J. H. Mattison,

Making Barrel Heads,

No. 19,510, Patented Mar. 2, 1858.

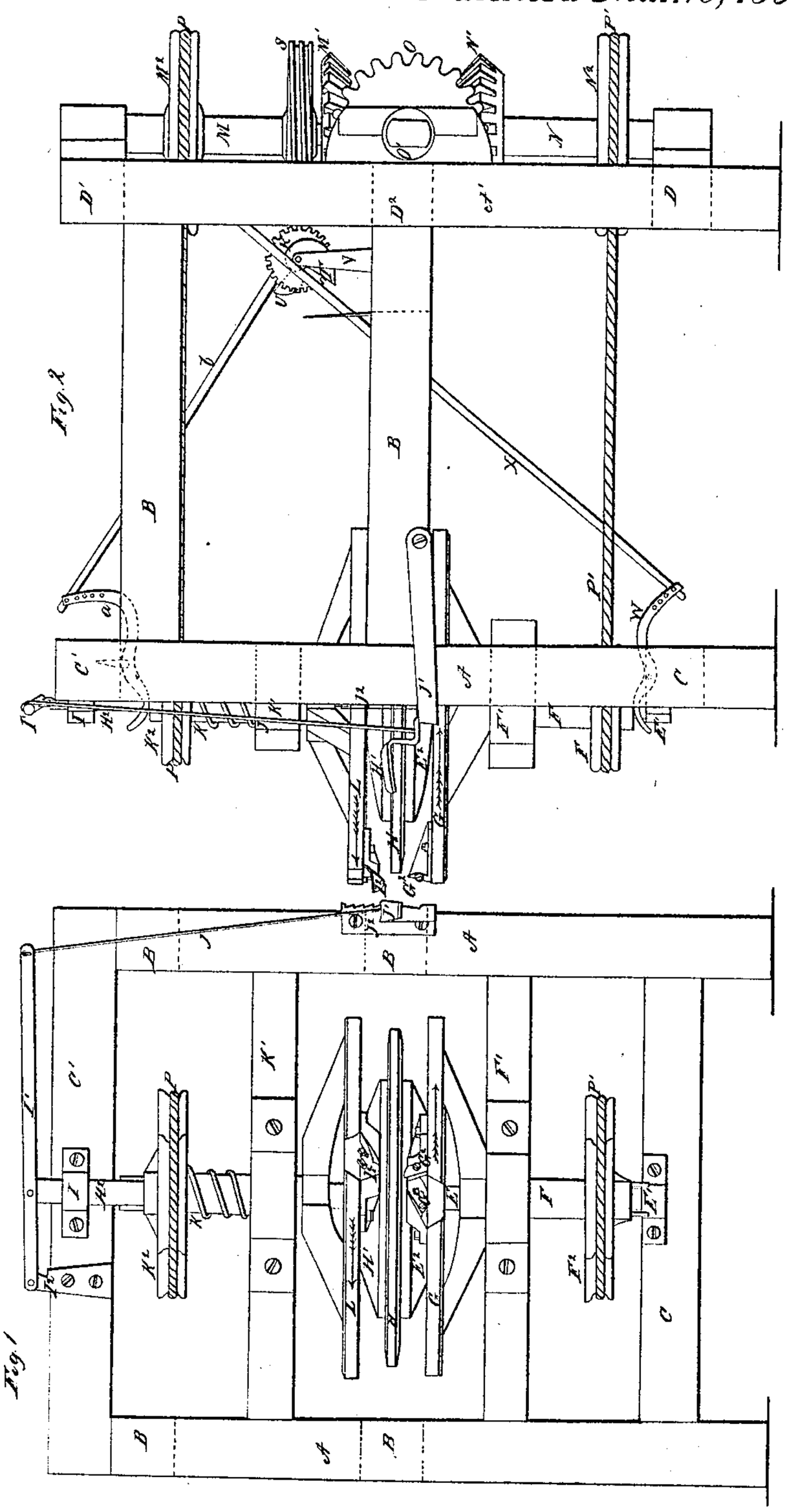

Fig. 2

Fig. 1

UNITED STATES PATENT OFFICE.

JAS. H. MATTISON, OF SCRIBA, NEW YORK.

MACHINE FOR CUTTING BARREL-HEADS.

Specification of Letters Patent No. 19,510, dated March 2, 1858.

To all whom it may concern:

Be it known that I, JAMES H. MATTISON, of Scriba, in the county of Oswego and State of New York, have invented a new and useful Machine for Cutting the Heads of Casks and Circular Pieces of Wood for other Purposes; and I do hereby declare that the same is described and represented in the following specifications and drawings.

To enable others skilled in the art to make and use my invention I will proceed to describe its construction and operation referring to the drawings in which the same letters indicate like parts in each of the figures.

