

(No Model.)

A. A. HOWE.
STUMP MACHINE.

No. 292,014.

Patented Jan. 15, 1884.

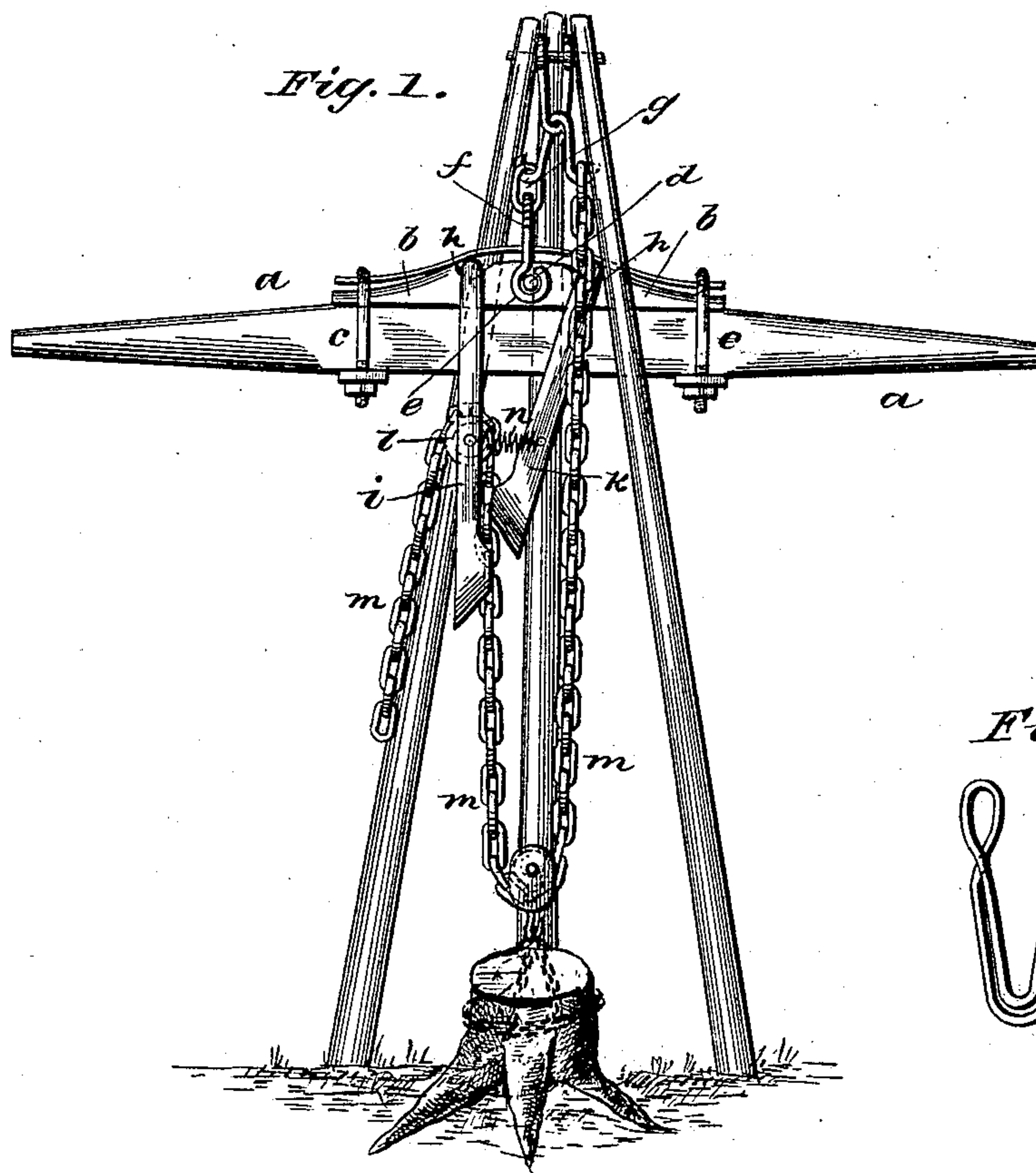


Fig. 5.

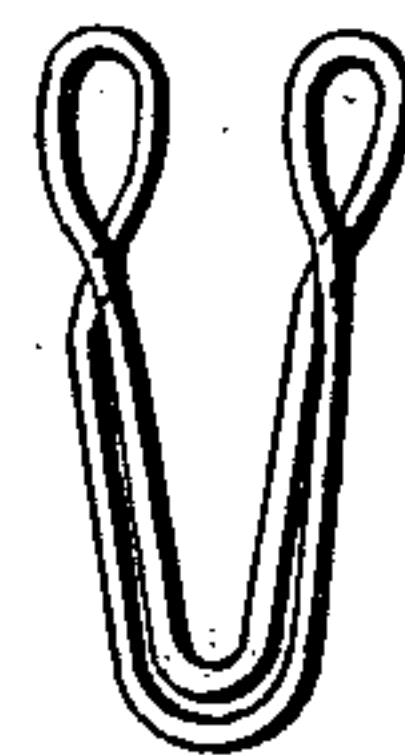


Fig. 2.

