# J. S. Thompson,

## Making Barrel Heads,

No. 52,772, Patented Feb. 20, 1866.

Fig. 1.

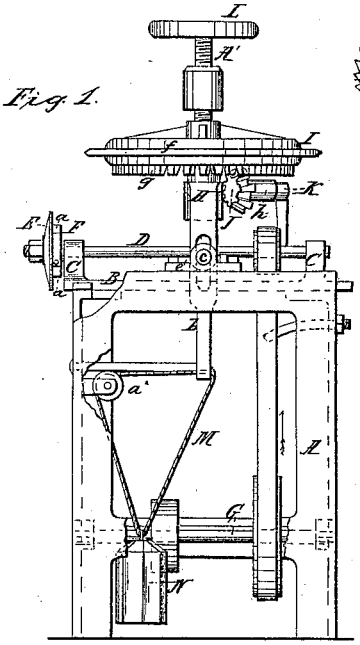


Fig. 4.

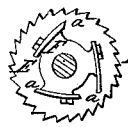


Fig. 2.



Fig. 3.

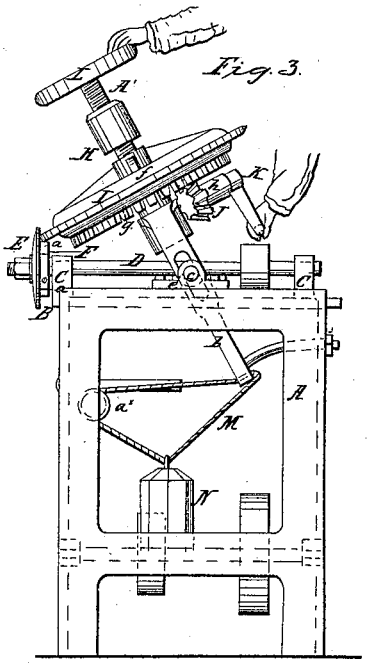
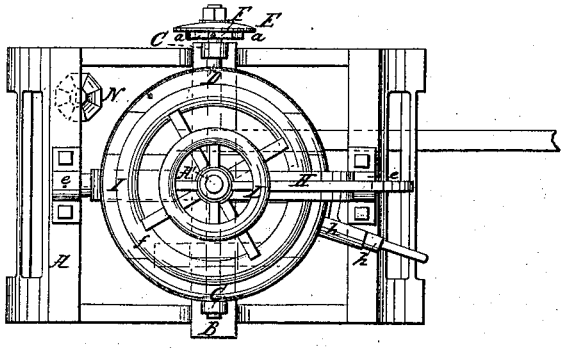


Fig. 5.



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# UNITED STATES PATENT OFFICE.

JOHN S. THOMPSON, GLENS FALLS, NEW YORK.

## IMPROVEMENT IN BARREL-HEAD MACHINE.

Specification forming part of Letters Patent No. **52,772**, dated February 20, 1866.

*To all whom it may concern:*

Be it known that I, JOHN S. THOMPSON, of Glens Falls, in the county of Warren and State of New York, have invented a new and Improved Machine for Cutting Barrel-Heads; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a side elevation of my invention; Fig. 2, a rear elevation of the same; Fig. 3, a side elevation, the same as shown in Fig. 1, with a different position of the parts; Fig. 4, a detached inner side view of the saw and the cutter-head pertaining to the same; Fig. 5, a plan or top view of the invention.

Similar letters of reference indicate corresponding parts.

This invention consists in the employment or use of a circular, concave, or dish-shaped saw and cutter-head, placed on an adjustable arbor in connection with an adjustable or swinging rotating clamp, all arranged to operate in such a manner that barrel-heads of different sizes or diameter may be sawed with one and the same machine, and the work done very expeditiously and in a perfect manner.

A represents the framing of the machine, which may be constructed of metal or wood, and in any proper manner to support the working parts. On this framing A there is placed an adjustable bar, B, having an upright, C C, at each end, which serve as bearings for a horizontal arbor or shaft, D, on one end of which a circular concaved or dish-shaped saw, E, is fitted, having a cutter-head, F, at its inner concave side to which cutters *a* are attached—three, more or less.

The bar B is fitted upon the framing A in such a manner that it may be moved or adjusted longitudinally and secured at any desired point by keys or bolts.

The saw-arbor is rotated by means of a belt from a driving-shaft, G, in the lower part of the framing.

H represents a yoke of curved U form, and provided with two pendants, *b b*, which are slotted longitudinally and have journals *c* passing through them, secured by jam-nuts *d d*. The journals *c* are fitted in bearings *e e* on the framing A, the axes of the journals *c c* being at right angles to the saw-arbor D, as shown clearly in Fig. 5.

Within the yoke H there is a clamp, I, composed of two parts, *f g*, the lower part, *g*, being of circular form, and having a pendent central arbor fitted in the lower part of the yoke. This part *g* is toothed at its under side, and into these teeth a bevel-pinion, J, gears, the shaft K of said pinion having its bearing *h* attached to the yoke H. The upper part, *f*, of the clamp is of circular form and is fitted closely on the lower end of a screw, A′, which passes through the upper part of the yoke H, and has a hand-wheel, L, on its upper end. The two parts, *f g*, of the clamp are of the same diameter.

The pieces of which the barrel-head is formed are clamped between the two parts *f g*, by screwing down the upper part, *f*, and when the pieces are thus clamped or secured, the operator tilts over the yoke H, as shown in Fig. 3, so that the pieces will come in contact with the saw, and the clamp is then turned by turning the shaft K, by hand or otherwise, and the pieces in the clamp being rotated, of course, with the clamp, will be cut in circular form.

The inclination of the clamp and the pieces within it causes the saw to cut one bevel on the barrel-head, the other bevel being cut by the cutters *a*, as will be fully understood by referring to Fig. 3. By shifting the bar B so that the saw and cutters may be at different distances from the clamp, heads of different diameters may be cut, the yoke H being adjusted higher or lower by loosening the jam-nuts *d*, of the journals *c*, on which the yoke H is moved.

The lower end of one of the pendants *b* has a hole made in it for a cord or rope, M, to pass through, on which there is a weight, N, said cord or rope passing over a pulley $a^{\times}$, in a bracket attached to the framing. This weight serves to bring the yoke and clamp back to their original position after a head is sawed or cut.

The pieces may be readily adjusted in the clamp when the yoke is in an upright position, and the finished head readily removed therefrom.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The circular dish-shaped saw E and cut-

ter-head F, provided with cutters *a*, in combination with a rotary clamp, I, fitted to a swinging yoke, H, substantially as and for the purpose herein set forth.

2. Having the bar B, to which the supports or bearings C of the saw-arbor D are attached arranged so as to be capable of being adjusted longitudinally, in combination with the adjustable yoke H, in which the clamp I is fitted, all being arranged substantially as shown and described, for the purpose of adapting the machine to cut heads of different sizes or diameter.

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