Figure 1 is the elevation of the front of the machine; Fig. 2, an elevation of one side.

The nature of my invention consists in some devices for traversing the disk cutters so as to operate upon the heading either at the same time or alternately.

In the accompanying drawings A, A, are front posts; A′ A′ back posts connected by the bars B, B, B, B, and the front posts by the bar C, and top rail C′, and the back posts by the bar D, and top rail D′, the whole forming a quadrangular frame, to which the other parts are attached or connected.

E, is a round stationary shaft with a square end clamped by the cap E′, to the bar C, to prevent it from turning. The disk E^2, is fastened to the upper end of the shaft E, and may be provided with spurs to hold the heading while it is being shaped, as will be hereafter described.

F, is a hollow shaft turning on the shaft E, and supported by the bar F′, fastened to the front posts. This shaft F, is provided with a pulley F^2, to turn it and carry the planing disk G fastened to its upper end. This disk G, may have one or more beveling cutters G′, fastened to it to bevel the under edge of the head; and one or more spur cutters G^2 to form the edge of the head H, on the disk E^2, against which it is clamped by the disk H′, on the stationary traversing shaft H^2, which traverses under the cap I, on the top bar C′, and is prevented from turning by the lever I′ connected to it and by which it is operated to clamp the heading and release the head H, after it is formed or cut as desired. The piece I^2 is fastened to the top bar to form the fulcrum of the lever I′, and the rod J, connects the opposite end of said lever to the lever J′, which vibrates on a screw in the bar B, and is pressed down by the operator to clamp the heading between the disks E^2 and H′, and pressed into one of the notches in the piece J^2, on the post A, so as to hold the heading, until the head is formed when the lever may be pulled out and raised up to release the head H.

K, is a hollow shaft turning on the shaft H^2, and supported by the bar K′, fastened to the posts A, A. This shaft is provided with a pulley K^2, for a band to turn it and carry the disk L, fastened to its lower end. The disk L, may have one or more cutters like L^2, fastened to its underside to shape the upper side of the head H, and complete it.

In order to turn the disks which carry the cutters, I make two short shafts M, and N, and fit them to turn in boxes fastened to the bars D,—D′, and middle bar D^2 one right over the other and fasten the bevel gears M′ and N′, to them which gears are acted upon by the gear O, on the shaft O′, which turns in boxes fastened to the posts A′, and bar D^2; to which shaft a pulley may be applied for a band, to operate the machine.

The shaft M, carries the pulley M^2, and band P, to turn the disk L, in the direction of the arrow upon it. And the shaft N, carries the pulley N^2 and band P′, to turn the disk G in the direction of the arrow marked upon it opposite to the direction in which the disk L, is turned, so that the heading may be held easier, than if both of the cutting disks turned in one direction. The disk L, is held up by the spring Q, between the bar K and pulley, K^2, and the disk G descends after it is raised by its own weight..

In order to traverse the disks G, and L, and bring the cutters in contact with the heading, I fasten the screw S, an the shaft M, to turn the gear R, and cams T, and V, which gear and cams are fastened to a shaft fitted to turn in two stands on the bar one of which stands is shown at *v*, Fig. 2. The crooked forked lever W, vibrates on a pin in the bar C, and is connected to the slotted bar X, which is operated by the cam T so as to raise the disk G and bring the cutters in contact with the heading to form the head, and then let it descend again. The crooked forked lever *a* vibrates on a

staple in the top bar C′, and is connected to the bar *b*, which is traversed by the cam U, so as to depress the disk L, and bring its cutters in contact with the heading to form the upper side of the head and cut into the score formed by the cutter on the disk G, after that disk has descended, so as to sever the superfluous portion of the heading from the head. The bars X and G, have long slots in them in which the cams T, and U, work so as to traverse the disks. The cams T, and U, are shaped so as to traverse the disks and cutters fast when they begin to cut, and gradually slower until they have finished the head; and the cams are so arranged as to raise the lower disk and cutters, and let them finish their work and drop down before the upper disk and cutters come down, and cut into the score made by the lower disk, so that the upper cutter may separate the superfluous portion of the wood from the head, without coming in contact with the lower cutter. By changing the position of the pins, that connect the bars to the crooked levers, the edges of the heads may be made thick or thin as desired.

I contemplate that my invention may be used for cutting circular pieces of wood for other purposes, besides the heads of casks.

I believe I have described and represented the machine which I have invented, so as to enable any person skilled in the art to make and use it, I will now state what I desire to secure by Letters Patent.

I claim—

Automatically transversing the disk cutters, in any manner substantially as described, for the purpose of operating upon the heading, either at the same time or alternately.

JAS. H. MATTISON.

Witnesses:
ROBERT SIMPSON,
SOLOMON MATTISON.