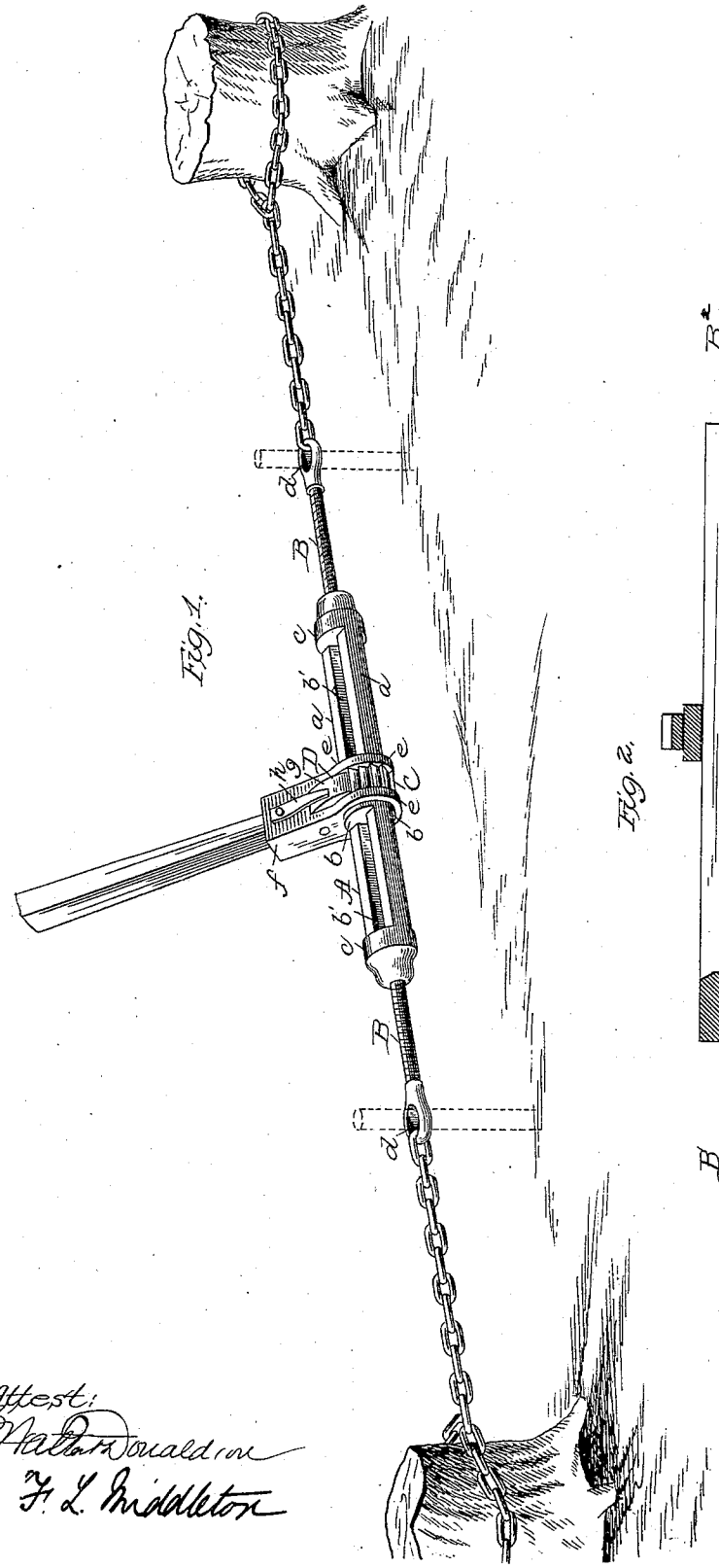
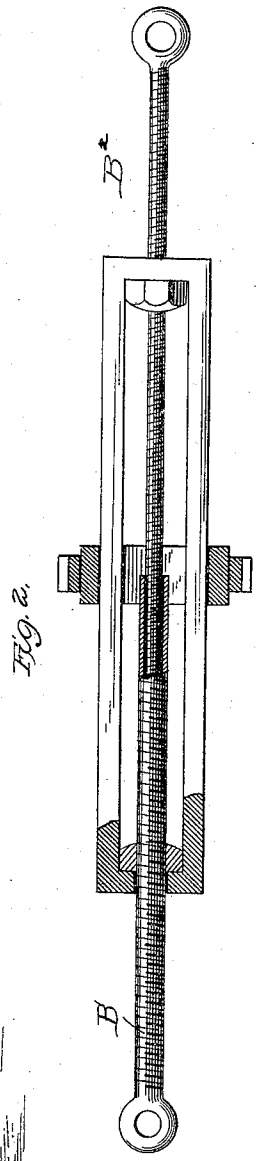
(No Model.)

J. B. WILSON.

STUMP EXTRACTOR.

No. 310,767. Patented Jan. 13, 1885.





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UNITED STATES PATENT OFFICE.

