No. 800,700. PATENTED OCT. 3, 1905.

C. A. WHIPPLE.

STUMP PULLER.

APPLICATION FILED SEPT. 6, 1904.

2 SHEETS—SHEET 1.

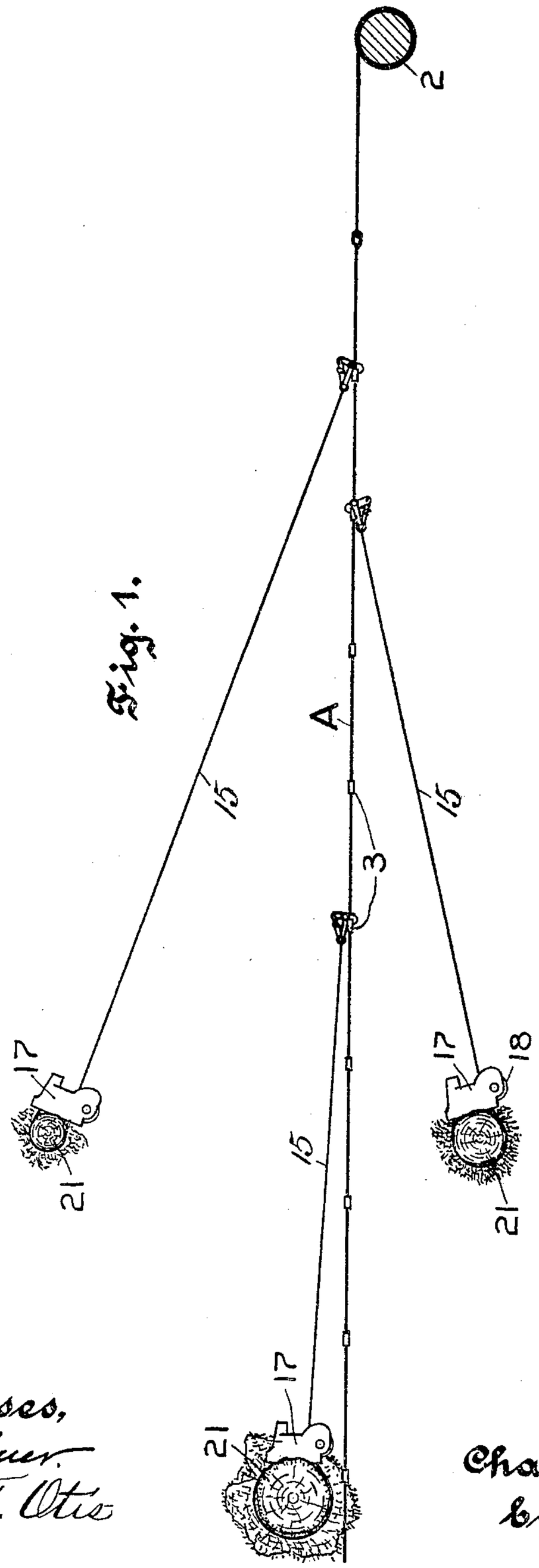

Fig. 1.

Witnesses,
W. F. Palmer.
Emily F. Otis

Inventor,
Charles A. Whipple:
by Lothrop & Johnson
his Attorneys.

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2 SHEETS—SHEET 2.

Fig. 2.

