A. Cutter,

Making Barrels.

No. 108,113. Patented Oct. 11. 1870.

Fig 1.

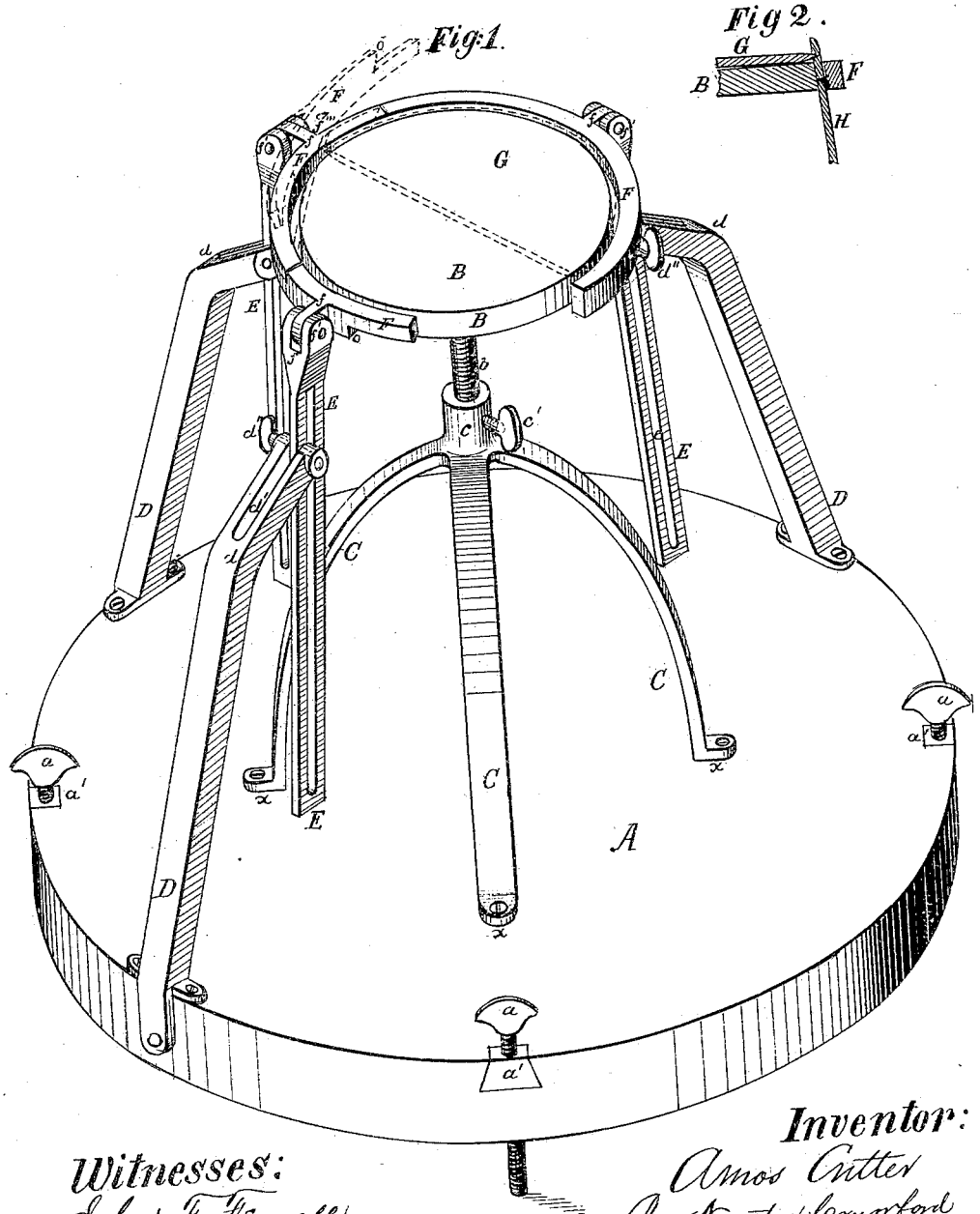

Fig 2.

Witnesses:
John F. Fennell
J. Theodore Laing.

Inventor:
Amos Cutter
By Kerton & Crawford
his attorneys

United States Patent Office.

AMOS CUTTER, OF BOSTON, MASSACHUSETTS.

Letters Patent No. 108,113, dated October 11, 1870.

IMPROVEMENT IN MACHINES FOR SETTING UP BARRELS.

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

I, AMOS CUTTER, of Boston, in the county of Suffolk, in the State of Massachusetts, have invented certain Improvements in Machines for Setting Staves in Barrels, of which the following is a specification.

The object of this invention is to supply a machine in and by which the staves are placed and held around the barrel-head, and in position to be trussed and hooped; and

It consists in the construction and arrangement of the parts that produce the result sought for.