JOHN B. WILSON, OF PETERSBURG, ILLINOIS.

STUMP-EXTRACTOR.

SPECIFICATION forming part of Letters Patent No. 310,767, dated January 13, 1885.

Application filed November 26, 1884. (No model.)

To all whom it may concern:

Be it known that I, JOHN B. WILSON, of Petersburg, in the county of Menard and State of Illinois, have invented a new and useful Improvement in Stump-Pullers; and I do hereby declare that the following is a full, clear, and exact description of the same.

My invention is an improved device for pulling stumps, and is especially designed for this purpose; but it may also be used to draw heavy loads or articles together, and in any other situation where the use of such power is necessary or desirable.

The object of the invention is to provide simple and effective means from which great power can be obtained, and which at the same time may be used in any location and by unskilled workmen.

The invention consists of a suitable stout frame composed of any suitable material, with a pawl-and-ratchet mechanism at its center, the ratchet being fixed and the pawl swiveled on the frame, the said frame having screw-threaded openings at the ends, adapted to receive right and left hand screws, respectively, to which screws the connection with the load is to be attached.

In the drawings accompanying this application, Figure 1 represents a perspective view of my improvement, represented in place between two stumps and ready to be operated. Fig. 2 is a modification.

The frame of my device is shown at A. It is composed, as represented, of side bars, *a a*, with a central solid portion, *b*, and end pieces, *c c*. In constructing this frame I preferably proceed in the following manner: I take a piece of round metal of suitable length and thickness. The ends are turned, as shown at *c c*, in any ornamental shape. Between the ends *c c* and the central round solid part, *b*, the sides of the bar are cut off, leaving a flat reduced portion between the ends *c c* and the central portion, *b*. About a third, more or less, of this flat portion is cut out for its whole length through the middle from side to side, as shown at *b' b'*. It will be understood, while this is the preferred mode, that this frame may be cast in proper shape or made in any desirable way. The ends *c c* are screw-threaded internally with right and left hand threads, the openings extending entirely through the ends to the open spaces *b' b'*. Fitted to these openings in the ends *c c* are screws B B, made of wrought-iron, and having right and left hand threads corresponding to the screw-threaded openings in the ends *c c*. These screws have loops or eyes *d d* upon their outer ends, for a purpose hereinafter set forth. A ratchet-wheel, C, is splined or otherwise rigidly secured to the central portion, *b*, of the frame. A pawl device, D, is swiveled on this central portion by its arms *e e* passing upon each side of the ratchet-wheel and bearing upon the smooth periphery of the part *b*. The arms *e e* are joined together to the rear of the ratchet-wheel, and have a socket, *f*, adapted to receive a suitable handle. In the space between the wheel and the point where the arms *e e* meet, a pawl, *g*, is pivoted, as shown, resting on the teeth of the ratchet, and kept constantly in place by a spring, *h*, which bears upon the pawl, as shown. Chains of suitable lengths are connected to the eyes of the screws, and to these lengths, if they are not long enough, additional lengths are connected. When the device is to be used as a stump-puller, one section of chain is passed around a stump and secured by hooking in one of the chain-links, and upon the other side the same operation is performed, the screws at this time being drawn out to their greatest extent. A suitable handle is then inserted in the socket *f* and the pawl-and-ratchet mechanism operated, which turns the frame at every movement, and, as the screws are prevented from turning therewith by the chains secured thereto and to the stumps, the said screws are steadily drawn in by the action of the threads, which surely draw one or the other of the stumps with the screw, and thus drag it from its position. Until the chains become taut a guide stick or rod may be inserted through the eyes of the screws, thus holding the frame from the ground during the time the chains are slack.

It will be seen how simple the device is, and that it can be used in any situation without regard to the character of the ground.

I do not limit myself in its use to pulling stumps, as its operation is equally effective in drawing together heavy weights.

In Fig. 2 I have represented a modification of the device shown in Fig. 1. I dispense with the solid portion *b*, shown in the first form, and make the frame open, as shown, from end to end. The screw B′ is in this case made larger than the screw B^2 and hollow, as shown, and as the screws are drawn in by the revolution of the frame by the means before described, the screw B^2 enters the hollow screw B′, and in this way the screws can be drawn in to their full extent.

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

1. A stump-puller consisting of a frame having right and left hand screws fitted to the ends thereof, suitable chain-connections between said screw ends and the load to be pulled, and pawl-and-ratchet mechanism connected to the said frame and adapted to be operated to draw on the load, substantially as described.

2. A stump-puller consisting of a frame, right and left hand screws fitted to the ends thereof, chains attached to the eyes of the screws, and adapted to be secured at the other ends to the load to be pulled, and a ratchet-wheel secured to the frame at its center, a pawl mechanism swiveled on the frame, and a socket for the insertion of a handle, all operating substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN B. WILSON.

Witnesses:

JAMES S. BLACK,

JOHN G. MCHENRY.