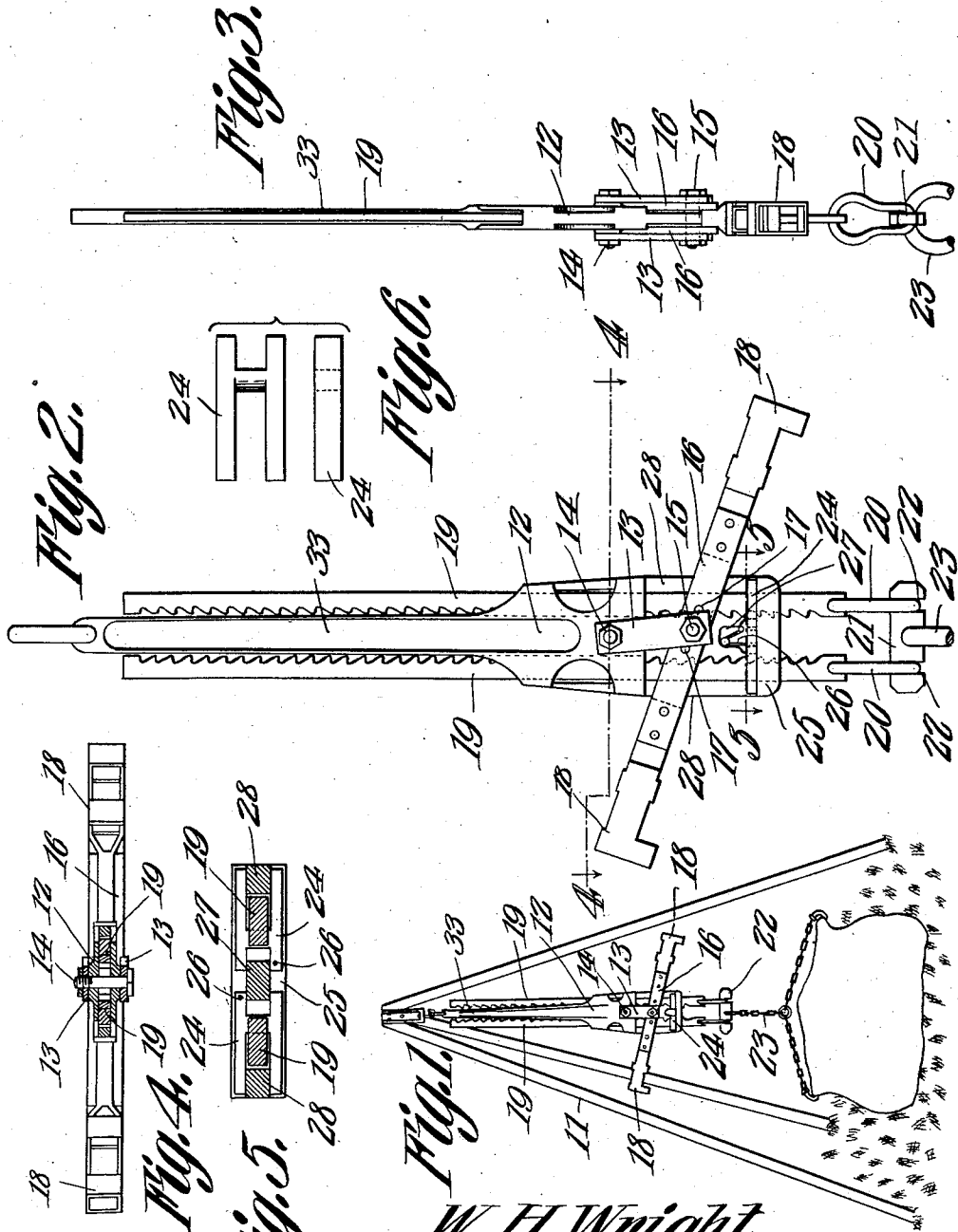


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STUMP EXTRACTOR.

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1,009,369.

Patented Nov. 21, 1911.



Witnesses  
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# UNITED STATES PATENT OFFICE.

WILLIAM H. WRIGHT, OF LACONIA, NEW HAMPSHIRE.

## STUMP-EXTRACTOR.

1,009,369.

Specification of Letters Patent.

Patented Nov. 21, 1911.

Application filed August 15, 1911. Serial No. 644,144.

*To all whom it may concern:*

Be it known that I, WILLIAM H. WRIGHT, a citizen of the United States, residing at Laconia, in the county of Belknap and State of New Hampshire, have invented a new and useful Stump-Extractor, of which the following is a specification.

This invention relates to lifting devices, and particularly to devices for extracting stumps, lifting rocks and other heavy objects, and for generally lifting or raising cumbersome objects.

