A. Wilbur,

Coring Stares.

No. 10,684. Patented Mar. 21, 1854.

Fig: 1.

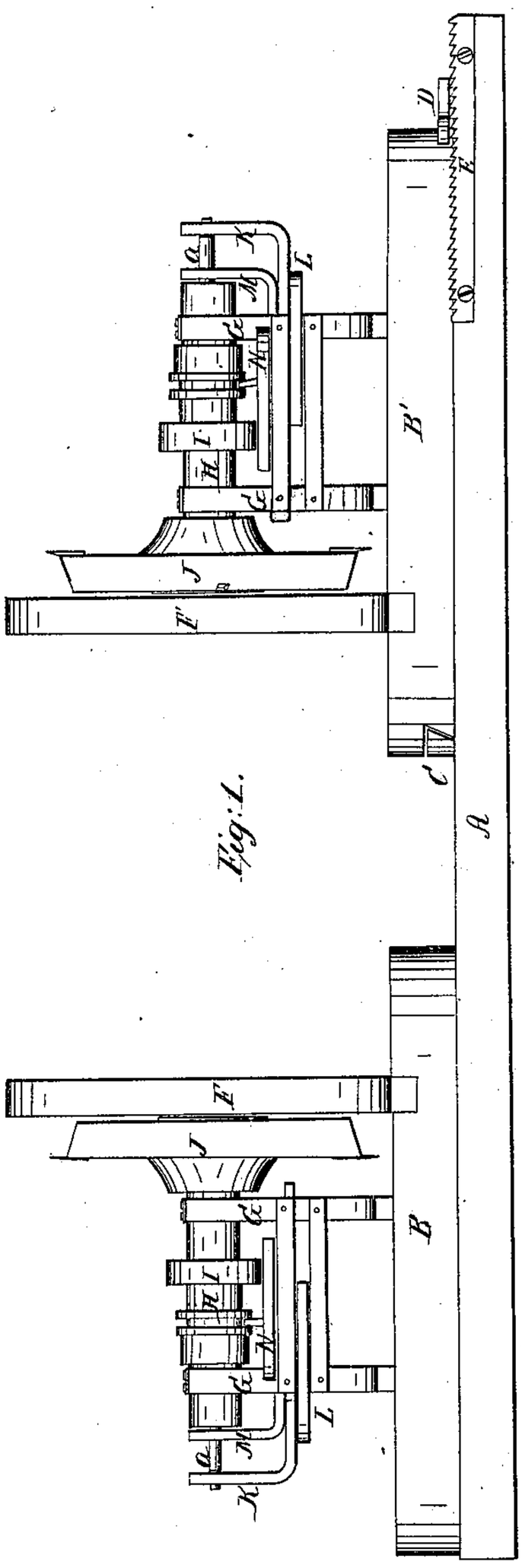


Fig: 2.

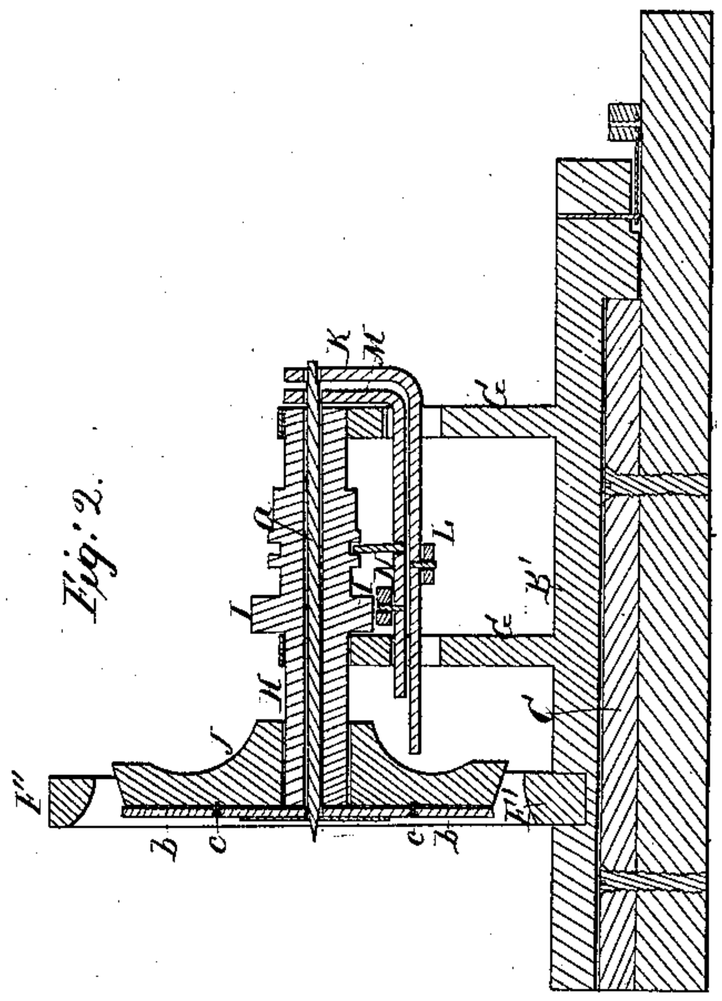
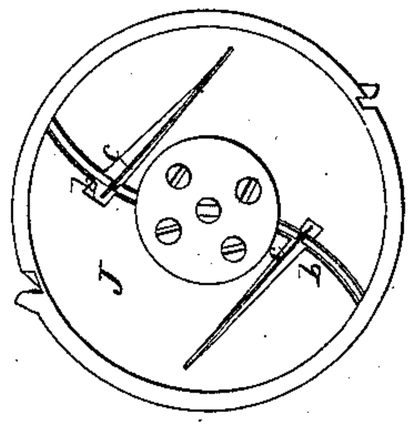


