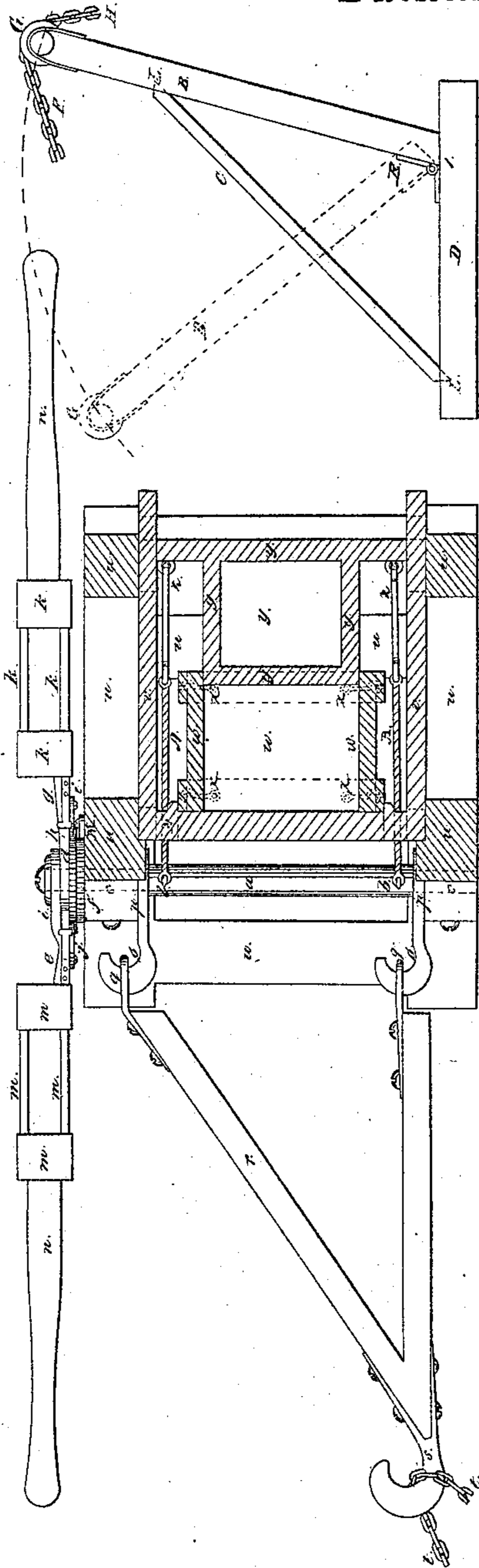


G. Henny,

Stump Elevator.

N^o 23,688.

Patented Apr. 19, 1859.



Witnesses:

*Geo. Y. Shugart
Adam L. Stevens*

Inventor.

George Henny

UNITED STATES PATENT OFFICE.

GEORGE KENNY, OF MILFORD, NEW HAMPSHIRE.

COMBINED STUMP-EXTRACTOR AND PRESS.

Specification of Letters Patent No. 23,688, dated April 19, 1859.

To all whom it may concern:

Be it known that I, GEORGE KENNY, of Milford, in the county of Hillsboro and State of New Hampshire, have invented a
5 Combined Stump-Extractor and Press; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings and to the letters of reference marked
10 thereon.

The drawings represent a longitudinal section through the pressing box, the section being taken in front of the levers and winding shaft.

15 To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

When the machine is to be used for lifting weights or extracting stumps, the wire
20 ropes or chains A, A, are unhitched from the hooks b, b, on shaft a, and the whole frame v, v, v, is withdrawn together with the pressing box w, w, w, and pressing block y, y, y, and the machine is then
25 worked in combination with the canting frame B, D, to be described hereafter.

The shaft a, has its bearings at c, c, in the main frame u, u, of the machine. Two
30 rings p, p, fit loosely around the pivots of shaft a, and terminate in hooks o, o. The staples q, q, of a frame r, r, are slipped over said hooks o, o, and the hook s, at the end of the frame r, r, is chained to some stationary point by means of a chain t, t.

