of the tenon engaging the bars of the standard, an operating-lever engaging said fulcrum-pins, a lifting-chain secured by one end to the lever, and a bar adapted to receive the other end of the chain and provided with a notch at one end adapted to embrace the lifting-chain, substantially as described.

SOLOMON J. FLETCHER.

Witnesses:

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LAKE BLANK.