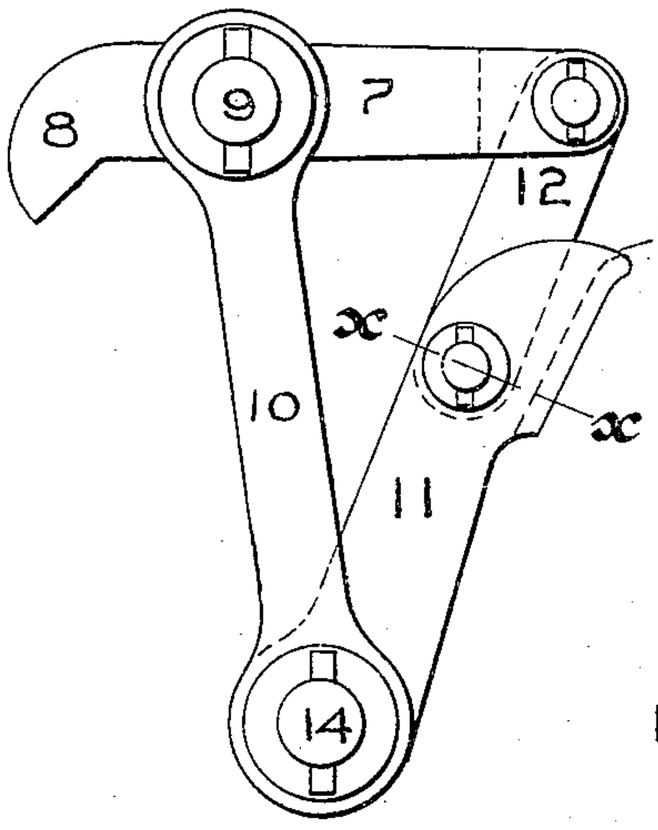


Fig. 3.

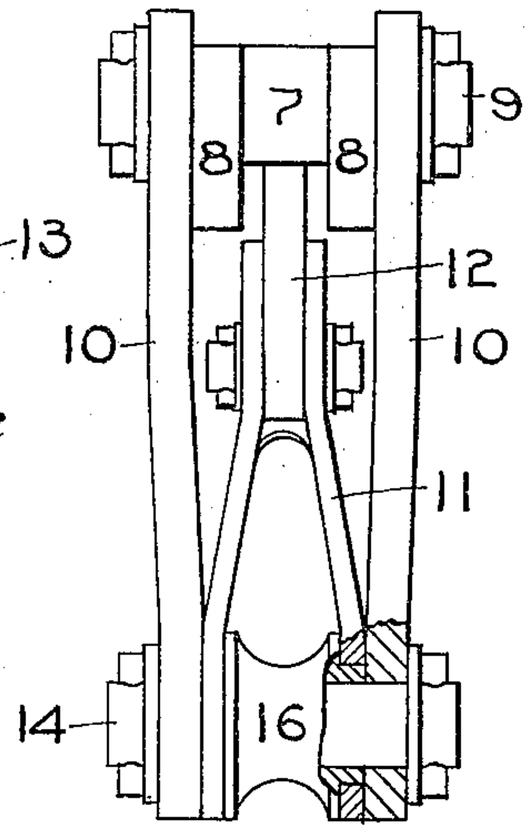


Fig. 4.

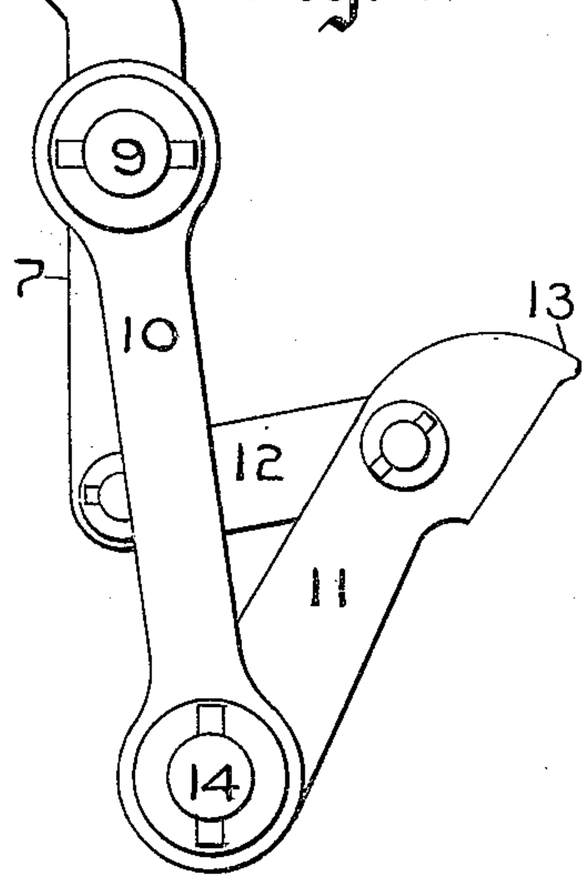


Fig. 5.

