2 Sheets--Sheet 1.

B. BARKER.

Machine for Jointing Staves.

No. 168,125. Patented Sept. 28, 1875.

Fig. 1.

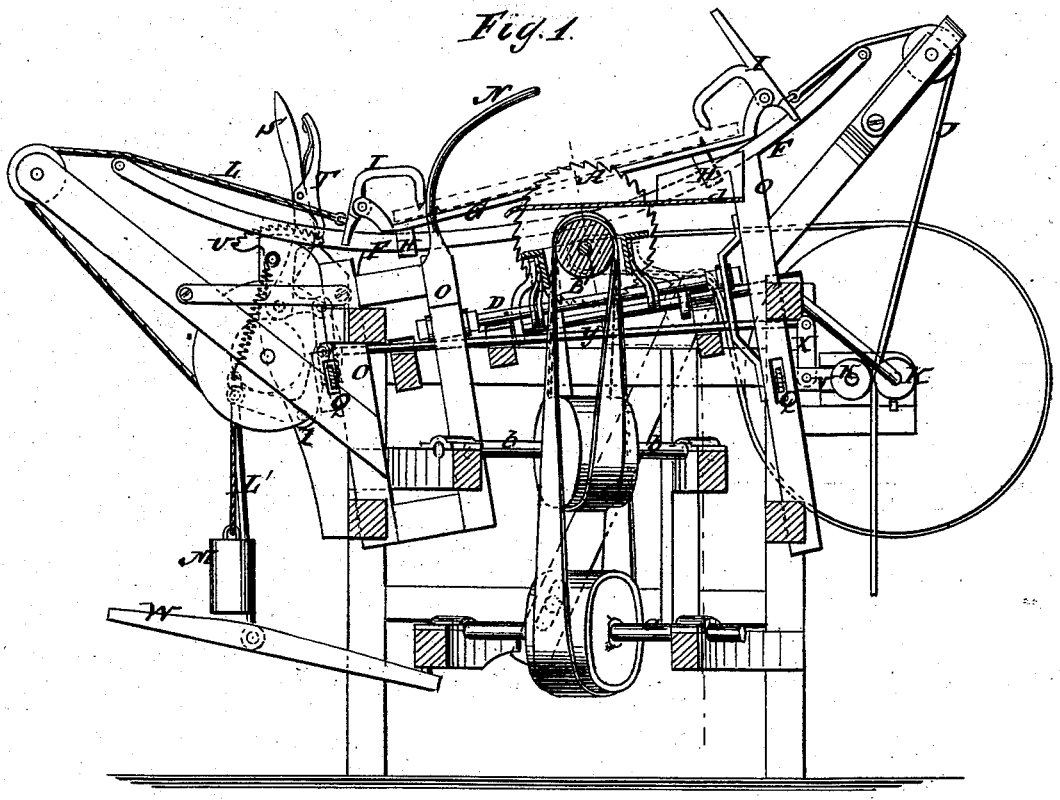
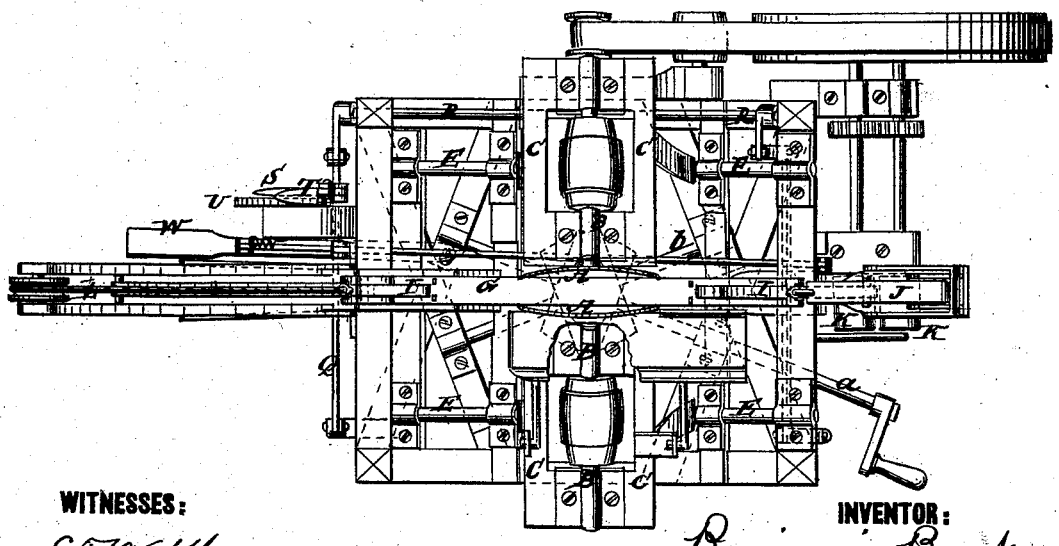


Fig. 2.



WITNESSES:

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A. F. Seery

INVENTOR:

Benjamin Barker

BY

ATTORNEYS.

2 Sheets--Sheet 2.

B. BARKER.

Machine for Jointing Staves.

No. 168,125. Patented Sept. 28, 1875.

Fig. 3.

