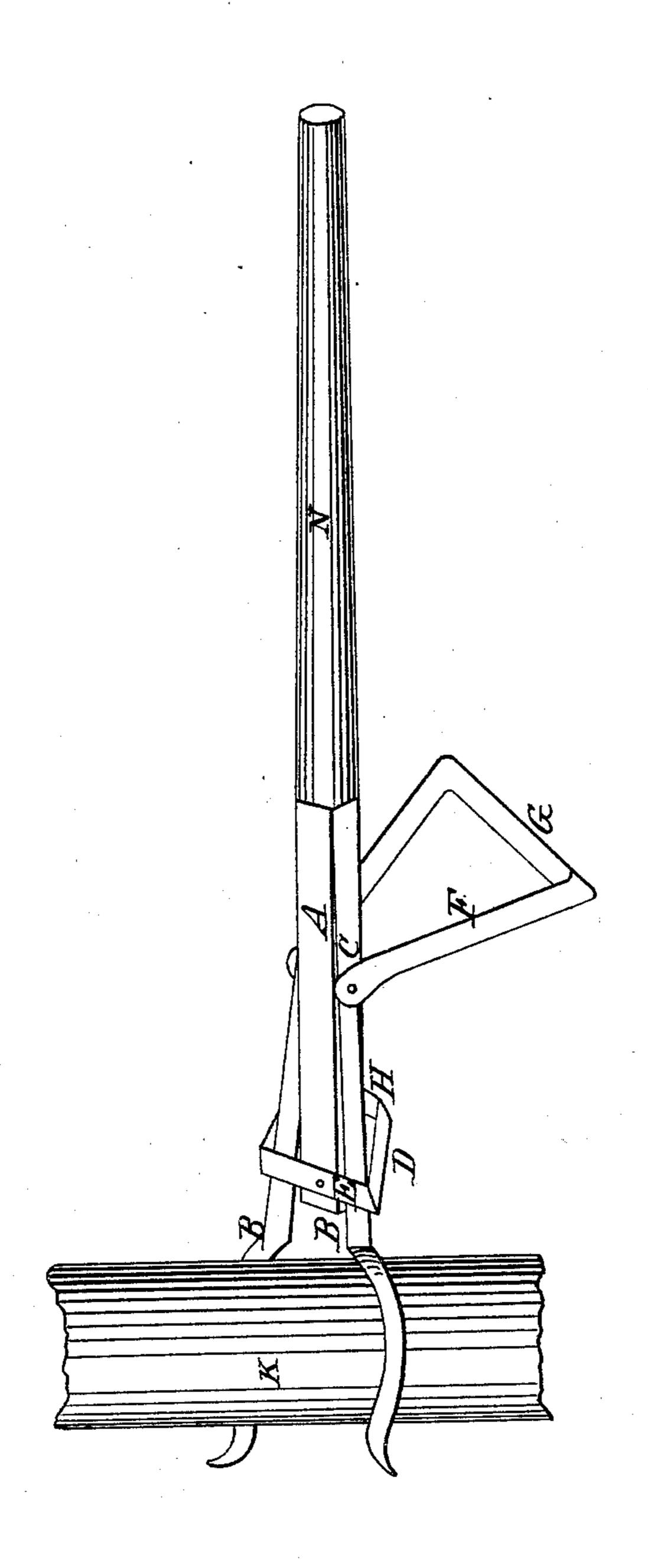
## W. SMITH.

Hop-Pole Puller.

No. 67,365.

Patented July 30, 1867.



Witnesses.

B. P. Richmond Hiram C. Grover

inventor:

M/Swith.

# Anited States Patent Pffice..

#### WILLIAM SMITH, OF NUNDA, NEW YORK

Letters Patent No. 67,365, dated July 30, 1867.

### IMPROVEMENT IN MACHINES FOR PULLING HOP-POLES.

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

#### TO ALL WHOM IT MAY CONCERN:

Be it known that I, William Smith, of Nunda, county of Livingston, and State of New York, have invented a new Machine or Tool for Pulling Hop-Poles. It also may be used for pulling posts or stakes which have been set or driven into the ground for securing threshing-machine power, power for moving buildings, or for any other purpose; also for tightening up grubs in the rafting of lumber; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings and letters of reference marked thereon, making a part of this specification.

To the wooden lever A are attached two iron bevelled jaws, B B, by a bolt, C, which also passes through the ends of the bent fulcrum iron F. The jaws pass through the quadrangular iron band D. This band is made bevelling, the bottom part H being shorter than the upper part E. That part of the lever is also bevelled, so as to allow the jaws to move freely up and down between the band and the lever. A bolt passes through the upper and lower parts of the band and the end of the lever perpendicularly.

This apparatus being placed near a pole to be raised, the bottom G of the fulcrum is laid upon the ground and the jaws made to pass on both sides of the pole. Then, by bearing down the end N of the lever the other end rises; but since the jaws enclose the pole, the lower part of the band is shorter than the upper part. The upward motion of that part of the lever will cause the jaws to grasp the pole firmly, and consequently it is drawn up, thereby enabling one man to raise as many poles, preparatory to the picking of hops, as twenty men would in a given time in the usual way. Consequently my invention is not only a great labor-saving machine, but saves the breaking of the poles and shaking off the hops.

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

The attaching of the iron bevelled jaws to the end of a bevelled lever, and working within a quadrangular band, which gives the jaws a side draught upon the pole, thereby raising it perpendicularly up. The more force applied to the lever the more firmly the jaws grasp the pole or anything that is to be drawn out of the ground.

WM. SMITH.

Witnesses:

PETER CARTER, H. C. GROVER.