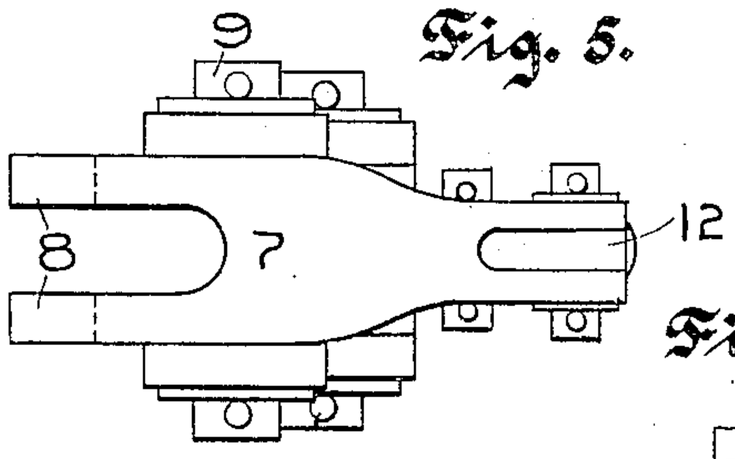


Fig. 7.

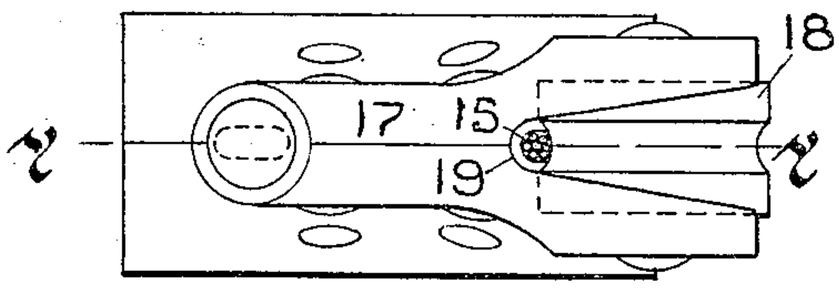


Fig. 6.

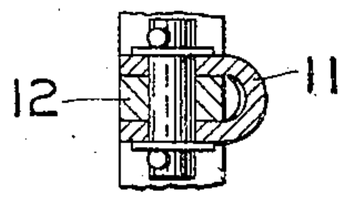


Fig. 10.

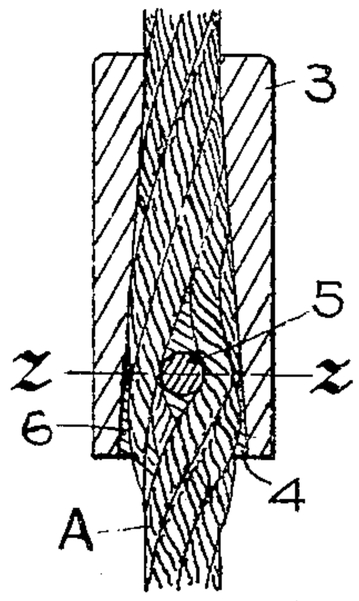


Fig. 11.

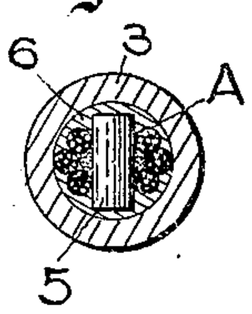


Fig. 9.

