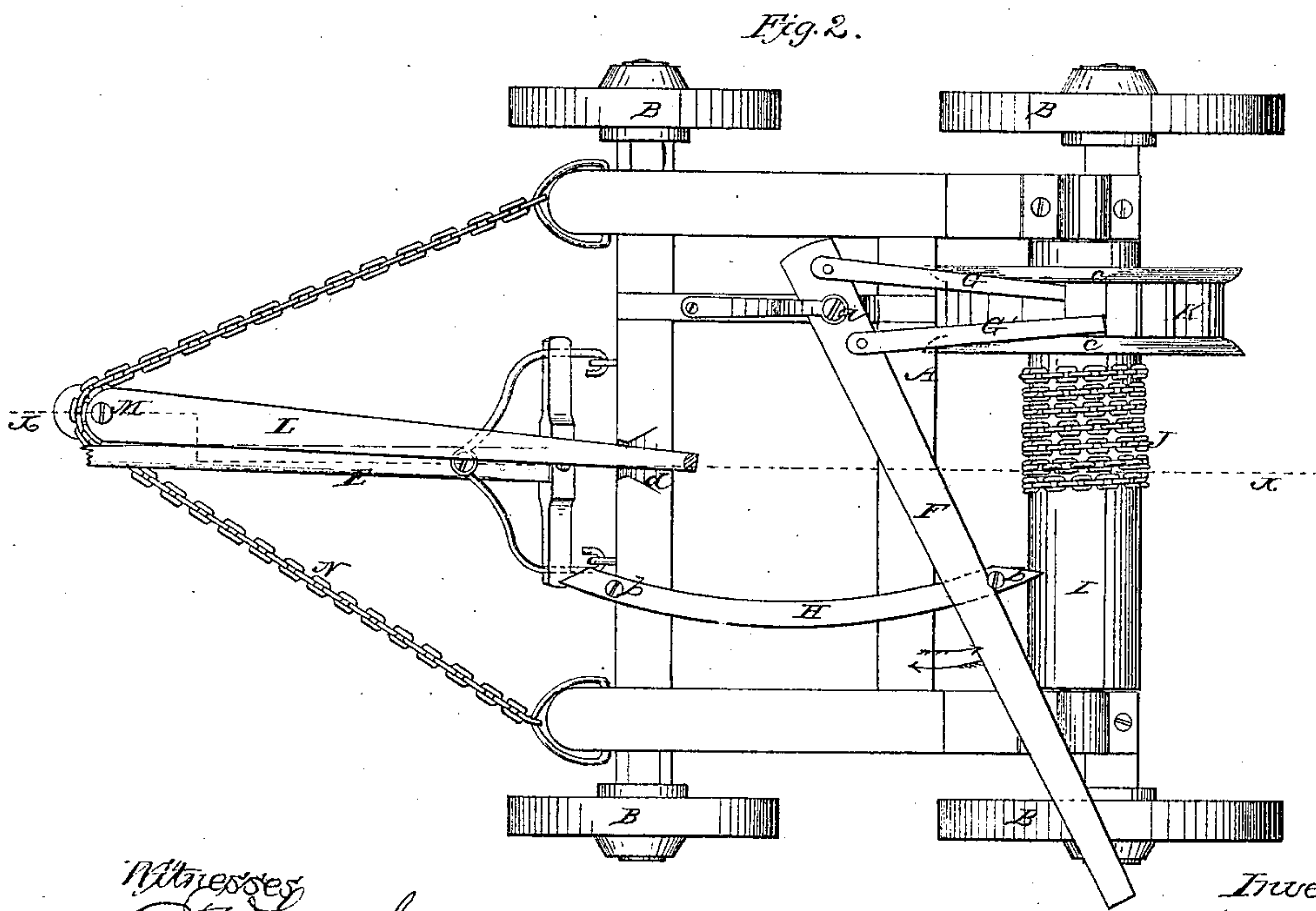
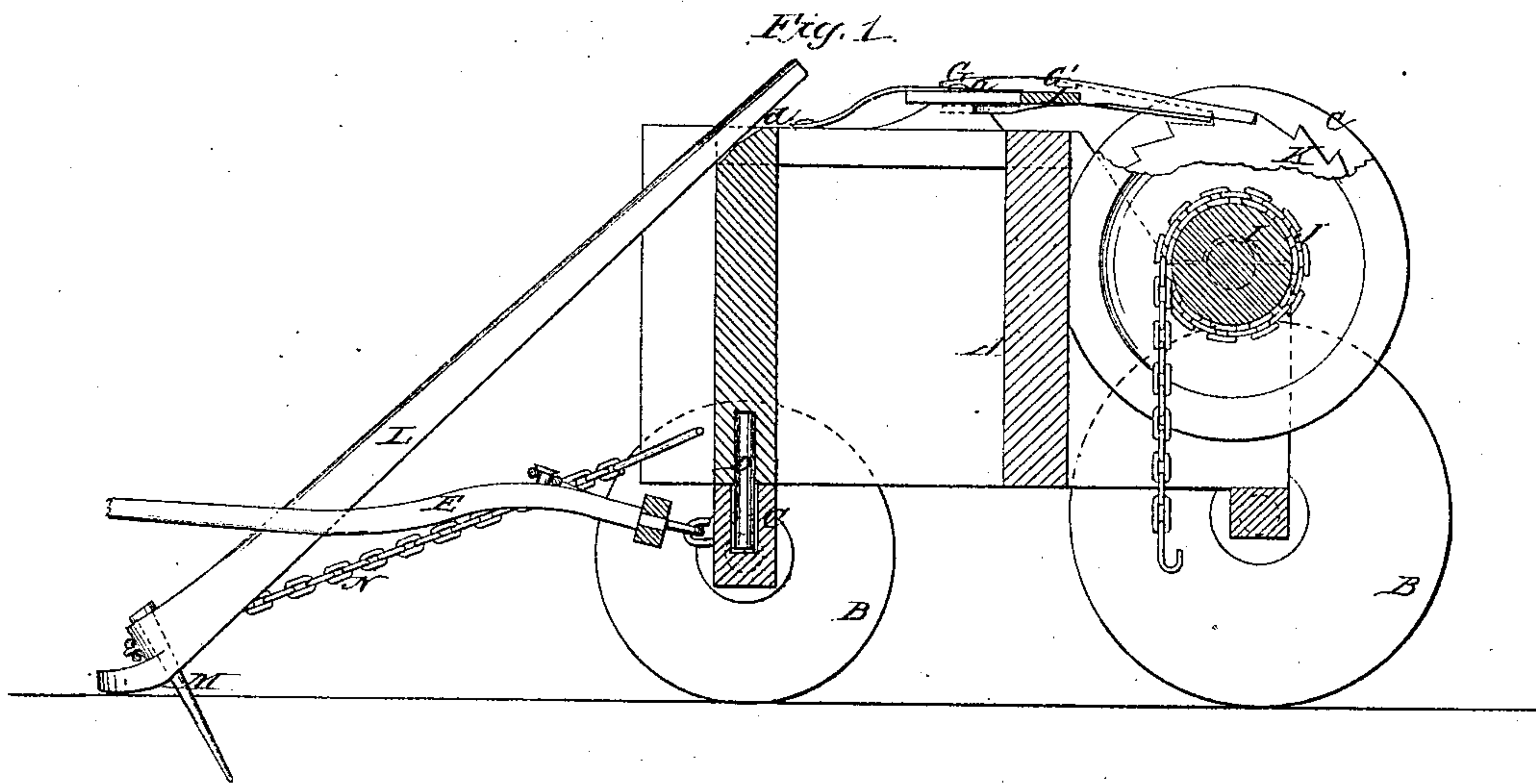