The object of this invention is to provide an improved device of this character which is capable of exerting a maximum lifting power at a minimum expenditure of manual labor, being an improvement over the device shown in my former Patent No. 794,912 issued July 18, 1905.

This invention is embodied in certain details of construction, arrangement and combination of parts as hereinafter described and pointed out in the appended claims, it being understood that the invention is susceptible of alteration in its minor details of construction, within the scope of the appended claims without departing from the spirit of the invention.

The invention is illustrated in the accompanying drawings in which similar reference characters indicate similar parts, and in which,—

Figure 1 is a perspective view of the device in use. Fig. 2 is an elevation of the lifting mechanism. Fig. 3 is another elevation thereof. Fig. 4 is a section on the line 4—4 of Fig. 2. Fig. 5 is a section on the line 5—5 of Fig. 2. Fig. 6 includes a plan view and an elevation of one of the latch members.

Referring in detail to the drawings, the body of the lifting mechanism is designated at 12 comprising a suitable casting. This body or frame 12 is provided with a central upstanding arm 33 which is secured at its upper end to the top of a tripod supporting frame 11 in any suitable manner. The body 12 is provided with a pair of depending arms 28 at the lower ends of which a head 25 is provided with an upstanding stud 27 intermediate the said arms. A pair of racks 19 pass through the head 25 and body 12, the same being spaced apart and having the teeth thereof disposed inwardly. The racks 19 passing through suitable guideways in the body and head are constrained against lat-

eral movement and are permitted to freely slide longitudinally, the backs thereof resting against the arms 28.

A pendulum 13 is hung from each side of the body 12 by means of a bolt 14 passing through the body and through the upper ends of the said pendulums. To the ends of each pendulum 13 is pivoted a rocker 16 by means of a bolt 15 which passes through the lower ends of the pendulums 13 and the rocker. The lower end of the pendulum 13 terminates intermediate the body 12 and the head 25 and the rockers 16 are disposed on the opposite sides of the arms 28. To the outer ends of the pair of rockers 16 is secured a suitable socket 18 for the reception of a lever which serves as a means for vibrating the rockers. A pin 17 passes between the rockers 16 at each side of the bolt 15 or pivotal point of the rockers and within the respective racks, being adapted to engage the teeth thereof.

A pair of latches 24 which are of H-shape rest on the head 25 between the stud 27 and each of the arms 28, having the ends thereof straddling said stud and arms. A spring 26 is secured to each side of the stud 27 and is engaged with the respective latches 24 to give an outward tension to same causing the cross piece of each of the latches to engage the teeth of the respective racks.

To the lower end of each of the racks 19 is secured a link 20 and a plate 21 secured to the upper end of a chain or the like 23 having a notch 22 on its lower edge at each side of the chain 23 is adapted to engage the said links, the links entering the respective notches, whereby the lifting means can be connected to the stump, rock, or other object.

In use, a lever can be inserted into either or both of the sockets 18 to vibrate the rockers 16, which being hung on the pendulum 13 can be shifted from one side to the other as the rockers are vibrated to cause the pins 17 to alternately engage the respective racks to shift the racks upwardly thereby drawing the object upward which is attached to the chain 23. It will be noted that upon each vibration or oscillation of the rockers 16 that the chain 23 is moved upward slightly due to the rocking action given the plate 21 by the alternate action of the racks 19. This plate 21 is connected to the lower ends of the racks and at its intermediate portion with the chain 23 which

modifies the action of the lifting mechanism and is preferable over the ordinary method of connecting the chain 23 directly to one rack. The plate 21 also forms suitable means for connecting the chain 23 to the two racks and for readily detaching the same therefrom as will be understood.

What is claimed as new is:—

1. A lifting mechanism comprising a body having a pair of arms depending therefrom and a head at the lower ends of the said arms, the said head having a stud upstanding therefrom intermediate the said arms, a pair of racks passing through the said body and heads, the said racks being spaced apart with their teeth disposed inwardly, a pair of pendulums pivoted to the respective sides of the body at their upper ends and terminating at their lower ends intermediate the body and head, a rocker pivoted to the lower end of each of the pendulums, a lever socket secured to each end of the pairs of rockers, a pin passing between the respective rockers on each side of the pivotal points thereof and adapted to engage

the teeth of the respective racks, a pair of H-shaped latches resting on the head between the studs and the respective arms and having the ends thereof astraddle the said parts, springs secured to the respective sides of the stud and engaging the respective latches to force same outwardly to engage the teeth of the racks, and a chain secured to the lower ends of the racks.

2. A lifting mechanism comprising a body, a pair of racks passing through the body, means for alternately moving the said racks, a link secured to the end of each of the racks, a plate having notches in the ends thereof engaging the said links, and a chain secured to the said plate intermediate the said links.

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

WILLIAM H. WRIGHT.

Witnesses:

NAPOLEON J. DYER,  
FRANK P. TILTON.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."