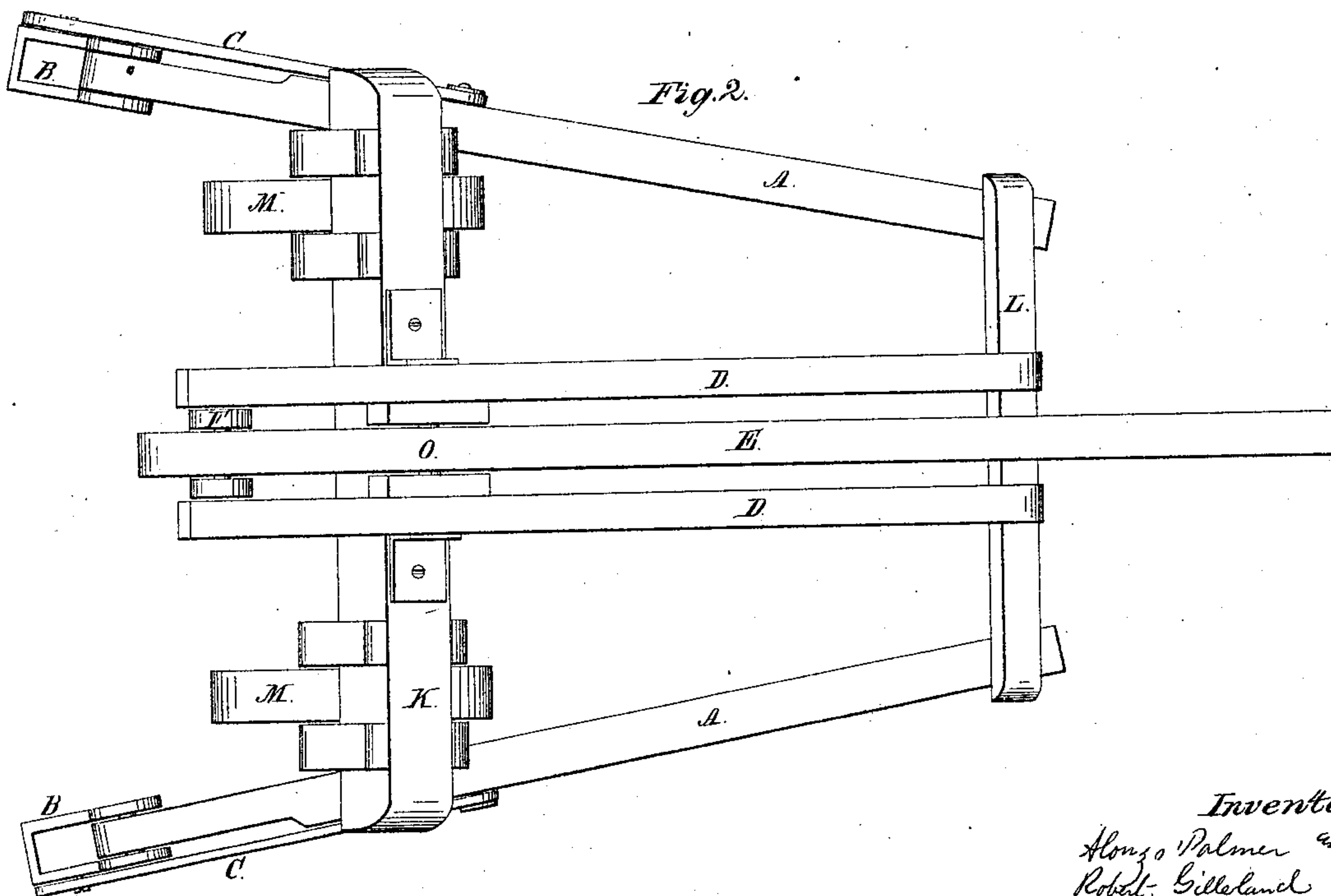
