B. G. CHAPMAN.

Machine for Pulling Hop-Poles.

No. 215,720. Patented May 27, 1879.

Fig. 1.

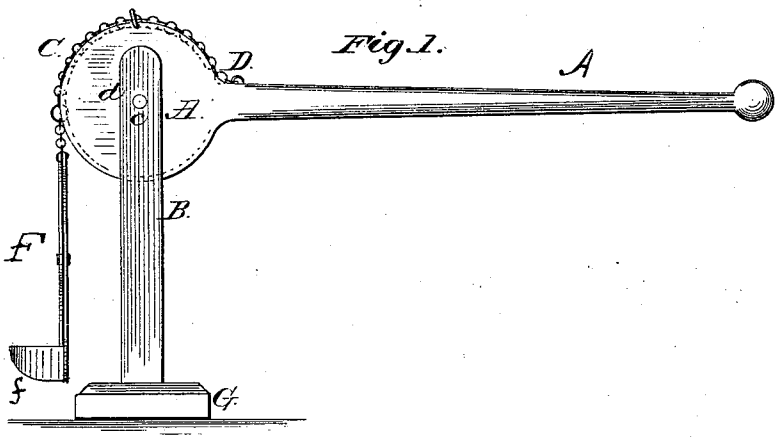


Fig. 2.

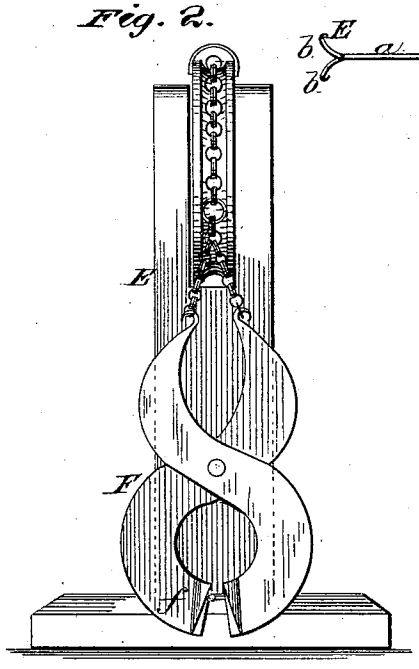
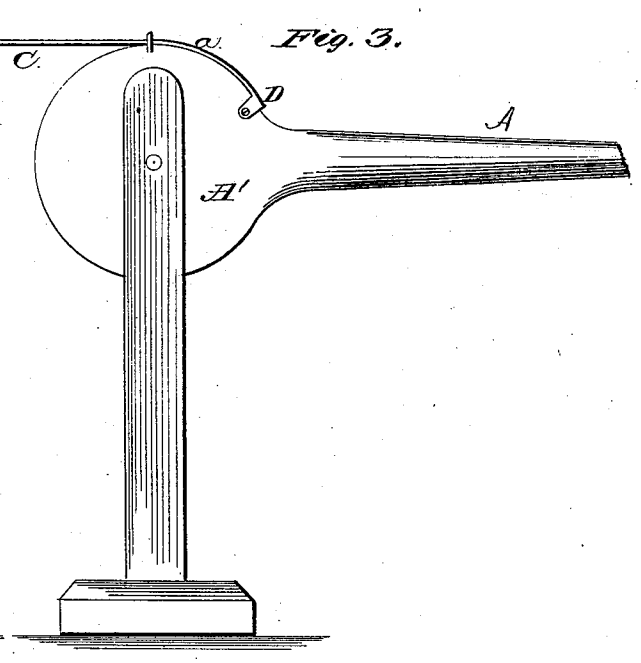


Fig. 3.



Witnesses

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BENJAMIN G. CHAPMAN, OF CLAYVILLE, NEW YORK.

IMPROVEMENT IN MACHINES FOR PULLING HOP-POLES.

Specification forming part of Letters Patent No. **215,720**, dated May 27, 1879; application filed September 10, 1878.

To all whom it may concern:

Be it known that I, BENJAMIN G. CHAPMAN, of Clayville, in the county of Oneida and State of New York, have invented a new and useful Improvement in Machines for Pulling Hop-Poles, which improvement is fully set forth in the following specification, reference being had to the accompanying drawings.

Figures 1 and 2 show a side and front view of my improved hop-pole puller.

The object of my invention is to furnish a machine for pulling hop-poles and for other similar purposes, simple in construction, and at the least possible cost.

The invention will first be described in connection with the drawings, and then pointed out in the claim.

A is a concentric lever, in a single piece, ending with a circular head, A′, which is placed in the slot at the top of and connected to the standard B by the bolt *c*, passing through the jaws formed by the slot at *d*, as shown in the drawings.

The circular end of the lever is grooved on the edge, and in construction may be lined with sheet-iron or other suitable material. In this groove the chain C passes, one end of which is secured to the upper side of the lever at D. The other end is divided into two strands at E, Fig. 2, the ends being attached to the grapple F.

The jaws of the grapple F are curved and bent laterally to the front, for clasping the pole or other similar body to be lifted, and may be made with or without teeth, as shown in the drawings.

In another construction (shown in Fig. 3) a flat steel spring of sufficient strength, with two bars attached, is made to take the place of the chain attachment C D E, as already described. In this construction the circular end of the lever A is not grooved, but left flat, the spring *a a*, the bars *b b*, all connecting and operating together, as shown in the drawing.

In either of the foregoing constructions the grapple F may be opened or closed by means of a spring, or by handle or lever attachment.

G is the foot or bearing for the standard B. The standard may be constructed in wedge shape, so as to dispense with the foot.

To operate my machine, raise the lever A, by which the grapple F will be lowered so as to touch the ground; place the jaws of the grapple F in position on the pole at the ground; the foot of the standard will rest near the pole; press down the lever A, and the pole will be raised at a single stroke from seven to ten inches. The pole may be raised entirely out of the ground by repeating the stroke, the jaws of the grapple requiring no readjustment, their action being automatic having once been placed in position.

I am aware that lifting-jacks in variety have been in use; that chains and lever attachments in combination with a standard similar to my own have also been used; and that grapples in great variety of modifications have also been used for different purposes; and that a device not unlike a large pair of pinchers, with jaws bent to the front for clasping, in combination with a strap for passing over the shoulders, have been used for pulling hop-poles.

Having thus described my invention, and the manner of operating the same, I claim as new and desire to secure by Letters Patent—

In a hop-pole puller, the lever A, having circular grooved head A′, the standard B, bolt *c*, the chain C, secured in the groove at D, and the foot G, in combination with the grapple F, having curved bent jaws *f*, all arranged and connected substantially as shown and described.

BENJAMIN G. CHAPMAN.

Witnesses:
P. E. DYE,
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