

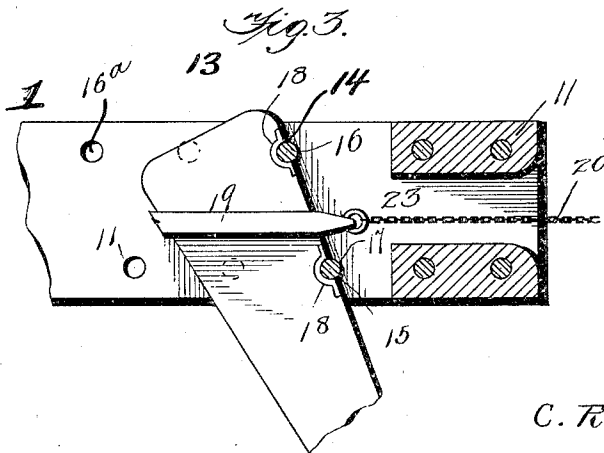
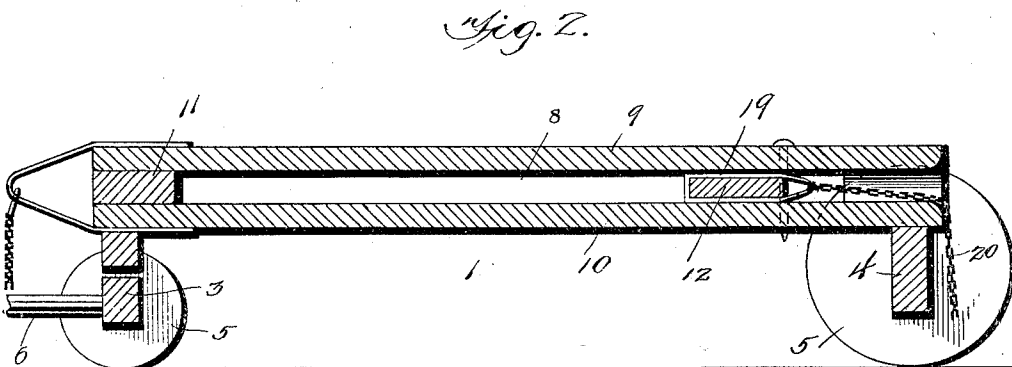
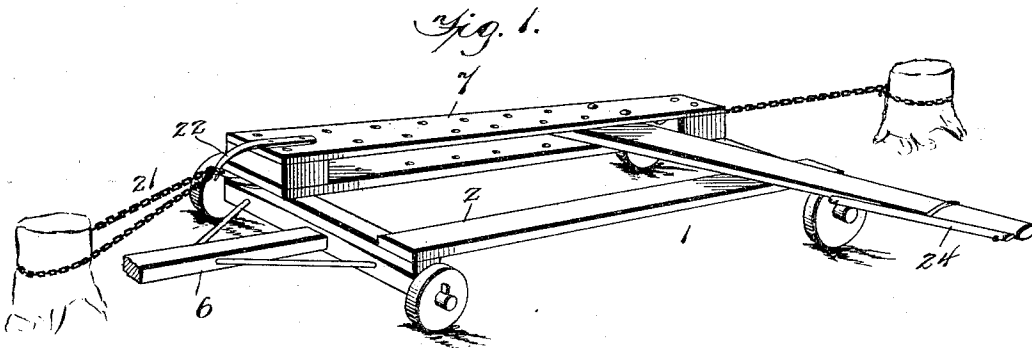
No. 696,593.

Patented Apr. 1, 1902.

C. R. REDMAN.
STUMP EXTRACTOR.

(Application filed Oct. 16, 1901.)

(No Model.)



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UNITED STATES PATENT OFFICE.

CHARLEY R. REDMAN, OF ABERFOYLE, TEXAS.

STUMP-EXTRACTOR.

SPECIFICATION forming part of Letters Patent No. 696,593, dated April 1, 1902.

Application filed October 16, 1901. Serial No. 78,876. (No model.)

To all whom it may concern:

Be it known that I, CHARLEY R. REDMAN, a citizen of the United States, residing at Aberfoyle, in the county of Hunt and State of Texas, have invented certain new and useful Improvements in Stump-Extractors, of which the following is a specification.

This invention relates to an improved stump-extracting machine, and has special reference to that type of power-machines which, while particularly designed for extracting or pulling stumps, may be utilized for power hoisting or power purposes generally—such, for instance, as raising stones or other weights, moving houses, and for analogous uses.

To this end the invention contemplates a simple and thoroughly efficient machine of the character described of a portable nature, so as to be easily moved from point to point, and comprising means for the development of great power with a minimum exertion on the part of the animal or animals used to operate the machine and also within a comparatively small compass.

With these and many other objects in view, which will more readily appear as the nature of the invention is better understood, the same consists in the novel construction, combination, and arrangement of parts herein-after more fully described, illustrated, and claimed.

In the accompanying drawings, Figure 1 is a perspective view of a stump-extracting machine embodying the improvements contemplated by the present invention. Fig. 2 is a longitudinal sectional view of the machine, the line of section being through the longitudinally-disposed and horizontally-slotted fulcrum-casing. Fig. 3 is an enlarged detail sectional view of a portion of the fulcrum-casing, showing more plainly the coöperation of the sweep-lever with the shiftable fulcrum-pins.

