2 Sheets—Sheet 1.

# W. K. HOBACK.

## Machine for Making Barrels.

No. 197,134. Patented Nov. 13, 1877.

*Fig. 1.*

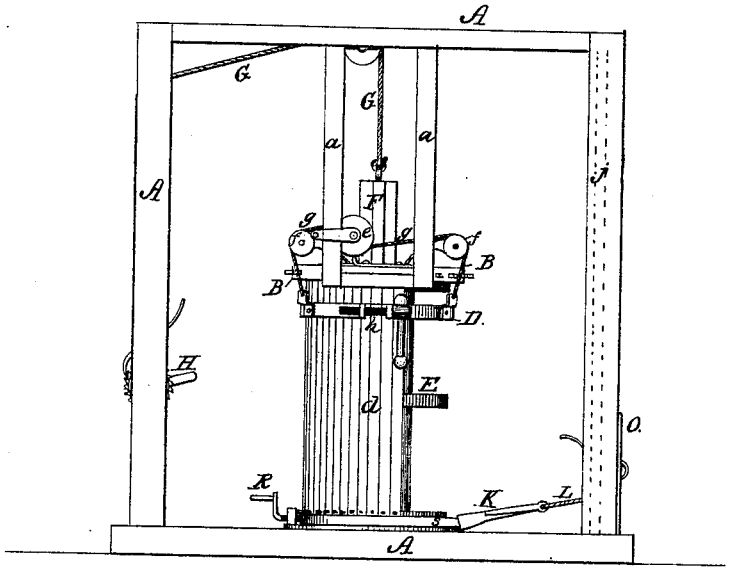
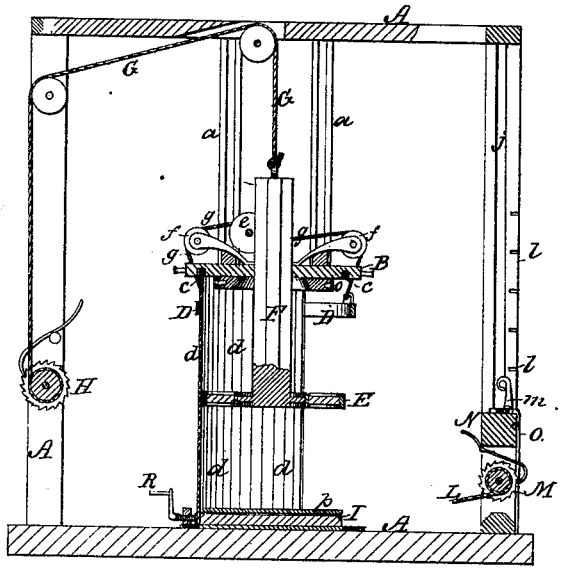



*Fig. 2.*

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Inventor:
William K. Hoback.

2 Sheets—Sheet 2.

# W. K. HOBACK.

## Machine for Making Barrels.

**No. 197,134.** **Patented Nov. 13, 1877.**

*Fig. 3.*

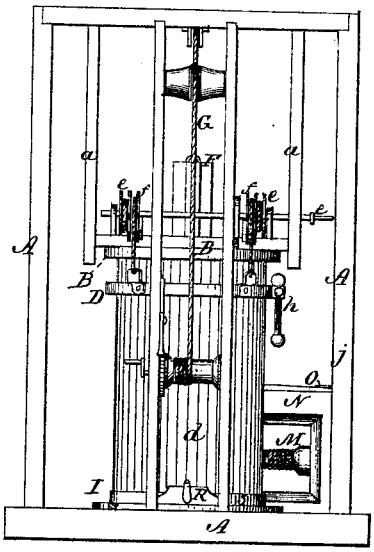
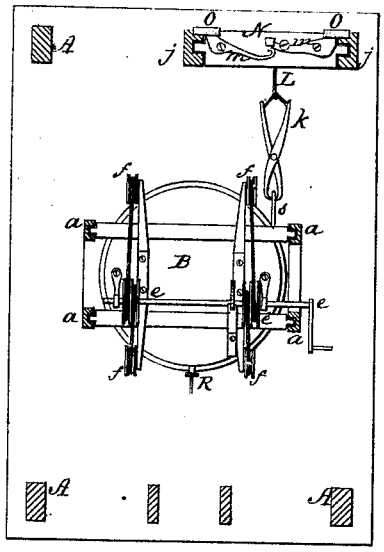



*Fig. 4.*




*Attest.*

E. A. Walsco
J. M. Peck

*Inventor.*

William K. Hoback

# UNITED STATES PATENT OFFICE.

WILLIAM K. HOBACK, OF BENTONVILLE, ARKANSAS.