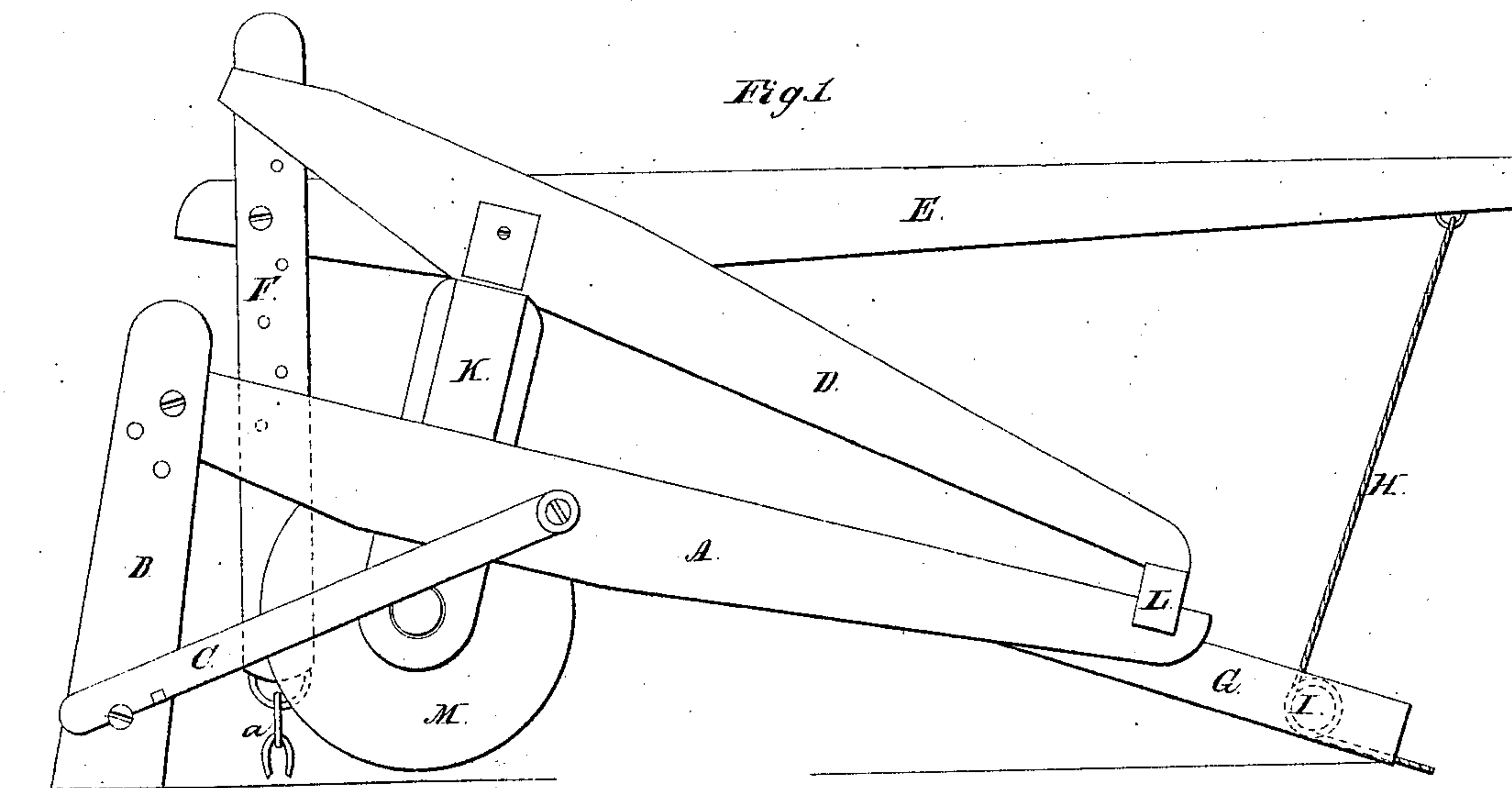