35 The end of the part F, of a chain F H, is hitched to one of the hooks b, b, projecting from shaft a, and the end of the part H, of said chain is fastened to the weight to be lifted or to the stump to be extracted, and
40 the chain is passed over the guide roller G, on frame B, D. This frame consists of two parts B, and D, hinged together at I, and is firmly braced by passing the ends of the brace piece C, into notches L, L, whenever
45 the machine is used for lifting weights. But when it is used for extracting stumps, the brace piece C, is removed and the part B, of the frame is allowed to swing around the hinge I, (see position of B, indicated by
50 red lines), as the extraction of the stump is proceeded with, for the purpose of canting the stump while it is being pulled out.

Levers n, n, of suitable length, may be worked by hand or teams may be hitched to

their ends. The inner ends of these levers 55 are held in iron sockets k, m, which latter terminate in eyes i, and h. These eyes fit loosely the pivot of the shaft a, while pawls i, j, pivoted to the eyes h, i, take into and are pressed (by means of springs g, e,) 60 toward a ratchet wheel d, which is firmly keyed to the pivot of the shaft a.

From this arrangement it will be seen that the levers may be turned in one direction without turning the shaft a, the eyes 65 i, h, turning around the pivot of the shaft, and the pawls i, j, slipping over the teeth of the ratchet wheel d; but when turned the other way the pawls take into the teeth of the ratchet wheel and the shaft a, is thereby 70 caused to revolve. Another ratchet wheel f, is keyed to the pivot of shaft a, and a spring pawl M, pivoted to the frame u, of the machine, is made to take into the teeth of ratchet wheel f, for the purpose of pre- 75 venting the shaft a, from unwinding whenever the ends of the levers are let go.

When the machine is to be employed as a press, the frame v, v, v, is inserted as represented in the drawings, the pressing box 80 w, w, w, containing the material to be pressed, is placed within the frame v, v, v, so as to abut against its side as seen in the drawings and the pressing block y, is hitched to the shaft a, by means of staples z, z, wire 85 ropes or chains A, A, and hooks b, b, upon shaft a.

It will be seen that by working the levers and thereby revolving the shaft a, the ropes or chains A, A, (which pass through holes 90 N, N, in frame v,) will be wound around the shaft, and the pressing block y, will be drawn up toward and into the box w, thus compressing the material contained in the box. The sides of the box w, are fastened 95 together by means of hooks and eyes x. From the above it will also be understood that the levers may be either turned around continually or may be worked back and forth, when the pawls i, j, will alternately 100 slip over and take into the teeth of the ratchet wheel d. In the latter case when working the levers back and forth, the men working the levers are not obliged to walk around but they may keep standing in one 105 place.

The anchor frame r, r, is so constructed that the anchoring hook s, is close to the

ground which serves to keep the whole machine steady. The same hook answers also for drawing the machine from place to place, when placed on wheels or runners so as to
5 facilitate the transport.

This machine answering the purposes of a stump extractor and press, has been constructed with a view to combine effectiveness with the greatest possible compactness; the
0 same shaft and winding apparatus answers for both purposes of the machine without any alteration; and without enlarging the main frame beyond what it would necessarily have to be for the machine when used
5 merely as a stump extractor, the pressing frame, box and block are constructed to occupy the space which is otherwise taken up by the play of the chain F, when being wound upon shaft *a*, in the act of extracting stumps or lifting weights.
0

The compactness of my combined stump extractor and press is an important feature,

which makes the machine valuable and well adapted to the purposes of farmers, &c.

Having described my combined stump extractor and press, what I claim therein as
25 new and desire to secure by Letters Patent, is—

1. The combination of the main frame *u, u*, anchor frame *r, r*, canting frame B, D, 30 with the shaft *a*, and the devices for working it, the whole being constructed and combined substantially as and for the purposes set forth.

2. I also claim the main frame; and windlass device above described, in combination
35 with the removable pressing frame and box, substantially as and for the purposes set forth.

GEORGE KENNY.

Witnesses:

GEO. Y. SAWYER,
AARON F. STEVENS.