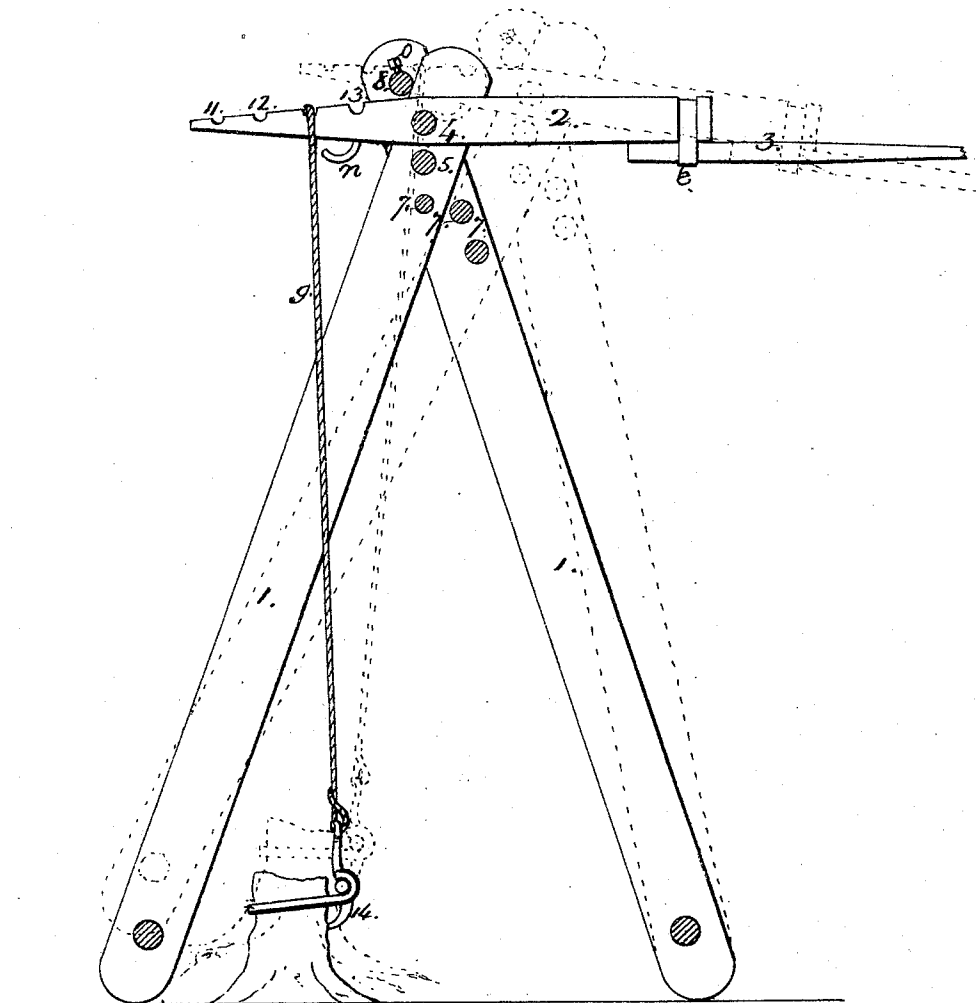


JOHN S. SWANN.

Improvement in Stump Extractors.

No. 118,981.

Patented Sep. 12, 1871.



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UNITED STATES PATENT OFFICE.

JOHN S. SWANN, OF KANAWHA COUNTY, WEST VIRGINIA.

IMPROVEMENT IN STUMP-EXTRACTORS.

Specification forming part of Letters Patent No. 118,981, dated September 12, 1871.

To all whom it may concern:

Be it known that I, JOHN S. SWANN, of the county of Kanawha and State of West Virginia, have invented a certain Machine for Lifting and Removing Bodies, Trees, Stones, &c., of which the following is a specification:

My invention relates to machines for extracting grubs, raising stones, and similar purposes; and the invention consists in a novel construction of a portable frame and levers, as hereinafter more fully described.

Figure 1 represents a vertical section of my improved apparatus.

In constructing my improved machine I first provide a frame which consists of two parts, 1 1, each part being formed of two upright posts united by rounds 4, 5, 7, and 8, a portion of these rounds passing through the uprights of both parts, thus locking the parts firmly together and making of it a single rigid frame. Upon the top of this frame I pivot a lever, 2, which turns loosely upon the round 4, which is also free to turn in its bearings in the frame so as to lessen the friction of the working joints, this lever 2 being arranged horizontally, and provided on its shorter arm with a hook, *n*, near its fulcrum or pivot, and also with a series of notches on its upper face, as indicated at 11, 12, and 13. At its opposite end this lever 2 has secured to it a strong loop or band, *e*, through which I pass a second lever, 3, this latter being free to slide to and fro through the band *e*, so that by drawing it out it forms an extension of the lever 2, and by shoving it in until its inner end engages between the rounds 5 and 7 it locks the lever 2 and renders it rigid with the frame. Above the lever 2 I locate a round, 8, which has secured upon it a bolt or hook, *o*, as shown, for a purpose hereinafter described.

To use the apparatus it is placed over the grub, stone, or other article to be raised, as represent-

ed in the drawing, and then I secure a chain, *g*, to the article, using the self-tightening clamp 14, or any similar device, for that purpose. The chain is then extended upward and secured to the short arm of lever 2, either by hooking one of its links on the hook *n* or by passing it around the lever, as shown, near its fulcrum. By pressing down on the long arm of the lever, especially with the part 3 extended, a very powerful purchase is obtained, which will loosen the grub or stone from its bed. Another chain, being secured to the grub, is passed up and fastened to the round 8 by the bolt or pin *o*, which thus holds the thing in position and prevents it from springing back. The chain *g* is then shoved further from the fulcrum, into any one of the series of notches, when the article can be further elevated if desired. The sliding lever 3 is then shoved inward until its inner end is caught and held between any of the rounds below the fulcrum, which locks the frame and lever 2 rigidly together, when the entire frame is swung over, as represented by the dotted lines, thus lifting the grub or stone from its bed.

If desired the frame may be mounted on runners or wheels for convenience in transporting it from place to place.

The apparatus thus made is extremely simple, light, and strong, and is admirably adapted to the wants of farmers and others.

Having thus described my invention, what I claim is—

The herein-described apparatus, consisting of the frame 1 1 with the pivoted lever 2 and the sliding lever 3, constructed and arranged to operate substantially as set forth.

JNO. S. SWANN.

Witnesses:

J. H. CONNELL,
T. B. SWANN.

(2.)