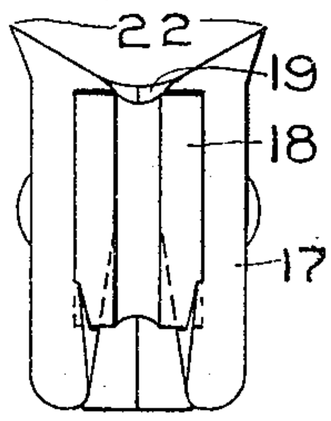
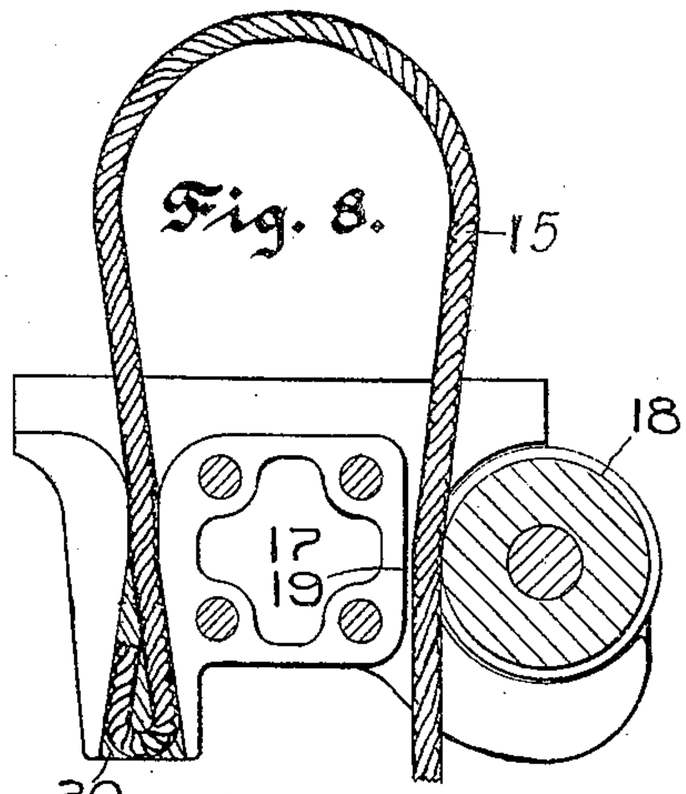


Fig. 8.



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his Attorneys.

UNITED STATES PATENT OFFICE.

CHARLES A. WHIPPLE, OF ELK RIVER, MINNESOTA.

STUMP-PULLER.

No. 800,700. Specification of Letters Patent. Patented Oct. 3, 1905.

Application filed September 6, 1904. Serial No. 223,363.

To all whom it may concern:

Be it known that I, CHARLES A. WHIPPLE, a citizen of the United States, residing at Elk River, in the county of Sherburne and State of Minnesota, have invented certain new and useful Improvements in Stump-Pullers, of which the following is a specification.

My invention relates to improvements in stump-pullers, its object being particularly to provide a stump-puller which may be easily and quickly disengaged from the stump and also by which a number of stumps may be pulled from a single cable.

To this end my invention consists in the features of construction and combination hereinafter particularly described and claimed.

In the accompanying drawings, forming part of this specification, Figure 1 shows my invention employed in pulling a number of stumps. Fig. 2 is a top view of a hook forming part of my invention. Fig. 3 is a side elevation of the same. Fig. 4 is a top view of the hook in releasing position. Fig. 5 is an end view of the same. Fig. 6 is a section on line *x x* of Fig. 2. Fig. 7 is a front elevation of a clamping-block forming part of my invention. Fig. 8 is a section on line *y y* of Fig. 7. Fig. 9 is an end elevation of the same. Fig. 10 is a longitudinal section of a cable-inclosing collar forming part of my invention, and Fig. 11 is a section on line *z z* of Fig. 10.

