WILLIAM Q. BAXTER.

COMBINED STUMP EXTRACTOR & DERRICK.

PATENTED JUL 4 1871

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FIG. 1

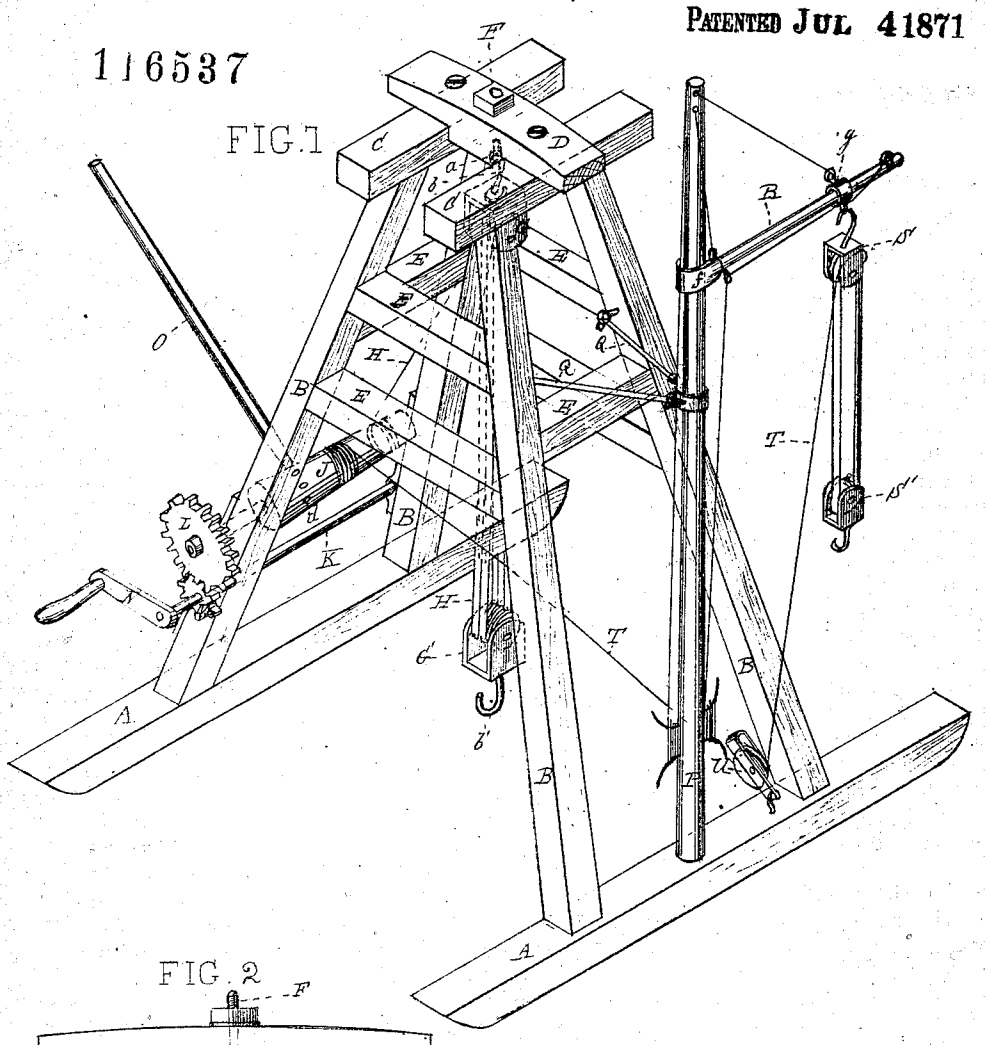
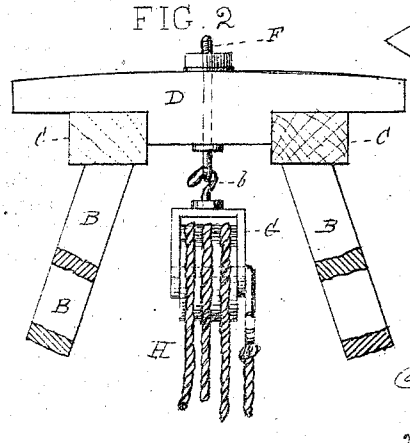


FIG. 2



WITNESSES.

