(No Model.)

W. V. HOAG.

STUMP EXTRACTOR.

No. 429,761. Patented June 10, 1890.

Fig. 1.

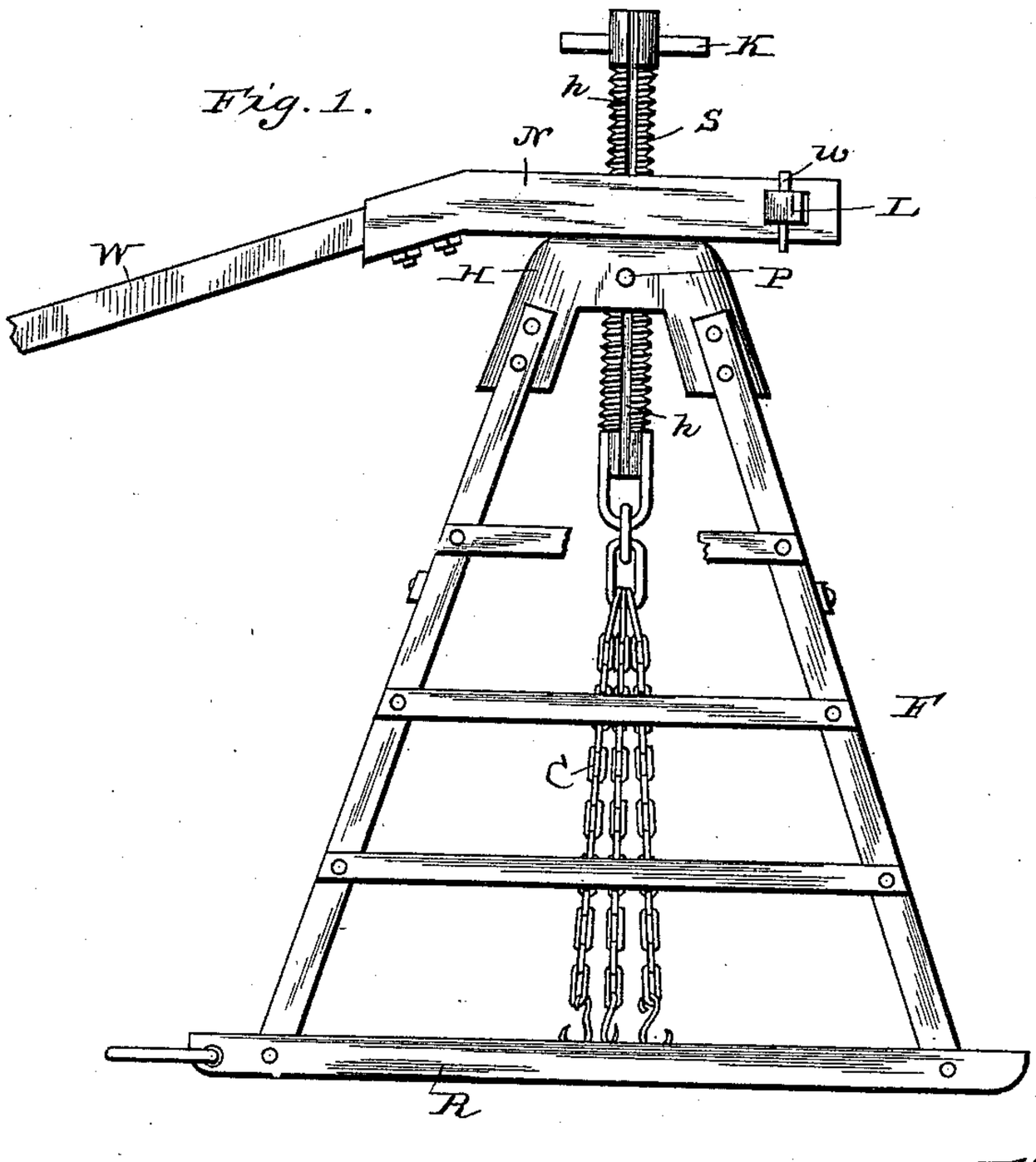


Fig. 4.