H. Lemm,
Stump Elevator,
No 40,940.
Patented Dec. 15, 1863.



Witnesses
J. P. Coombs
J. W. Reed

Inventor
Hiram Lemm
per M. W. H.
attys.

UNITED STATES PATENT OFFICE.

HIRAM LEMM, OF LEONIDAS, MICHIGAN.

IMPROVEMENT IN STUMP-EXTRACTORS.

Specification forming part of Letters Patent No. 40,940, dated December 15, 1863.

To all whom it may concern:

Be it known that I, HIRAM LEMM, of Leonidas, in the county St. Joseph and State of Michigan, have invented a new and Improved Machine for Extracting Stumps and for Lifting and Moving Heavy Bodies; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a side sectional view of my invention, taken in the line *x x*, Fig. 2; Fig. 2, a plan or top view of the same.

Similar letters of reference indicate corresponding parts in the two figures.

This invention consists in the employment or use of a lever provided with two pawls and fitted on the upper part of a mounted frame, in connection with a ratchet and drum fitted in the mounted frame, and all arranged to operate in such a manner and in connection with a chain as to admit of stumps being extracted and heavy bodies elevated and transported from place to place with the greatest facility.

The invention also consists in a simple and novel means employed for holding the mounted frame in proper position when the machine is in operation, as hereinafter fully set forth.

To enable those skilled in the art to fully understand and construct my invention, I will proceed to describe it.

A represents a frame, which may be constructed in any proper manner to support the working parts of the machine. This frame A is mounted on four wheels, B, those at one end having their axle C fitted to the frame by means of a king-bolt, D, to admit of the machine being readily turned or guided as it is drawn along. A draft-pole, E, is attached to the axle C.

On the top or upper part of the framing A there is secured by a fulcrum-pin, *a*, a horizontal lever, F, which has two pawls, G G', attached to it at opposite sides of its fulcrum-pin, as shown clearly in Fig. 2. The lever F works over an arc, H, on the frame A, said arc having an upright pin, *b*, near each end of it, which limits the movement of the lever, as will be fully understood by referring to Fig. 2.

I represents a drum, which is fitted trans-

versely in the frame A at its back part, and has a chain, J, attached to it. This drum has a ratchet, K, upon it, into which the pawls G G' catch, said pawls being retained on the ratchet by means of flanges *c c*, which project beyond its periphery and form a groove for the ends of the pawls to work in.

L represents a pole, one end of which has a spike, M, passing through it, and said end is grooved or notched to receive a chain, N, the ends of which are attached to the front end of the frame A. The upper part of the pole L is fitted in a notch, *d*, at the upper part of the front end of the frame A, and the spike M is driven in the ground. This pole L prevents the machine from shifting or moving when in operation.

The operation is as follows: The machine is drawn to the spot where it is to be used, and the chain J attached to the stump to be extracted or article to be elevated. The machine is then, if not previously done, anchored by adjusting the bar L, as previously described, and the lever F is moved, first in one direction and then in the other, as indicated by the arrows in Fig. 1, and the two pawls G G' alternately engage with the ratchet K, one acting upon the ratchet as the other recedes from it, and thereby communicating a continuous rotary movement to the drum I, winding up the chain J thereon, and extracting the stump or elevating the article to which the chain J is attached.

The stump or other article, when elevated, may, while in a suspended state, be transported or conveyed to any desired spot.

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

1. The lever F, with the pawls G G' attached, in combination with the ratchet K and drum I, with chain J attached; all arranged on a mounted frame, A, to operate as and for the purpose herein set forth.

2. The pole L, provided with the spike M, in combination with the chain N, all arranged as and for the purpose specified.

HIRAM LEMM.

Witnesses:

H. S. WHITREG,
A. M. JORDAN.