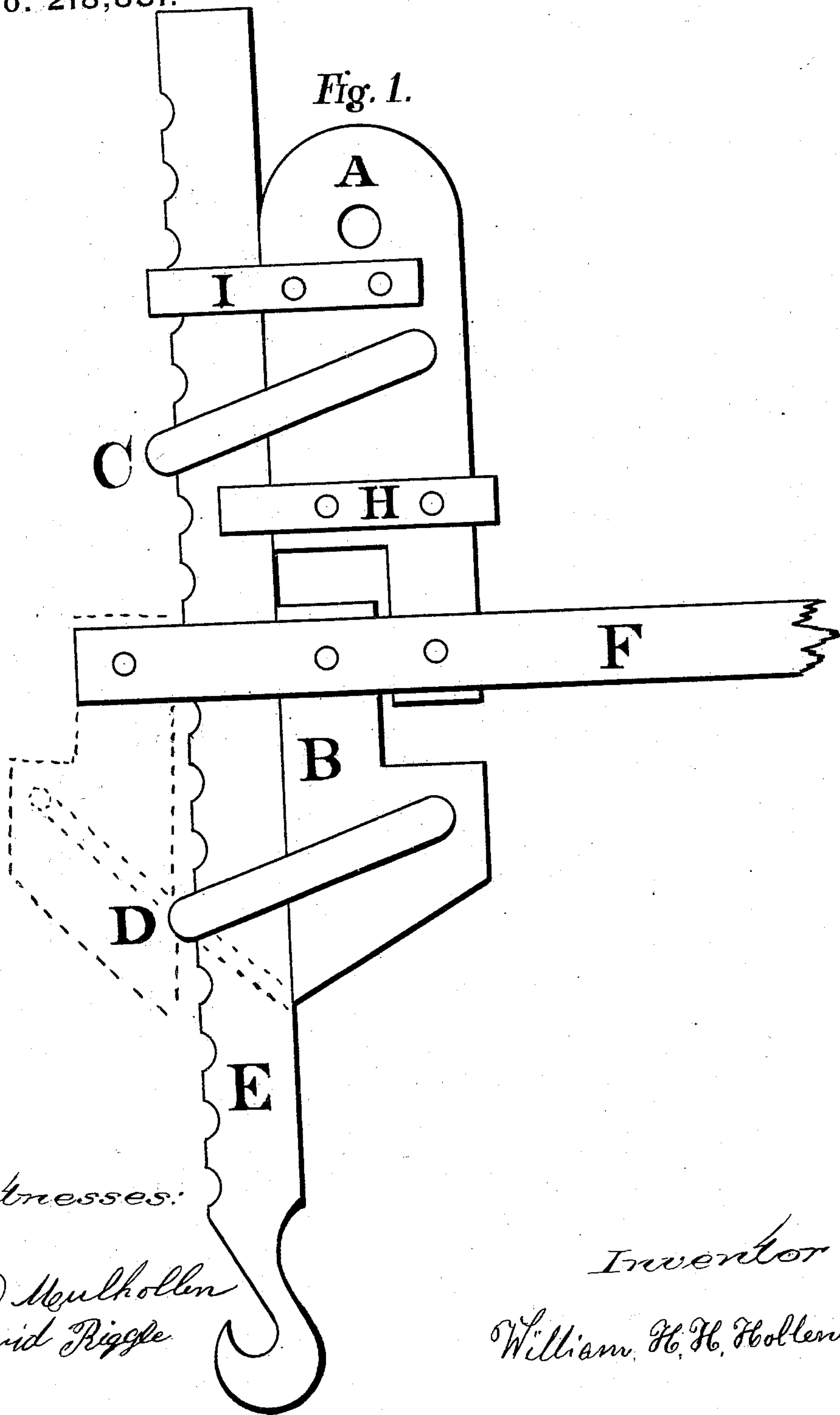


W. H. H. HOLLEN.
Stump-Puller.

No. 218,881.