Thomas J. Bradley

Hue. R. Towns Jr.

INVENTOR.

William Q. Baxter

Stephen Astick

Atty.

UNITED STATES PATENT OFFICE.

WILLIAM Q. BAXTER, OF MAPLE TOWNSHIP, PENNSYLVANIA.

IMPROVEMENT IN COMBINED STUMP-EXTRACTORS AND DERRICKS.

Specification forming part of Letters Patent No. 116,537, dated July 4, 1871.

To all whom it may concern:

Be it known that I, WILLIAM Q. BAXTER, of Maple township, in the county of Delaware and State of Pennsylvania, have invented a Combined Stump-Extractor and Derrick, of which the following is a specification:

The object of the invention is the accomplishment of different purposes by a single machine which have heretofore been done by separate machines; and the invention consists in such a combination of a stump-extractor and derrick as to adapt the combined machine to all the purposes to which a stump-extractor may be applied, and also to the work of an ordinary derrick, thereby effecting both economy in the construction of and convenience in the use of the machine, as hereinafter described.

In the accompanying drawing which makes a part of this specification, Figure 1 is an isometrical view of the combined stump-extractor and derrick. Fig. 2 is an elevation of the upper portion of the frame and parts attached, on an enlarged scale. .

Like letters in both figures indicate the same parts.

The frame-work of the machine is composed of the runners or horizontal supporting-timbers A A, which rest on the ground, the uprights B B B B, head-pieces C C and D, and side connecting-rails E. F is a swivel-bolt, connected with the head-block D. The said bolt has an eye, *a*, at its lower end, for the connection of the hook *b* of the upper block G. The lower block G′ is connected with said block G by means of the rope H in the usual manner, as seen in Fig. 1. The lower hook *b*′ is connected with the chain, which is attached to the stump in the usual manner, not seen in the drawing. The hanging end of the rope H may be grasped by the hand when that mode of operation is sufficient for the extraction of the stump or elevation of the stone; or, when the work is performed by a horse, the end of the rope may be brought into connection with the same. When an increased leverage is required the end of the rope is attached to the conical roller J, which has connection with the shaft K by means of the gear-wheel L and pinion M. One end of the shaft K is provided with a crank, N. When a still greater leverage is desired the lever O is used by connecting it with the holes *d* in the periphery of the roller J.

When the stump or stone has to be removed to another locality the machine is moved along by the sliding of its runners A A, by means of a rope or chain, which may be connected to the forward ends of the same. When the drawing is laborious a horse may be connected to the rope. When very laborious, or extensive operations in the movement of the machine, the runners A A should be provided with traction-wheels.

For adapting the machine to raising stone or other material for building walls, &c., I combine with it the derrick P, the lower end of which is connected with one of the runners A. When the derrick is required to turn, its lower end has a round tenon, which fits in a corresponding mortise in the runner; but when it is to remain stationary the tenon should be square to give greater stability to the derrick. The derrick is held in its upright position by means of the braces Q Q, as seen in Fig. 1. R is the boom of the derrick, to which it is connected by means of the jaw or sliding ring *f*. The boom is provided with a sliding ring, *g*, to which is attached the upper block S of the tackle. The lower block S′ is connected to said block S by means of the rope T in the usual manner. The said rope may be either operated by hand or in connection with the windlass. In the latter case it is passed around the sheave U and connected with the roller, as shown in Fig. 1.

When the derrick is required to be of considerable height, to prevent the tilting of the machine in the raising of weights I connect a cross-timber with the runners A A, and connect therewith the lower end of the derrick instead of to one of the runners A, as shown in the drawing; or I connect the derrick in any other convenient manner to the frame-work of the machine in such a manner as to be well supported by the base timbers or runners A A.

What I claim as my invention, and desire to secure by Letters Patent, is—

The combination of the stump-extractor and derrick, substantially in the manner and for the purposes set forth.

In testimony that the above is my invention I have hereunto set my hand and affixed my seal this 11th day of April, 1871.

WILLIAM Q. BAXTER. [L. S.]

Witnesses:

THOMAS J. BEWLEY,

STEPHEN USTICK.