## IMPROVEMENT IN MACHINES FOR MAKING BARRELS.

Specification forming part of Letters Patent No. **197,134**, dated November 13, 1877; application filed March 30, 1877.

*To all whom it may concern:*

Be it known that I, WILLIAM K. HOBACK, of Bentonville, in the county of Benton and State of Arkansas, have invented a new and Improved Coopering Apparatus; and I do hereby declare that the following is a full, clear, and exact description of the same.

The invention relates to an improved apparatus for use in applying the hoops of barrels, hogsheads, or other casks whose staves are straight and not jointed.

The invention consists in the construction, arrangement, and combination of parts, as hereinafter described and claimed.

In the accompanying drawing, Figures 1 and 2 are, respectively, a side and sectional elevation of the apparatus, with a portion of the staves required to form a barrel or hogshead set up and secured to one of the circular heads. Fig. 3 is another side elevation, and Fig. 4 a horizontal section.

The several movable or working parts of the apparatus are variously attached to and arranged in a rectangular frame, A. From the center of upper part of said frame are pendent four slotted bars, *a a*, serving as a support and guide for the circular plate B, which has a concentric groove, *c*, to receive the upper ends of the staves *d*, and thereby constitute the upper "former." A windlass, *e*, and pulleys *f* are suitably arranged on and attached to the upper side of plate B, for use in raising and lowering the iron band or hoop D by means of the suspending-ropes *g*. Said hoop is divided transversely, and its bent or flanged ends connected by a screw, *h*, so that the hoop may be enlarged or contracted in diameter as required to adapt it to alternately clamp and release the staves.

E indicates a circular anvil or former, having an iron rim. It is fixed on the lower end of a grooved stem, F, which works through a correspondingly-shaped aperture in the grooved plate B, and serves to guide the anvil while being raised or lowered by the rope G and windlass H.

A circular former, I, is fixed to the bed of frame A, and arranged directly under the upper former or plate B.

The clamp K is used for holding the end of a hoop and drawing it tightly around the staves when placed together in proper position—namely, in a circle. The clamp is constructed upon the principle of ice-tongs, and a windlass-rope, L, is attached to it.

The windlass M is mounted in a frame, N, which slides vertically in grooved guides formed by studs *j* of frame A. The studs are provided with notches *l*, to receive the claws or flanges formed on the upper ends of springs O attached to frame N.

Normally, the springs retain such a position that their claws enter the notches *l*, and thus hold the frame N fixed in any position to which it may be adjusted. To push out the springs, and thus disengage the claws from the notches *l*, and allow the windlass-frame N to be adjusted higher or lower, I employ pivoted levers *m*, which may be arranged like the parts of a compound lever, so that by operating one the other will be operated also.

The mode of using the apparatus in setting up and hooping a barrel, hogshead, or other cask, is as follows: The lower head *p* of the cask is first laid upon the lower circular former I, and the upper former B is lowered into the required position, which will always correspond to the length of the staves of the cask. The first stave is set vertically opposite the crank-screw R, with its lower end against the former I and its upper end in the circular groove of former B. The screw R is then turned to clamp the stave in such position, and the latter thereafter serves as a guide by which to set the other staves. As each stave is successively put in place, it may be lightly nailed to the lower former I, as shown in Fig. 1, and its upper end secured by iron pins inserted in holes *o* in the upper former B. In order to crowd the staves as close together as possible, a lever (not shown) of suitable construction is used, its pointed end being inserted in fulcrum-holes in the lower former I.

To apply the first hoop *s* it is nailed at one end to the lower former I, and then drawn taut around the cask by means of the clamp K and windlass M. The circular anvil E is then lowered opposite, by windlass-rope G, into a position opposite the place where the second hoop is to be applied, and the hoop or iron band D is next lowered to a point just above the anvil, and the screw is turned to cause it to clamp the

staves tightly against the anvil. The wooden hoop is then nailed and stretched around the cask, as in the first case, the anvil, in such case, supporting the staves and turning and clinching the points of the nails as they are driven through the staves. The anvil and band D are raised before each succeeding hoop is applied, and the windlass-frame M is also raised correspondingly, in order that the clamp may draw the hoop horizontally, or in a line at right angles to the side of the cask.

The last two hoops may be applied after the former B and band D have been raised clear of the cask. The upper head is then inserted and securely nailed, when, the crank-screw R being loosened, the cask may be removed from the platform.

What I claim is—

1. The combination of the band D, the anvil E, provided with stem F, and the windlasses and ropes for raising and lowering said band and anvil, substantially as shown and described.

2. The combination of the vertically-adjustable frame N, spring-catches, notched guides *j*, windlass M, and clamp, as and for the purpose specified.

WILLIAM K. HOBACK.

Witnesses:
E. P. WATSON,
J. M. PEEL.