Patented Aug. 26, 1879.



witnesses:

John Meulhollen
David Riggle

Inventor

William H. H. Hollen.

UNITED STATES PATENT OFFICE.

WILLIAM H. H. HOLLEN, OF FOSTORIA P. O., PENNSYLVANIA.

IMPROVEMENT IN STUMP-PULLERS.

Specification forming part of Letters Patent No. **218,881**, dated August 26, 1879; application filed April 9, 1879.

To all whom it may concern:

Be it known that I, WILLIAM H. H. HOLLEN, of Fostoria P. O., in the county of Blair and State of Pennsylvania, have invented a new and useful Improvement in Stump-Pullers, which improvement is fully set forth in the following specification, reference being had to the accompanying drawing.

The object of my invention is to make a cheap stump-puller or grubbing-machine by means of a lever, F, in combination with a lifting-bar, E, holding-bar A, holding-link C, and a short bar, B, with a lifting-link, D, as shown in Figure 1 in the accompanying drawing.

The lever F is made of two pieces, wide enough apart to let the lifting-bar E pass up between them. The lever F is held up in the frame by means of the holding-bar A, coming down from the top of the frame, where it is held by a bolt, which passes through the top of the frame, and through it at the top near the letter A, the lower end being bolted in the lever. The holding-link C passes through a hole in the holding-bar A, and is long enough to let the lifting-bar E pass up through it. The lifting-link D is fastened in the short bar B, the same as the holding-link in bar A, and the lifting-bar passes up through it in the same manner. The lever is intended to work loosely on the bolt which holds it up, so as to give the short end a corresponding motion when the long end is raised or lowered. The bar which holds the lifting-link is bolted loosely in the lever, so as to allow it to slide down along the lifting-bar when the long end of the lever is raised. Now, when the long end of the lever is lowered, so as to raise the lifting-link, the end which rests on the edge of the lifting-bar catches in a notch, and binds the lifting-bar tight against the short bar B, and both are lifted together.

When the lever is actuated so as to lower the lifting-link, the upper link catches in a notch in the lifting-bar, and holds what the lifting-link has raised. By raising and lowering the lever the stump or grub may be raised to the required height. Bar B, when bound against bar E, keeps it from bending when the strain is on it by being longer down-

ward than where the link binds against it. The upper bar forms a support in the same manner.

For a machine to be operated by horse-power the bar B may be changed to the opposite side of the lifting-bar E, as shown by the dotted lines in Fig. 1, by this means raising the lifting-bar farther each time; but in this case both edges of the lifting-bar should be notched, as the one link works on the outer edge and the other on the inner edge.

For a horse-power machine the lever can be drawn down by rope and pulleys or any common method.

For a hand-machine the short bar B should be worked on the inner edge of bar E, which gives it more power, and is easier on the operator. In this case only one edge of the lifting-bar need be notched, as both links catch on the same edge. If it is thought better to draw the lever up when working it by a horse, it can be done by placing a pulley above by means of uprights to hold it in place. A rope may pass up from the lever over the pulley above, and thence down to another pulley below, which may be fastened in the foot of the frame. All that is required to raise the stump in this way is to reverse the irons in the frame, so as to place the long end of the lever in the position of the short end.

The lifting-bar E, bar A, and bar B should be made of flat iron bars, two inches wide and one-half inch thick; or, for pulling heavy stumps, they may be wider and heavier. The lifting-bar E is held in place by means of pieces I and H, which are riveted on both sides to bar A in such a manner as to let the lifting-bar pass up between them, keeping its edge against the edge of bar A. The short bar B is held in place by the lever and link.

What I claim as new is—

The combination of the holding-bar A, short bar B, lifting-links C and D, lifting-bar E, lever F, and guide-pieces H and I, substantially as and for the purpose set forth.

WILLIAM H. H. HOLLEN.

Witnesses:

JOHN MULHOLEN,
DAVID RIGGLE.