In the drawing—

Figure 1 is a perspective view of the machine, and

Figure 2 is a view in section of some of the details.

A represents an adjustable platform or table, which can be adjusted to any desired height by the adjusting-screws *a* working in nuts *a'*.

These screws *a* act to raise the table A from the floor upon which the machine stands.

B is an adjustable circular table, less in diameter than the head of a barrel, and is attached to and can be revolved with and adjusted to any desired height from the table A, by means of the long screw-rod *b*, which goes from the under side of table B through platform A at its center, and is supported by means of any sufficient number of legs C C C, attached firmly to the upper side of platform A by the feet *x x*, as seen in fig. 1, or by any other convenient means, and having screw-nut *c* connect them together at their upper ends, (or cast therewith as may be,) so that screw-rod *b* will pass through screw-nut *c*, down between legs C C C, and through a hole in the center of platform A.

The screw-rod *b*, when the table B is adjusted at the right height from platfrom A, is held in its position by set-screws *c'*.

D D D are inclined, bent, and slotted supports that receive the pivoted and slotted levers E E E in the slots *d'* above bent shoulders *d*, the slots *e* sliding on clamp-screw *d''*.

Slotted levers E freely slide in slot *d'* of supports D, and, when adjusted to the proper position, are held in such position by clamp-screws *d''*, at the upper ends of supports D.

F F F are circular clamp-jaws, and of the form seen in fig. 1, and embracing three-fourths, more or less, of the periphery of table B, and are hinged or pivoted to the upper end of slotted levers E, at *f'*, by lug *f* in slot *f''*.

Clamp-jaws F, at points where they meet, are halved in such way that the upper part of one is cut away on its top, and its fellow is cut away on its bottom half, so that, when they are brought together, the joint is not in a single point, and as seen in fig. 1, at *o*.

In the center one of the three clamp-jaws F is a pointed spur or pin, *f'''*, which, when a stave is placed between the clamp-jaw F and edge of table B, and the clamp acting upon it, will hold the stave in place, and allow other staves to be placed on each side of the first one, and between the clamp F and table B.

G in fig. 2 represents a section of the head of a barrel, and resting upon table B.

H is the stave, held in position, and the crozing pressed by clamp F upon the head G.

The distance from the platform A to the top of table B is varied to suit the length of the staves to be set up into the barrel, which is done by turning the table and screw-rod *b* around in nut *c*, when the table will be raised or lowered, as desired, and held in the position by set-screw *c'*.

If short staves are to be set up, the table will have to be turned and screwed down to the proper height above platform A, but in doing so the screw-rod *b* may strike the floor, which is prevented by turning screws *a*, which bear upon the floor, so as to raise the platform high enough to give the proper space between it and the floor for the screw-rod *b* to be turned down and not touch the floor.

The clamp-jaws or stave-holders are adjusted to be at the proper height for holding the staves upon the head, and allowing a hoop to be placed upon the end of the barrel, by means of releasing holding-screw *d''*, and sliding the slotted lever up or down as far as necessary to bring the clamps to the right height when the set-screw *d''* is turned hard up, and clamp the lever in slot *d'* of support D, thus holding the clamps at the right height for forcing the crozing of staves upon the barrel-head.

Operation.

Bring the bottom ends of slotted levers toward the screw-rod *b*, so as to throw the clamp-jaws F away from table B far enough to receive easily the thickness of a stave; place the head G centrally upon the table B; place the first stave, one end resting on the platform, so that the center of its width will come at pin *f'''*; then throw the lower end of clamp-lever F out toward the support D, which will hold the stave firmly in its place upon the head; both hands of the operator are now free, and he grasps a stave in each hand, and places them on either side of the one first clamped, by sliding them sidewise between the table and clamp, continuing this until the first clamp-jaw is full, when the other two clamp-jaws are brought up to their position, when the staves are placed between them and the table to the open space between the clamp-jaws, when the two or three remaining staves are held by one hand of the operator, while he uses the other to place the truss-hoop around the end of

the barrel, when his hands are relieved, and he can drive the truss-hoop home, firmly binding and setting the staves together, and upon the head, when the clamping-jaws are all forced away from contact with the staves, and the unfinished barrel taken from the machine.

Having thus described my invention,

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

1. The curved clamp-jaws F, hinged to slotted levers E, constructed and arranged to operate in the manner shown and described.

2. The table B, when constructed to be adjusted with relation to platform A, in the manner and for the purpose shown.

3. The combination of the clamp-jaws F, arranged to operate as described, with the adjustable table B, for the purpose shown.

AMOS CUTTER.

Witnesses:

EDM. F. BROWN,

NEWTON CRAWFORD.