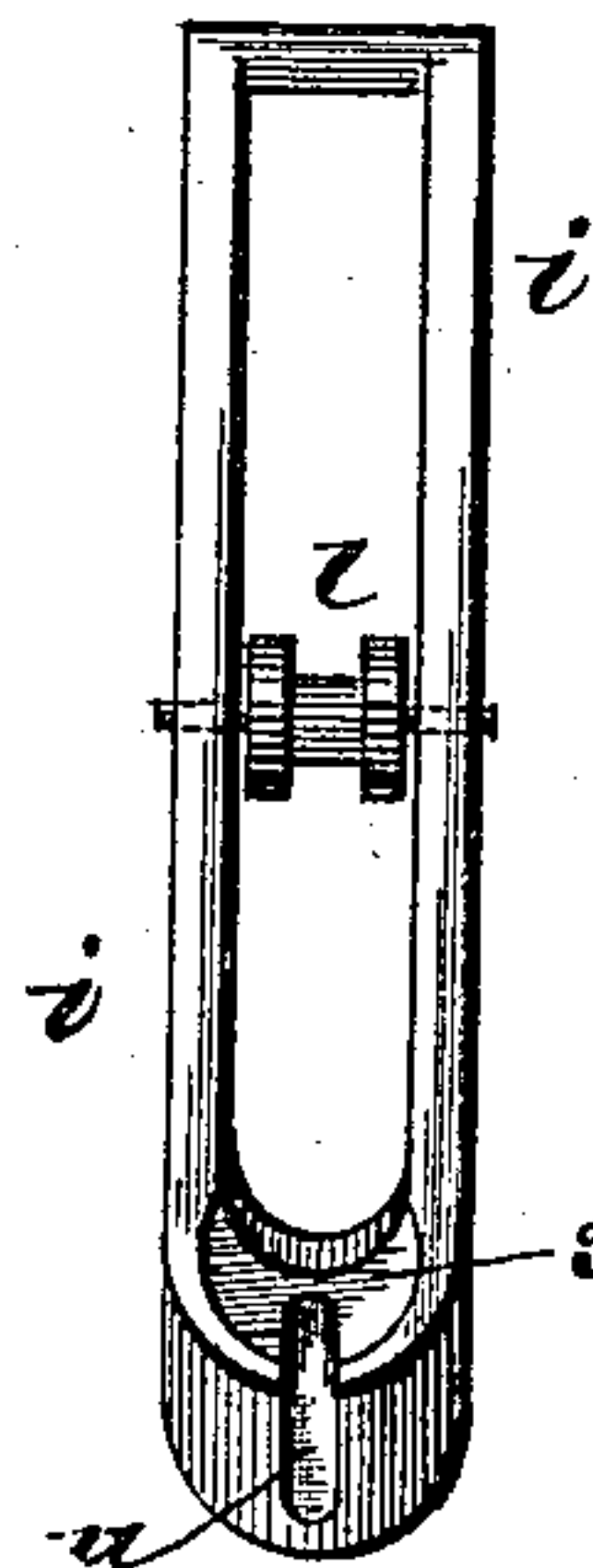


Fig. 3.