Palmer & Gilliland,

Stump Elevator.

N^o 55,156.

Patented May 29, 1866.



Witnesses.

John P. Jacobs
Charles Alexander

Inventors.

Alonso Palmer and
Robert Gilliland
by
Alexander & Mason
Attys

UNITED STATES PATENT OFFICE.

ALONZO PALMER AND ROBERT GILLELAND, OF HUDSON, MICHIGAN.

IMPROVEMENT IN STUMP-EXTRACTORS.

Specification forming part of Letters Patent No. 55,156, dated May 29, 1866.

To all whom it may concern:

Be it known that we, ALONZO PALMER and ROBERT GILLELAND, of Hudson, county of Lenawee, and State of Michigan, have invented certain new and useful Improvements in Stump-Extractors; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings and the letters of reference marked thereon.

In the drawings herewith attached and making a part of this specification, K represents the axle-tree, which is made of heavy timber, having at each end two projecting pieces, between which are secured the wheels M M, for the purpose of propelling the machine. These wheels M are made in any of the ordinary forms in a substantial manner.

G represents the tongue, which extends from the under portion of the axle-tree K forward a suitable distance to suit the required purposes.

L is a horizontal bar which rests upon the tongue G. Extending backward from each end of this bar L are beams A A, said beams being firmly attached to the projects which secure the wheels M and extend a slight distance to the rear of the wheels, where the supports B B are attached. These supports are pieces of timber which act as legs to hold the machine in its place, and are pivoted to the beams A, being provided with two or more holes to pivot them to the required height whenever it is necessary on account of the unevenness of the ground. When needed in an upright position to support the rear end of the machine, these supports B are held in their places by the braces C C, (one on each side of the machine.) These braces C are attached to the beams A, and are notched in the under part near the end to attach themselves to a screw near the bottom of each of the supports. When the machine is desired to be moved the supports can be thrown up and the wheels allowed move the extractor either backward or forward.

D D represents two stays made of heavy timber, resting upon the top of axle-tree K, and extending to, with the ends resting upon, the bar L. These stays D D are set close together and upon the axle-tree, directly above the tongue G. Between the said stays is the lever E. This lever has an adjustable clevis, F, at the

rear end for the purposes hereinafter set forth. At the front end of the lever D is attached a chain or rope, H, which extends from the lever end to and through a pulley, I, which pulley is set within the tongue G, forward of the bar L.

The lever E, heretofore described, has its fulcrum where it is secured between the stays D and directly over the axle-tree K, as seen at O in the accompanying drawings.

The clevis F, at the rear end of the lever E, is provided with a series of holes to adjust it to the lever, and has a chain, a, or hooks at the lower extremity to encircle or attach it to the stump or other thing desired to raise.

By the construction of this machine it will be seen that the axle-tree is quite elevated above the beams A A to give the lever E more power when desired to use the same.

The operation of this extractor is very simple. The tongue G is put upon the ground, when horse or other power is applied to the rope or chain H. The lever E is raised to its full height, when the chain or hooks at the extremity of the clevis F are fastened to the stump or thing required to be elevated, the supports B B being in an upright position, by the braces C C. Power then being given, the rope or chain is drawn through the pulley I, carrying the lever E downward. It will readily be seen that the clevis, with chain or hooks, is brought upward, bringing by its force the stump or other thing from the earth. The braces C are then taken from supports B and said supports thrown upward. The machine is then drawn forward, carrying with it the incumbrance.

Having thus fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

The beams A A, supports B B, clevis F, stays D D, lever E, braces C C, pulley I, cord H, and tongue G, arranged in the manner substantially as and for the purposes herein set forth.

As evidence that we claim the foregoing we have hereunto set our hands in the presence of two witnesses.

ALONZO PALMER.
ROBT. GILLELAND.

Witnesses:

T. H. MALONE,
D. L. JAKES.