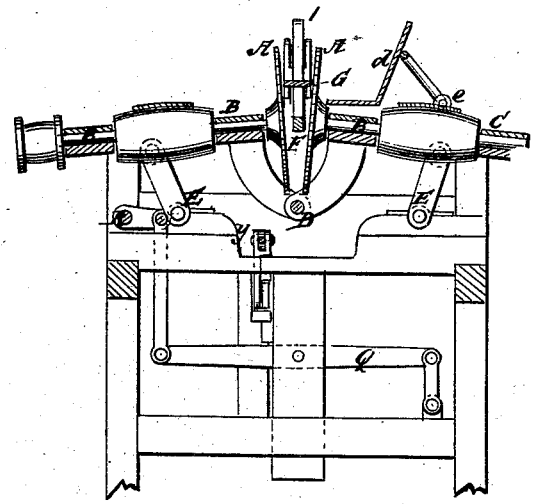
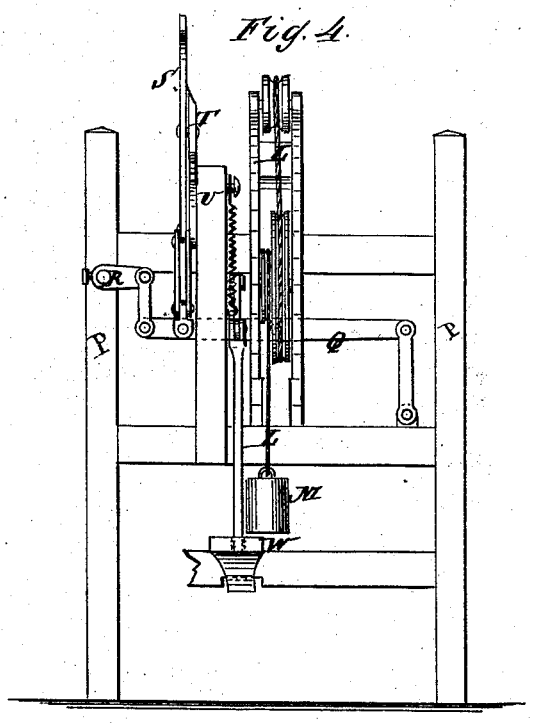


Fig. 4.



WITNESSES:

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UNITED STATES PATENT OFFICE.

BENJAMIN BARKER, OF ELLSWORTH, MAINE.

IMPROVEMENT IN MACHINES FOR JOINTING STAVES.

Specification forming part of Letters Patent No. **168,125**, dated September 28, 1875; application filed July 3, 1875.

To all whom it may concern:

Be it known that I, BENJAMIN BARKER, of Ellsworth, in the county of Hancock and State of Maine, have invented an Improvement in Stave-Jointing Machines, of which the following is a specification:

The invention will first be fully described in connection with drawing, and then pointed out in the claims.

Figure 1 is a longitudinal sectional elevation of my improved machine. Fig. 2 is a plan view. Fig. 3 is a cross-section, and Fig. 4 is an end elevation, showing some of the parts.

Similar letters of reference indicate corresponding parts.

A represents the saws; B, the arbors of the saws; C, the saw-frames; D, the axial bar, and E the cranks on which the saw-frames are mounted; F, the curved track, and G the straight carriage on which the staves are moved along the saws. H represents the clips by which the carriage is mounted on the track; I, the dogs for holding the staves; J, the feed-strap, and K the rolls for pulling the belt; L, a cord, and M a weight, for pulling the carriage back; and N is a stop, such as will be used in connection with both dogs, for automatically detaching the stave for removing it when the carriage goes back. The feed-strap J and the cord L are attached to the dogs in such manner that by their tension they cause the dogs to hold the work securely, pressing it down on studs on the carriage. The track F and the axial bar D are mounted on the vertically-adjustable frame O, while the cranked rods are on the permanent frame P, so that the saws swing toward and from each other as the frame is raised or lowered, and are thereby adjusted for wide and narrow staves. The frame is supported on the levers Q, which connect with the oscillating crank-shaft R, for working in unison, and the adjusting hand-lever S is connected to the one on the operator's side of the machine, so that he can conveniently shift the saws to the staves to be dressed. The spring-pawl T and the rack U hold the frame in any position to which it may be adjusted. The inner feed-roll K is mounted on a slide, V, which has a spring to keep the roll pressed up to the other, for pinching the feed-strap so as to work the carriage, and the slide is also connected to the foot-lever W by arm X, rod Y, bell-crank Z, and rod L′, so that the operator can release the strap readily when he wishes the carriage to come back. *a* represents the driving-shaft, which is arranged under the saws and the carriage-way, and over it is a counter-shaft, *b*, both being inclined laterally to the longitudinal axis of the machine, but in opposite directions, so that the belt passes under the pulley on the counter-shaft after passing over one saw-arbor, thence over the other arbor, and back to the driving-pulley, in such manner that one belt and one drum serve to operate both saws. *d* represents the boxes for receiving the edgings from the saw, one of which is to be arranged outside of each saw on pivots *e*, so as to be readily overturned at any time to throw off the edgings. They will, in practice, be connected by rods and levers or other means, so that they can be operated simultaneously.

For adapting the machine to prepare staves for barrels of different sizes, the standards by which the saw-frames are supported on the axis-bar and the cranks E may be made extensible, to lengthen and shorten the radius of the saws and axis bar.

By this machine staves can be rapidly jointed with bevels and bilges perfectly proportioned to their different widths, which, I believe, has not up to this time been accomplished in any other machine.

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

1. The feeding-strap J, adjustable and stationary feed-pulleys K K, and the foot-lever W and its connections, with the movable pulley, combined and arranged substantially as specified.

2. The feed-strap and the reversing-cord, connected to the dogs I in such manner that their tension holds the dogs in the staves, substantially as specified.

3. In combination with two adjustable inclined saws, the sliding carriage, automatically-acting dogs, and the inflexible vertically-curved rail, having its radius of curvature all on one side, as shown and described.

BENJAMIN BARKER.

Witnesses:

HENRY S. PIERCE,

LEMUEL A. STANDISH.