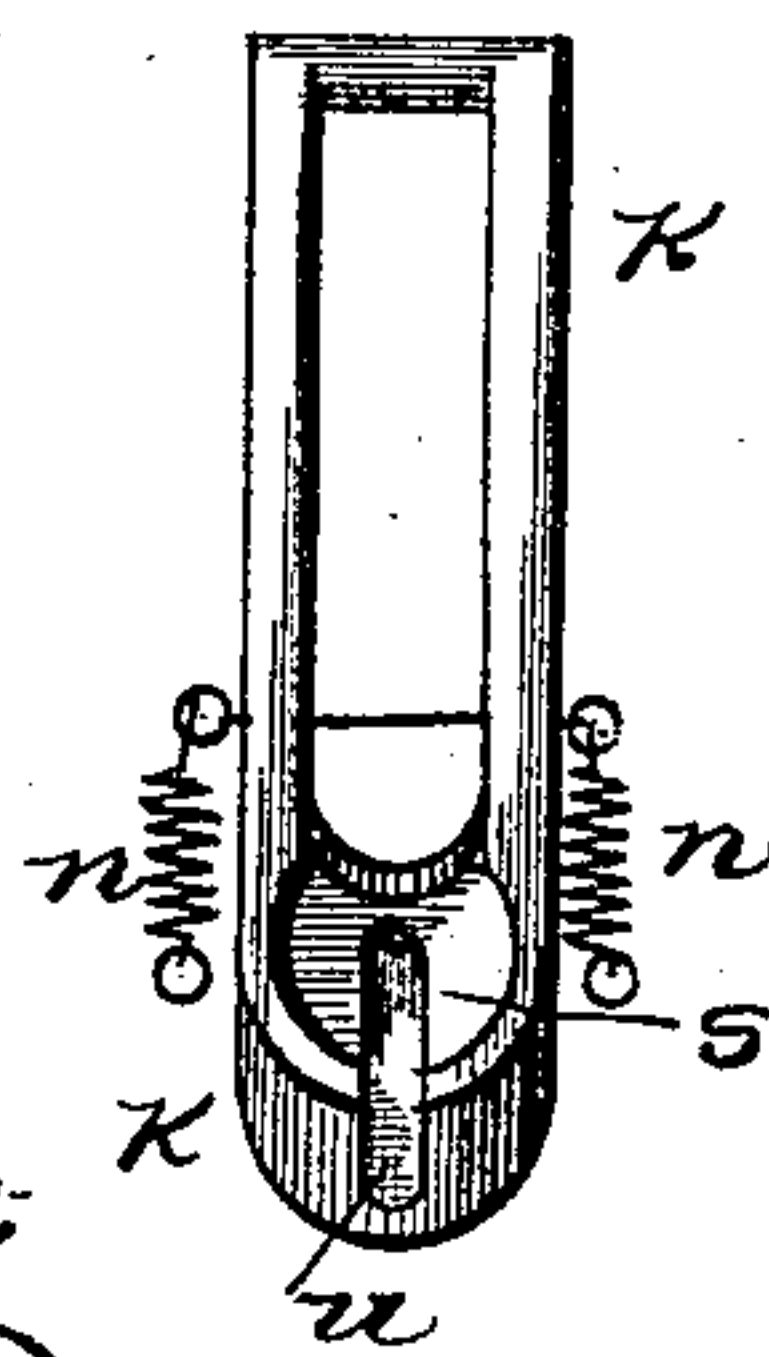
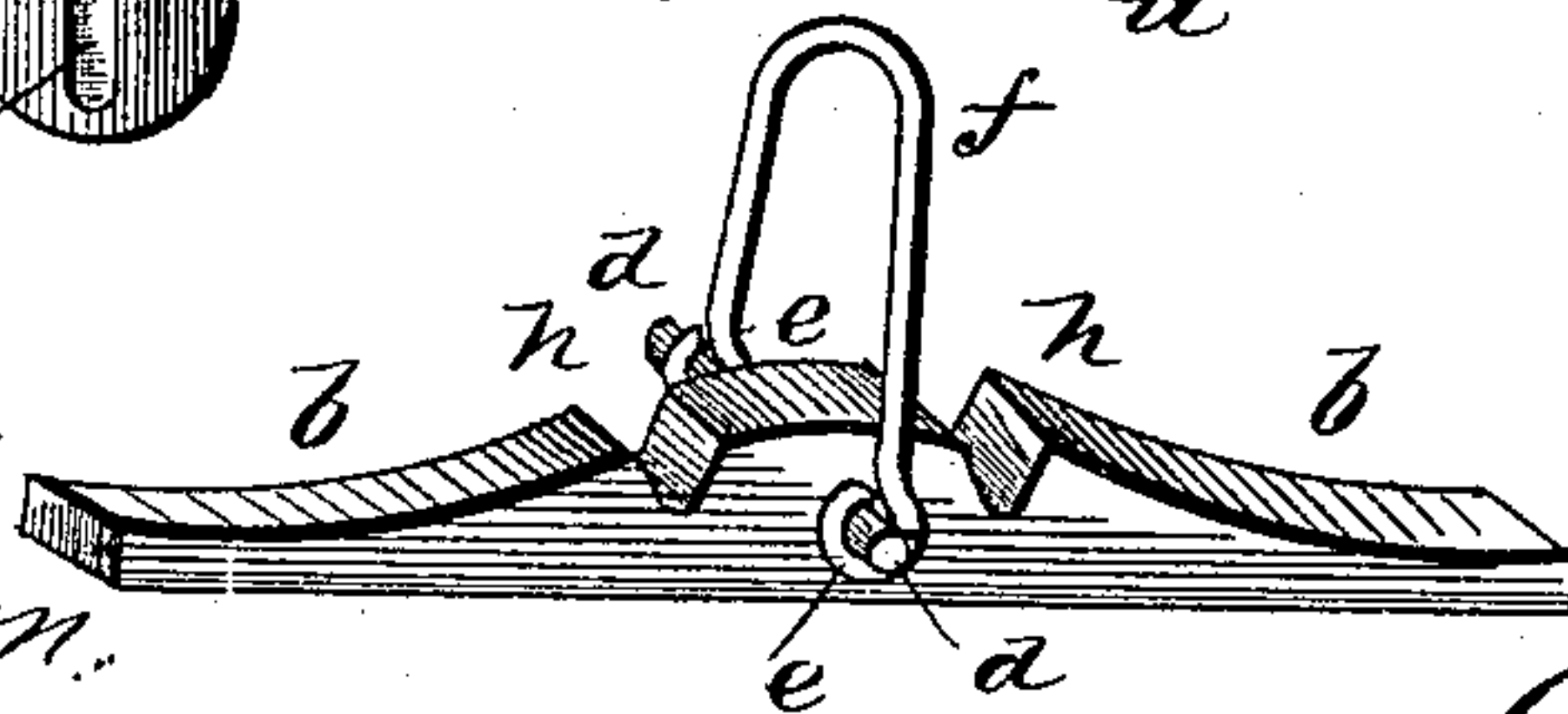