In the accompanying drawings, A represents a cable connected with a suitably-actuated winding-windlass 2. Upon the cable at desired intervals are secured collars 3. In order to secure the collars upon the cable, I preferably form each collar with a tapered longitudinal opening 4 to receive the cable. The cable is secured in the collar by means of a pin 5, passed through the cable to spread the same in the larger end of the opening, the cable being further secured by soldering 6.

Adapted to work in connection with the collars is the hook illustrated in Figs. 2 to 5. The hook consists of a claw 7, formed with a hooked end 8. The claw has fulcrum-support 9 in the rearwardly-extending frame 10. The rear end of the frame is connected by interlocking toggle-levers 11 and 12 with the upper end of the claw. The inner end of the lever 11 extends over the adjacent end of the lever 12 and is turned outwardly to form a finger-hold 13. Upon the pivot 14, which supports the rear end of the lever 11, is mounted a roller 16, to which is secured one end of a cable 15, the opposite end of said cable being secured to a clamping-block 17. As shown in Fig. 8, the cable 15 passes between the roller 18, journaled in one end of the clamping-block, and the inner wall 19 of the block, the end of the cable 15 being secured in the opening 20 in the opposite end of the block. As shown in Fig. 8, the end of the cable 15 thus forms a loop upon the inner side of the clamping-block to receive the stump 21. The inner side of the clamping-block is formed with sharpened edges 22 to engage with the stump. In order to prevent the cable 15 getting caught at the sides of the roller 18, I extend the outer side of the block over the roller, as shown.

In use the cables 15 will be looped over the stumps to be pulled, as shown in Fig. 1, with the sharpened edges 22 of the clamping-block in engagement with the stump. The hooks upon the opposite ends of the cables are then hooked over the collars upon the main cable, the toggle arms of the hooks being locked in alinement. When the stump has been pulled, the hook of the auxiliary cable, which it is desired to release, will be released from the main cable by breaking the toggle-arms, as shown in Fig. 4, when the drawing ahead of the main cable will turn the hook into released position. The clamping-block can then be easily removed from the stump. It will thus be evident that any of the hooks can be released from the main cable without stopping the movement of the cable, so that any number of stumps may be connected with the main cable and the cable be kept in constant movement. While in the drawings I have shown collars 3 on the secondary cables constituting lugs, any other suitable form of lug may be employed to be engaged by the hooks.

By the term "lug" is meant any projection or part which shall furnish points of engagement for the hooks.

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

1. In combination a main cable and interspaced lugs carried thereby, a hook carrying a pivotally-supported claw arranged for engagement with said lugs, means for normally holding said claw in such engagement, a secondary cable connected with said hook and a clamping-block carried by said secondary cable for engagement with a stump.

2. In combination a cable and interspaced lugs carried thereby, a hook consisting of a

claw arranged for engagement with one of said lugs and interlocking toggle-arms normally holding said claw in engagement with said lug, a secondary cable connected with said hook, and means carried by the other end of said secondary cable for holding a stump.

3. In combination a main cable and interspaced lugs carried thereby, a hook consisting of a pivotally-supported claw arranged to engage with one of said lugs, a pair of interlocking toggle-arms normally holding said claw in engagement with said lug, a secondary cable connected with said hook, and a clamping-block secured upon the opposite end of said secondary cable and formed with an opening to slidably receive said cable and allow a loop to be formed therein.

4. In combination a main cable and interspaced lugs carried thereby, a hook consisting of a pivotally-supported claw arranged to engage with one of said lugs, a pair of interlocking toggle-arms normally holding said claw in engagement with said lug, a secondary cable connected with said hook, a clamping-block secured upon the opposite end of said secondary cable and provided with sharpened edges along one side, and a roller journaled in one end of said block and forming a passage between it and the adjacent wall of the block to slidably receive the cable, for the purpose set forth.

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

CHARLES A. WHIPPLE.

Witnesses:
H. S. JOHNSON,
EMILY F. OTIS.