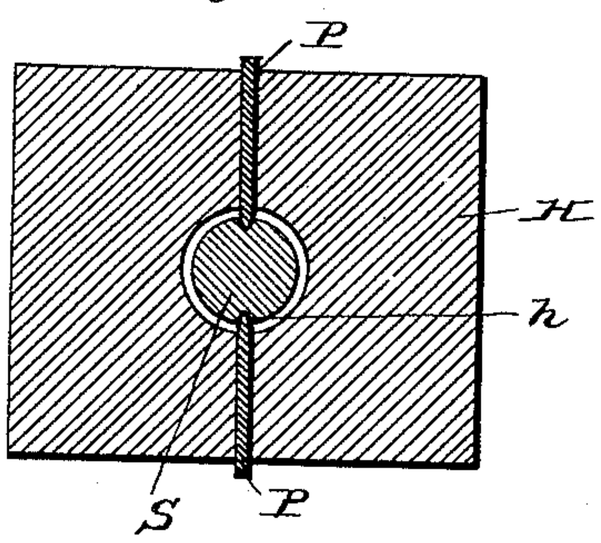


Fig. 2.

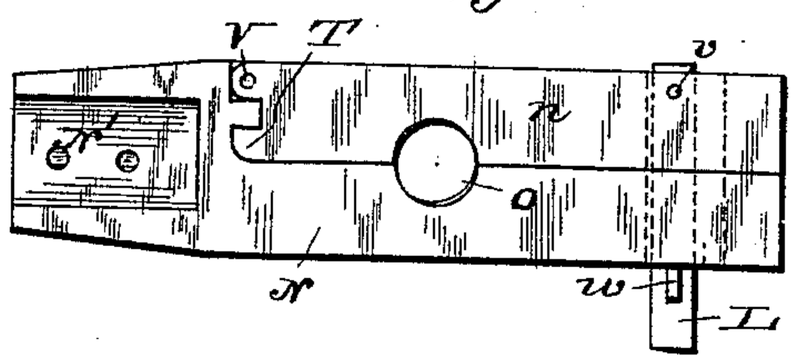
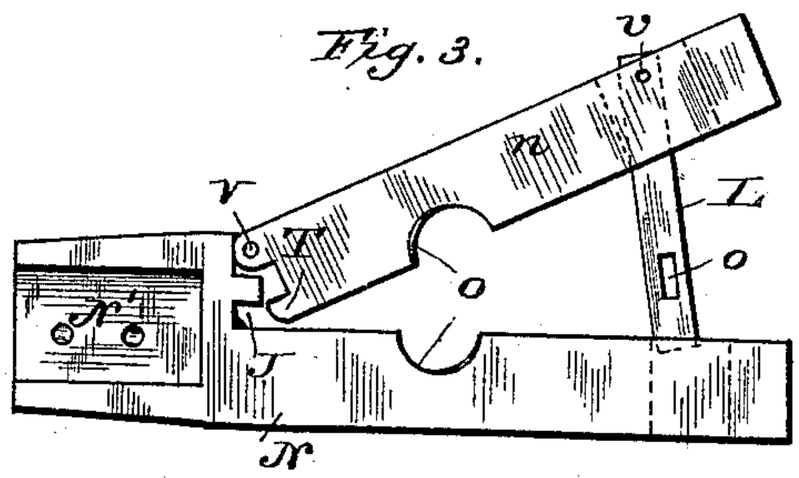


Fig. 3.



Witnesses

Harry L. Amer.

N. L. Collamer.

Inventor

Winfrey V. Hoag.

By his Attorneys

C. A. Snow & Co.

UNITED STATES PATENT OFFICE.

WINFREY VERNON HOAG, OF SALISBURY, ILLINOIS.

STUMP-EXTRACTOR.

SPECIFICATION forming part of Letters Patent No. 429,761, dated June 10, 1890.

Application filed March 21, 1890. Serial No. 344,811. (No model.)

To all whom it may concern:

Be it known that I, WINFREY VERNON HOAG, a citizen of the United States, residing at Salisbury, in the county of Sangamon and State of Illinois, have invented a new and useful Stump-Extractor, of which the following is a specification.

This invention relates to stump-extractors, the object being to provide a device in which the nut may be entirely disengaged from the screw and the latter allowed to fall to repeat the operation or to lift a new stump.

To this end the invention consists of a screw having a longitudinal slot, a frame-work having a hole through which said screw passes loosely, and a pin in the side of said hole engaging said slot, a divided nut turning on the top of said frame-work and drawing the screw upward, a sweep for turning said nut, and specific means for locking the parts of said divided nut together, as well as of certain auxiliaries and adjunctive details, all as hereinafter more fully described, and illustrated in the accompanying drawings, in which—

Figure 1 is a front elevation of the device, showing the nut in side elevation; and Figs. 2 and 3 are enlarged plan views of the nut in its closed and opened positions, respectively. Fig. 4 is a horizontal section of the head of the frame-work in a slightly-different form.

