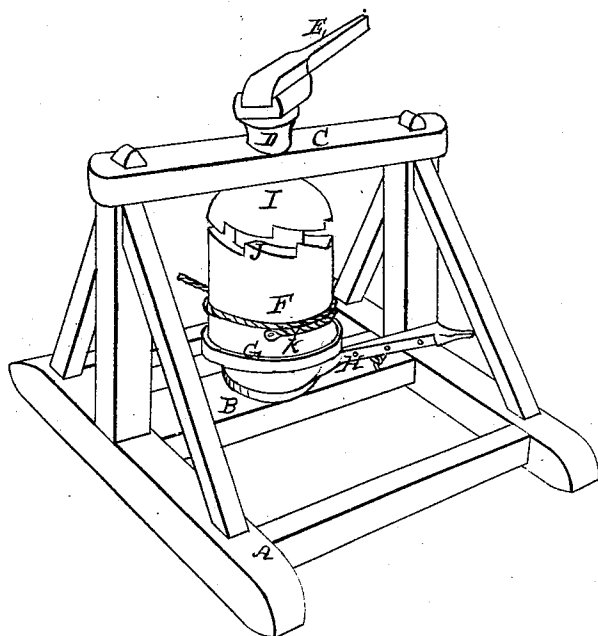


B. B. Newell,

Capstan.

N^o 79,380.

Patented June 30, 1868.



Witnesses
H. S. Sprague
H. F. Eberk

Inventor
B. B. Newell
Per attorney
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United States Patent Office.

BARNUM B. NEWELL, OF CENTREVILLE, MICHIGAN.

Letters Patent No. 79,380, dated June 30, 1868.

IMPROVEMENT IN CAPSTAN FOR GRUBBING-MACHINE.

The Schedule referred to in these Letters Patent and making part of the same.

TO WHOM IT MAY CONCERN:

Be it known that I, BARNUM B. NEWELL, of Centreville, in the county of St. Joseph, and State of Michigan, have invented a new and useful Improvement in Capstan Grubbing-Machines; and I do declare that the following is a true and accurate description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, and being a part of this specification.

Much difficulty has been found to exist in extracting grubs and small stumps from land which it is desired to clear up. Various devices have been patented to accomplish this work, but, as a general thing, they are either too cumbersome, too expensive, and require to be moved too often to be really economical in their operation.

The object of this invention is to adapt a capstan, of peculiar construction, to this work, which may be staked down in a given spot, and which may be made to operate upon every grub within a radius of several hundred feet. In using this machine, it is not necessary to cut off the tops. The cylinder is so constructed that its diameter may be increased to any desired size by setting up a series of staves about it, whose bottom ends should be confined in a proper groove in the flange at the bottom of the cylinder, while the top ends may be held in position by a proper strap or band.

In the construction of my capstan, I build any suitable frame, A, into the centre plate B, of which I set a perpendicular shaft, D, which passes, at its upper end, through the cross-tie C. To the top of this shaft D, I attach the sweep E, to which to attach the team. Loosely sleeved upon this shaft D, I place the cylinder F, provided, near its lower end, with a proper flange and groove, G, in which to set up the staves before mentioned. I also provide a suitable lever and clutch, H, for the purpose of raising or lowering the cylinder, as may be required. Near the top of said shaft D, and below the cross-tie C, and rigidly attached to the shaft, is placed the ratchet-clutch I, which, when the cylinder is raised, by means of the lever and clutch H, is made to engage with the ratchet-teeth J. Upon the top of the cylinder K is a proper rope or chain, one end of which should be fastened near the ground around the grub to be operated upon, while the other passes around the cylinder of the capstan in the usual manner. When the chain or rope is attached as above, the cylinder should be thrown into gear, and the team started. As soon as the grub is extracted, the strain is relieved from the cylinder, which drops out of gear, when the chain may be released, and is ready for another operation.

What I claim as my invention, and desire to secure by Letters Patent, is—

The construction of a capstan, combining the frame A, centre-plate B, cross-tie C, shaft D, sweep E, cylinder F, loosely sleeved upon the shaft D, flange and groove G, lever and clutch H, ratchet-clutch I, ratchet-teeth J, upon the top of the cylinder F, when arranged, constructed, and operating substantially as herein described.

B. B. NEWELL.

Witnesses:

H. S. SPRAGUE,
H. F. EBERTS.