Like numerals of reference designate corresponding parts in the several figures of the drawings.

In carrying out the invention the working parts of the machine are mounted upon a portable truck 1, which may be constructed in any manner suitable for the purpose and, as shown in the drawings, may essentially con-

sist of a platform or body portion 2, mounted upon the front and rear axles 3 and 4, respectively, carrying upon their spindle extremities the supporting-wheels 5, which provide for the convenient transportation of the machine in the same manner as a wagon or other vehicle. Preferably the front axle 3 is pivotally mounted and has a draft-tongue connection 6 therewith, to which a team may be harnessed in the ordinary way to provide for drawing the machine from point to point. These structural details may of course be varied without affecting the essential features of the invention, which provide for the development of power to extract stumps or for other purposes, as already indicated.

In connection with the portable truck 1 there is associated a longitudinally-disposed fulcrum-casing 7. This fulcrum-casing 7 is preferably mounted on the upper side of the platform or body portion of the truck and is arranged at one side of the longitudinal center of the truck to permit of the proper play or sweep of the power-lever over the truck, thus insuring an effective balancing of the machine when subjected to stress during operation. The fulcrum-casing may be constructed in a variety of ways, so long as the same is provided with the horizontal slot 8, running substantially the full length thereof; but a simple and practical construction of the said fulcrum-casing is shown in the drawings, and consists in forming the same of upper and lower parallel timbers or strips 9 and 10, having spacing-blocks 11 interposed between the contiguous ends thereof and rigidly united thereto in any suitable way. The said horizontal longitudinally-disposed slot 8 of the fulcrum-casing 7 loosely and adjustably receives therein one end of the horizontally-swinging power-lever 12, which is preferably of a tapered form and provided with a widened heel end 13, snugly though loosely registering within the slot 8 and provided at one edge thereof with a pair of spaced rest-notches 14 and 15, which respectively coöperate with the separate fulcrum-pins 16 and 17, which are removably inserted in the separate pin-receiving holes 16^a and 17^a, formed in the upper and lower sides of the fulcrum-casing 7 and, respectively, at opposite sides of the vertical longitudinal center of the said casing.

There are separate rows of holes 16^a and 17^a formed in the fulcrum-casing, and while the separate rows are in parallel relation the individual holes of the opposite rows are transversely disalined in order to permit of the progressive and alternate shifting of the pins 16 and 17 in the manner to be presently explained. The rest-notches 14 and 15 are preferably faced with protective metallic facings 18, and between the plane of said notches the widened heel end 13 of the lever has fitted thereto any suitable type of coupling-clevis 19, to which is connected one end of the hoist-cable 20, which cable is secured around the stump or to the other object to be drawn upon by the action of the lever. When the machine is placed in position for operation, the action of the lever is resisted by a suitable anchor connection 21, which preferably consists of an anchor-cable fastened to a fixed object or point and also to a holding-loop or equivalent member 22, fitted to one end of the fulcrum-casing 7. At the end opposite to the anchor connection 21 the fulcrum-casing is provided with a cable-opening 23, through which the hoist-cable freely runs.

In the initial operation after the hoist-cable is attached to the object the fulcrum-pins 16 and 17 are placed in the receiving-holes 16^a and 17^a, respectively, which are nearest to the end of the casing through which the hoist-cable works. The team or single horse, as the case may be, which is attached to the outer swinging end of the power-lever through the medium of a whiffletree or equivalent connection 24, is started, thus placing the fulcrum of the lever directly upon the pin 16, which may therefore be termed the "main fulcrum-pin," and as the lever is swung on the arc of a circle the same moves away from the other auxiliary pin 17 until it passes the next succeeding receiving-hole 17^a for such pin. Then the said pin 17 is inserted into the said next succeeding receiving-hole, thus holding the power-lever in the position to which it has been advanced and permitting the shifting of the other main fulcrum-pin, which has to be

also advanced to the next succeeding receiving-hole 16^a after the lever has of course been turned backward upon the pin 17 to uncover the next succeeding hole 16^a for the main fulcrum-pin. This alternate shifting of the fulcrum-pins is continued until the stump has been extracted or any other object has been moved the desired distance.

From the foregoing it is thought that the construction, operation, and many advantages of the herein-described hoisting or power machine will be readily apparent without further description, and it will be understood that various changes in the form, proportion, and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

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

In a machine of the class described, the portable truck, a horizontally-slotted casing carried by the truck and provided with a cable-opening at one end, said casing also having in the upper and lower sides thereof separate parallel rows of pin-receiving holes, the holes of the opposite rows being transversely disalined, main and auxiliary fulcrum-pins shiftably associated with the opposite rows of the holes, a horizontally-swinging power-lever having its heel end working in the slot of the casing and provided with spaced rest-notches cooperating, respectively, with the separate pins, a clevis fitted to the lever between its notches, a hoist-cable extending through the end opening of the casing and connected with the said clevis, and an anchor connection at the end of the casing opposite the said cable-opening.

In testimony whereof I affix my signature in presence of two witnesses.

C. R. REDMAN.

Witnesses:

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