The letter F designates a frame-work mounted upon runners R, (which, however, may be wheels, if desired,) which frame-work carries a head H at its upper end, preferably of iron. Passing loosely through a vertical hole in this head is a screw S, from the lower end of which depend chains C, adapted to be connected to the stump to be extracted or rock to be raised.

The letter W designates a sweep carrying a nut N, which latter revolves upon the screw S to raise the same through the hole in the head H, all as will be clearly understood and is well known in this class of machines.

Coming now to the present invention, I prevent the screw from rotating within the head H by a pin P through said head, whose point or tip engages a longitudinal slot or groove *h* in one side of the screw. The latter is also prevented from dropping through the head by a cross-bar K, rigidly passed through its upper end, as shown.

The nut N is of approximately rectangular shape, and is of course of metal, the sweep being bolted or otherwise rigidly secured within an inclined recess N′ at one end of its body, as shown in the drawings. The body of the nut comprises a main portion (lettered N) and a supplemental portion *n*, which is pivoted to the main portion on a vertical pivot V, the dividing-line between these two portions preferably running through the center of the threaded hole or opening O, which engages the screw S. The inner end of the portion *n* has a tongue T extending throughout its vertical height, which tongue, when the parts are in closed position, engages a vertical notch J, formed in the main portion or body N of the nut. By this means much of the strain which would otherwise fall upon the pivot V is taken up by the tongue and notch, as will be understood. The free ends of these two parts or members of the nut are provided with a transverse slot, and in this slot on a vertical pivot *v* is mounted a link or latch L, which is thereby pivotally connected to the member *n* with its free end passing loosely through the member N. Said free end of the link L is provided with a transverse opening *o*, through which is passed a wedge *w*, as shown in the drawings, and by this means the two members of the nut are held firmly together at their outer ends, their inner ends being connected in the manner above set forth.

In the operation of this device, the frame-work having been hauled to a position over the stump, the chains C are engaged around and beneath the same, the nut is engaged upon the screw above the head of the frame, the team connected to the sweep, and the free end of the latter carried around the frame-work until the nut has drawn the screw upwardly in the head sufficiently and the stump has been pulled. The wedge is then removed, the parts of the nut opened and removed from the screw, whereby the latter will be allowed to fall, or the team may be attached to the frame-work and the whole device, together with the stump, moved to a distant point, and the stump can be dropped here in the said manner.

In Fig. 4, where the head of the frame-work is shown in horizontal section, is represented a second groove *h* and pin P, engaging the same, which may be employed at the other side of the screw, if desired, although one pin

and one groove will answer the purpose required.

What I claim is—

1. In a stump-extractor, the combination, with the frame-work supporting a head provided with a vertical hole, a stationary pin projecting through said head into one side of said hole, and a vertical screw having a longitudinal groove, the screw passing through said hole and the groove, engaging the tip of said pin, of a divided nut engaging the screw and turning upon the head and a sweep connected to said nut, substantially as described.

2. In a stump-extractor, the combination, with the screw and means, substantially as described, for guiding it vertically and preventing its rotation, of a nut having a divided body, one member of said nut being pivoted at one end to the other member and detachably connected thereto at its free end, and a sweep secured to the nut, as set forth.

3. In a stump-extractor, the combination, with the screw and means, substantially as described, for guiding it vertically and preventing its rotation, of a nut having a divided body, one member of said nut having a tongue and the other member having a notch, said members being pivoted together at one end and detachably connected at their free ends, and said tongue entering said notch when the parts are connected, and a sweep secured to the nut, as set forth.

4. In a stump-extractor, the combination, with the screw and means, substantially as described, for guiding it vertically and preventing its rotation, of a nut having a divided body, the members of said body being pivoted together at one end and provided with a transverse recess at the other end, a link pivoted at one end in the recess in one member and passing through the recess in the other member, its protruding end having a transverse opening, and a wedge seated in said opening, as set forth.

5. In a stump-extractor, the combination, with the frame-work supporting a head, and a screw guided vertically therethrough in the manner set forth, of a removable divided nut embracing said screw above said head and having an inclined recess at one end of one of its members, and a sweep bolted in said recess, the whole adapted for operation substantially as hereinbefore described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

WINFREY VERNON HOAG.

Witnesses:

G. W. MURRAY,

T. S. CASEY.