Fig. 4.



Witnesses:
John T. Morrow
Villette Anderson.

Inventor:
Asa A. Howe.

By
Anderson & Smith
his Attorneys.

UNITED STATES PATENT OFFICE.

ASA A. HOWE, OF ULYSSES, PENNSYLVANIA.

STUMP-MACHINE.

SPECIFICATION forming part of Letters Patent No. 292,014, dated January 15, 1884.

Application filed August 14, 1883. (No model.)

To all whom it may concern:

Be it known that I, A. A. HOWE, a citizen of the United States, residing at Ulysses, in the county of Potter and State of Pennsylvania, have invented certain new and useful Improvements in Stump-Machines; and I do declare the following to be a full, clear, and exact description of the invention, such as it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

Figure 1 of the drawings is a representation of my stump-puller in perspective. Fig. 2 is a detail view of the long hook. Fig. 3 is a detail view of the short hook. Figs. 4 and 5 are detail views.

This invention has relation to stump-pullers; and it consists in the construction and novel arrangement of parts, as will be hereinafter fully described, and particularly pointed out in the claims appended.

Referring by letter to the accompanying drawings, *a* designates a wooden lever, provided with an iron cap-plate, *b*, secured thereto by clips *c c* at a point about midway of the length of the lever. The cap-plate *b* is provided with laterally-projecting journals *d d*, which have their bearings in eyes *e e* at the ends of a bail, *f*, which latter engages a ring, *g*, by which the device is suspended from a derrick or other suitable support when being operated.

On each side of the journals *d d*, in the face of the cap-plate *b*, is provided a notch, *h*, one forming a seat for the loop at the upper end of the long grappling-hook *i*, and the other forming a seat for the loop at the upper end of the short grappling-hook *k*. The long grappling-hook *i* is provided with a pulley, *l*, between the arms of the loop, over which the chain *m* passes when the device is being operated. The hooks *i* and *k* are preferably connected by springs *n n*, which draw them together, and cause them to hook into the links of the chain automatically. The points of the

hooks are rounded and inclined from above downward on their inner sides, and are each provided near their points with a lateral depression, *s*, beveled or rounded upward and outward for the reception of the whole link, and a vertical rounded intersecting depression, *u*, for the side of the next link below, the one above resting on the rounded upper portion of the depression *s*. These depressions grip the chain by being drawn against it by the springs *n n*.

The hooks *i* and *k* are designed to engage the links of the chain *m* alternately during the operation of the machine.

The pulley in the loop of the hook *i* is provided to run the slack chain out over the other hook.

The device is cheap, simple, and effective, and affords great power in a comparatively small space.

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

1. In a stump-puller, the hook *i*, having the pulley *l* in its loop and the depressions *s* and *u* near its point, for the reception of the adjacent links of the chain, substantially as specified.

2. In a stump-puller, the combination, with the long hook *i*, having pulley *l* and link depressions *s u*, of the short link *k*, having link depressions *s u*, and supported upon the same lever as the hook *i*, and working above, substantially as specified.

3. In a stump-puller, the combination, with the wooden lever *a*, having the cap-plate *b*, secured thereto by the clips *c c*, and provided with the journals *d d*, bail *f*, notches *h h*, and ring *g*, of the long grappling-hook *i*, having pulley *l*, the short grappling-hook *k*, the springs *n n*, connecting said hook, and the chain *m*, substantially as specified.

In testimony whereof I affix my signature in presence of two witnesses.

ASA A. HOWE.

Witnesses:

THEO. MUNGEN,
JOHN O. MORROW.