(No Model.)

H. J. MOHME.

STUMP PULLER.

No. 457,054. Patented Aug. 4, 1891.

Fig 1

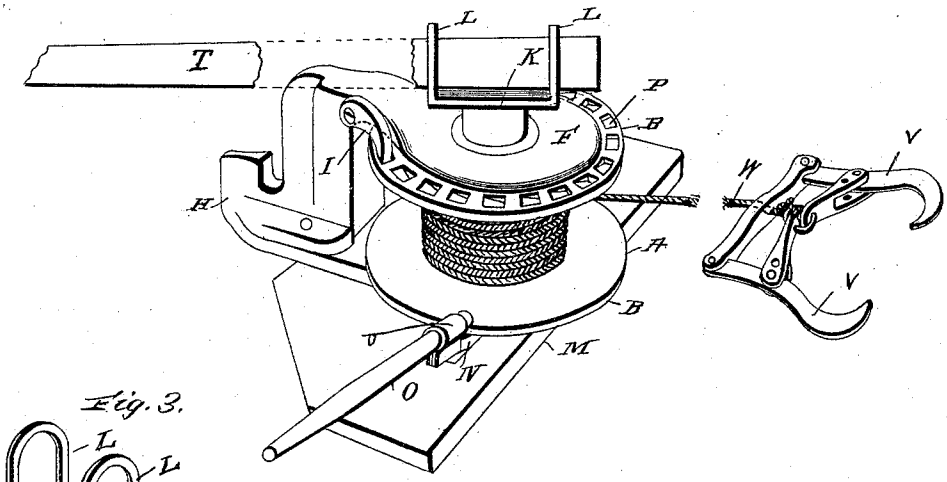


Fig. 3.

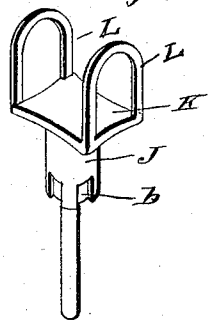
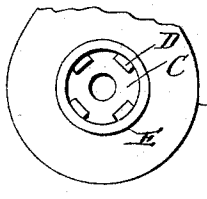


Fig. 2.

Fig. 4.



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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

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STUMP-PULLER.

SPECIFICATION forming part of Letters Patent No. 457,054, dated August 4, 1891.

Application filed October 23, 1890. Serial No. 369,034. (No model.)

To all whom it may concern.

Be it known that I, HENRY J. MOHME, a citizen of the United States, residing at Sigourney, in the county of Keokuk and State of Iowa, have invented certain new and useful Improvements in Stump-Pullers; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention has relation to improvements in stump-extractors; and it consists in the construction, novel combination, and adaptation of devices, hereinafter described, and particularly pointed out in the claim appended.

In the accompanying drawings, Figure 1 is a perspective of my improved extractor, illustrated in connection with my improved grip-tongs for extracting short stumps. Fig. 2 is a view in which the ground plate and drum are illustrated in vertical section and the other parts in elevation. Fig. 3 is a detail perspective view of the axis-section carrying the clutch and the sweep-loops. Fig. 4 is a top plan view of the drum, illustrating the recess or socket therein and the inwardly-directed lugs at the bottom of said socket.

