C. C. ADAMS.

STUMP PULLER.

No. 181,811. Patented Sept. 5, 1876.

Fig. 1

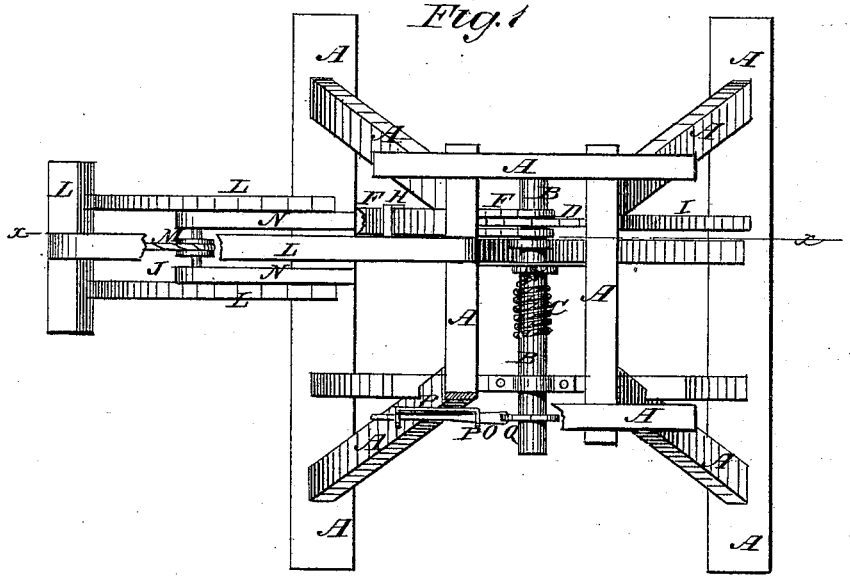
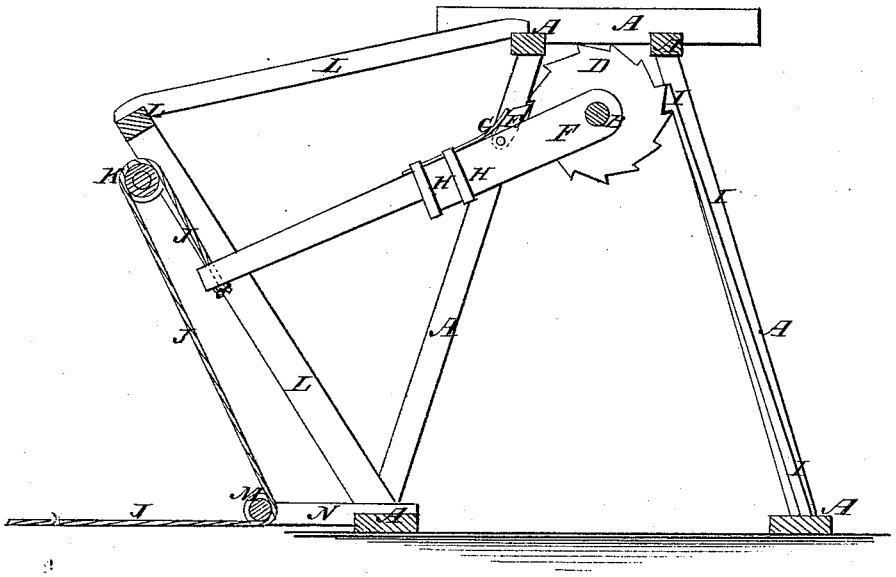


Fig. 2.



WITNESSES:

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UNITED STATES PATENT OFFICE.

CHESTER C. ADAMS, OF DECATUR, MICHIGAN.

IMPROVEMENT IN STUMP-PULLERS.

Specification forming part of Letters Patent No. **181,811**, dated September 5, 1876; application filed April 10, 1876.

To all whom it may concern:

Be it known that I, CHESTER C. ADAMS, of Decatur, in the county of Van Buren and State of Michigan, have invented a new and useful Improvement in Stump-Puller, of which the following is a specification:

Figure 1 is a top view of my improved machine, parts being broken away to show the construction. Fig. 2 is a vertical section of the same, taken through the line *x x*, Fig. 1.

Similar letters of reference indicate corresponding parts.

The object of this invention is to furnish an improved stump-puller which shall be simple in construction, inexpensive in manufacture, convenient and effective in use, doing more and better work with less expenditure of labor, and requiring less chain and rope than machines constructed in the usual way.

The invention consists in the combination of the shaft, the hoisting rope or chain, the ratchet-wheel, the pawls, the lever, the draw-rope, and the guide-pulleys with each other and the frame-work, as hereinafter fully described.

A represents the main frame, which is made pyramidal in form, and to the upper parts of which is pivoted a shaft, B. To the shaft B is attached the hoisting rope or chain C, which is attached to the stump to be raised. To the shaft B is attached a ratchet-wheel, D, with the teeth of which engages the pawl E, pivoted to the lever F, and held to its work by a spring, G. The spring G is held down by bands H slipped upon the lever F, and which may be slipped down to allow the pawl E to be turned back, so that the hoisting rope or chain C may be unwound from the shaft B. The forward end of the lever F is slotted to receive the ratchet-wheel D, and is pivoted to the shaft B, so that the shaft B may be turned to wind up the hoisting-rope, and draw the stump by vibrating the lever F. The shaft B is held from being drawn back by the resistance of the stump, when swinging the lever F by a spring-pawl, I, attached to the frame A, and the engaging end of which rests upon the teeth of the ratchet-wheel D. To the end of the lever F is attached the end of the draw-rope J, which passes over a pulley, K, pivoted to a forwardly-projecting frame, L, attached to the frame A to receive it. From the pulley K the rope J passes around a pulley, M, pivoted to arms N attached to the base of the frame A. To the other end of the rope J is attached the draft. By this construction, by alternately driving the team forward and backing them up, a succession of impulses will be given to the shaft B, winding the rope or chain around it and drawing the stump. The shaft B is locked in place by a bar, O, placed in guides P attached to the frame A, and engaging with a ratchet-wheel, Q, attached to the shaft B.

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

The combination, with a windlass, ratchet, pawl, and lever, of the frame L, rope J, and pulleys H M, arranged substantially as shown and described, for the purposes specified.

CHESTER C. ADAMS.

Witnesses:

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