Fig: 3.



UNITED STATES PATENT OFFICE.

ALEXANDER WILBUR, OF LANCASTER, PENNSYLVANIA.

CROZING-MACHINE.

Specification of Letters Patent No. 10,684, dated March 21, 1854.

To all whom it may concern:

Be it known that I, ALEXANDER WILBUR, of the city and county of Lancaster and State of Pennsylvania, have invented certain new and useful Improvements in Barrel Machinery; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part thereof, in which—

Figure 1 denotes a side view. Fig. 2, represents a vertical section taken longitudinally through one half of the machine (both ends being the same), and Fig. 3 represents a view of the face of one of the cutter wheels.

Similar letters in the several figures denote like parts.

The nature of my invention relates to the manner of hanging and operating the crozing tools, so that they may be brought into, or thrown out of operation without stopping the rotation of the cutter wheels, upon which they are placed.

To enable others skilled in the art to make and use my invention, I will proceed to describe the same with reference to the drawings.

A, represents the bench or table upon which the machine stands, and B, B^1, the base or supports upon which the parts are placed, the one B, being fixed permanently, and the other B^1 movable, on a dovetailed tongue C, so as to be adapted to barrels of different lengths, and to enable the operator to readily place the barrels in the machine, and remove them when dressed.

D, is a lever for operating the base B^1, and E, a rack, into which a catch or projection on the lever drops to hold the barrel firmly while being operated upon by the several knives or cutters.

F, F^1, are two rims or wheels fixed rigidly to their respective bases B, B^1—the one F, immovable, the other F^1, sliding with its base. The barrel to be dressed, has one of its ends first slipped into the ring, rim or wheel F; the base B^1 with its corresponding ring F^1 is slid up by lever D, and the barrel is firmly clamped in these rings, where it is held while being operated upon at both ends by the end dressing, chamfering, crozing (and howeling if used) knives.

G, G, are upright supports on each of the pieces B, B^1, in the tops of which are made proper bearings for the shafts H, H, to rotate in, each of said shafts being provided with pulleys I, I, for a belt or band from any first mover to pass over, to give them motion. The inner ends of each of the shafts carry a disk or cutter wheel J, to which is attached the several cutters for dressing each end of the barrel, and cutting the croze for the heads. The shafts H, H, are hollow, or suitably bored out to receive the rods *a*, *a*, which are connected to a sliding piece K, at each end of the machine, said sliding pieces being operated by their respective levers L, L. Sliding pieces M, M, are also connected to the outer ends of the shafts H, H, which are moved by their respective levers N, N, these levers and sliding pieces being so arranged as that they may be operated separately as will be hereafter explained.

In suitable grooves on the face of the disks, or cutter wheels J, are arranged the crozing tools *b*, *b*, Fig. 3, of which there may be one, two, or more. These crozing tools are restrained within the periphery of the cutter wheels, by springs C, C, and when they are to be thrown into operation, which is after the chamfering is done, the levers L, L, are drawn toward each other, which forces the rods *a*, *a*, through the shafts and their points, which are tapered for the purpose as seen in Fig. 3, between the ends of the crozing tools, or the pieces to which the crozing tools may be attached, and forces them out. This is done gradually so that they may not take too rank a hold on the wood. When the croze is cut, the levers are swung back, and the springs *c*, *c*, immediately draw in the crozers.

The operation will be clearly understood from the drawings. The barrel after it is set up, is firmly clamped in the rings F, the levers N, are then drawn toward each other, which drives up the cutter wheels into the ends of the barrel; by its rapid rotation each wheel dresses one of the ends, and does the chamfering. The levers L, are now drawn toward each other, which throws out the crozing tools, which finishes the dressing. The levers are then turned back, and the lever D, released from the rack, and the base B^1, run back when the barrel is released, and the machine ready to receive another barrel. The rotation of the cutter wheels is constant, and not interfering with the removal or replacing of the barrels, and much time is saved thereby,

for if the cutter wheels had to be stopped and again started at each operation, there would be little economy in machine over hand work.

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

So combining the crozing tool with the cutter head as that said crozing tool may be thrown into or out of operation while the cutter head continues its rotation, by means of the center pin or its equivalent substantially as described.

ALEXANDER WILBUR.

Witnesses:
A. B. STOUGHTON,
SAML. GRUBB.