Referring by letters to the said drawings, and more particularly to Figs. 1, 2, and 3 thereof, A indicates the winding-drum or windlass of my improved extractor, which is provided with the upper and lower flanges B, of the ordinary construction. In the upper side of the upper flange of the drum I form adjacent to the periphery thereof a series of notches P, inclined, respectively, in one direction and designed for the engagement of a depending pawl, for a purpose presently to be described. The lower flange of the drum is provided with a depending collar *a* around its central opening, which collar takes into a journal-aperture in the lower clevis-branch, which forms the lower bearing of the said drum. In the center of the upper flange of the drum and extending down into the body thereof, I form a circular socket or recess C, as better illustrated in Fig. 2 of the drawings, which is of a depth and diameter to receive the clutch upon the axis-section presently to be described. Extending inwardly from the wall of the socket C, at the bottom thereof, are lugs D, which are arranged at intervals and are adapted to take into recesses formed in the lower end of the periphery of said clutch upon the rotatable head or crown-section. Surrounding the socket C on the upper flange is a collar or annulus E, which takes into a journal-aperture in the upper clevis-branch, which forms the upper bearing for the drum. The upper and lower bearing-sections F and G are preferably constructed as illustrated and adapted to afford bearing for the drum, as has been described, and the upper section F, as better illustrated in Fig. 1, is provided with a chain-hook H to receive the anchor-chain for fixing the extractor while in operation.

It is obvious that although the lower bearing is illustrated as constructed separately from the ground-plate of the extractor, it may be formed integral with such plate, as by such construction the strength of the machine would be increased.

Upon one side of the upper bearing-section F, I pivotally secure a depending pawl I, which engages the inclined notches in the upper face of the flange B, and by this provision it will be seen that the draft strain may be taken off the sweep T and the draft-animals rested without slacking the draft-rope.

J indicates the rotatable head or crown section, which receives the sweep T, and this crown-section J has a depending axis or reduced portion X, which is received in the central vertical socket of the drum and takes through the lower clevis-section and the ground-plate and rests upon a lever presently to be described.

The clutch portion of the section J is provided in its lower edge or periphery at intervals with recesses *b*, into which the lugs D of the drum-socket take when the said clutch assumes its operative position.

Upon the upper end of the crown-section J, I form an integral platform K, from which rise the yokes or loops L, which receive the inner end of the sweep T and secure the same to the upper section of the clutch.

The base or ground plate M of my improved extractor is slotted, as better illustrated in Fig. 2, to receive a lever N, which is adapted to disengage the clutch J from the lugs in the recess of the drum, for a purpose presently to be described. This lever N, which has its

forward end curved and extending below the lower end of the axis of the clutch is notched in its under side at a point adjacent to its handle to take over a transverse bearing-shaft *c*, fixed in the slot, and the said lever has its power end provided with a socket U to receive an operating-handle O.

By the construction described it will be seen that the drum may be locked and prevented from backward movement by the locking-pawl I taking into one of the notches P, when by raising the rotatable section J out of engagement with the lugs in the recess C, through the medium of the lever N, the team may be backed around to get a better purchase, when the clutch is allowed to fall back into engagement with the lugs in the recess and the winding may be resumed. It will also be seen that when there is not sufficient space to allow the draft-team to travel entirely about the drum the team may be rapidly backed, when they have reached the limit of space, without slacking the draft-rope.

In Fig. 1 of the drawings I have illustrated my improved grip-tongs for extracting short stumps, and by reference to the said illustration it will be seen that I have provided a construction of tongs V, which are actuated by the draft-rope W, so that when said rope is drawn taut the tongs will bite into the tree.

I am aware that in devices of the character described it is very old to construct the drums with clutches and provide means for disengaging the clutch-sections, so that the drum may at times turn free from the sweep, and therefore do not claim such devices, broadly.

Having described my invention, what I claim is—

In a stump-puller, the combination, with the drum having the central vertical aperture terminating at its upper end in the enlarged socket C and having in the base of said socket the spaced lugs D, the rotatable crown-section J, having the long stem X passing through the vertical aperture of the drum and having a platform K at its upper end provided with the vertically-disposed loops or yokes L to receive one end of a sweep, said rotatable section having the enlarged round portion beneath the platform and said enlarged portion having recesses *b* at its lower end to receive the lugs in the socket, and the pivoted lever N, having its toe curved to engage the under side of the stem of the rotatable section *a* and adapted to separate said recesses and studs, substantially as and for the purpose specified.

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

H. J. MOHME.

Witnesses:
P. G. DAUT,
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