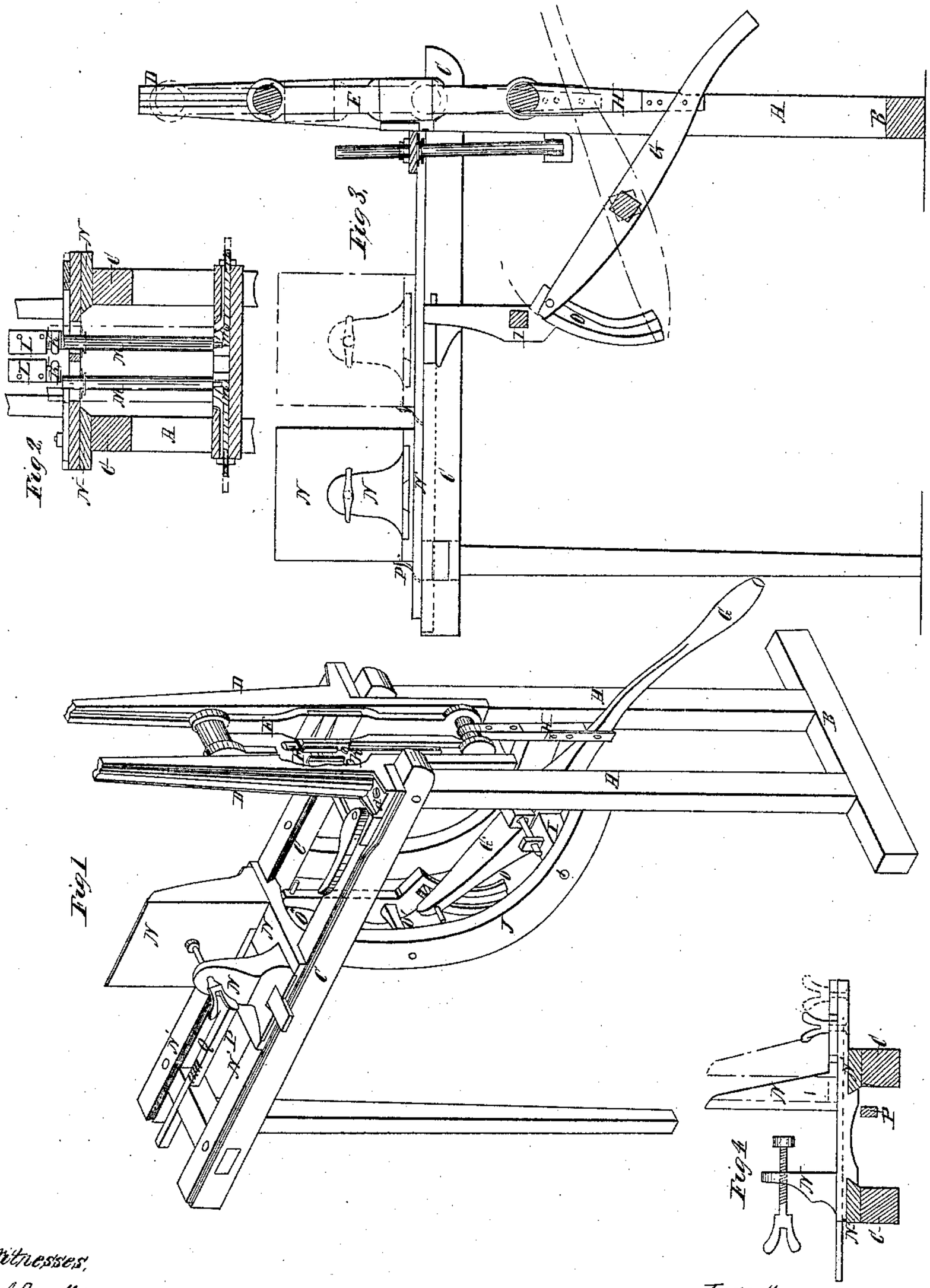
W. Pruett,

Tenoning Machine.

No. 56,445. Patented July 17, 1866.



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UNITED STATES PATENT OFFICE.

WILLIAM PRUETT, OF KOKOMO, INDIANA.

IMPROVEMENT IN TENON-MACHINES.

Specification forming part of Letters Patent No. **56,445,** dated July 17, 1866.

To all whom it may concern:

Be it known that I, WILLIAM PRUETT, of the town of Kokomo, in the county of Howard and State of Indiana, have invented new and useful Improvements in Tenoning-Machines; and I do hereby declare that the following is a full and complete description of the construction and operation of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a perspective view, and Figs. 2, 3, and 4 are sectional views.

Like letters refer to like parts in the several views.

A A represent two posts, which constitute a part of the frame of the machine. They are framed into a foot-piece, B, and to the upper ends are framed the horizontal beams or timbers C, which form ways for the tail-block of the machine, hereinafter to be described.

At the intersection of the posts A and beams C, I attach two uprights, D D, by means of bolts *d*, which serve as ways for the cross-head E, which carries the cutters F.

The cross-head E is put in motion by means of a lever, G, and connecting-rod H, the lever G having its fulcrum in the beam I, which is supported by journals I′ in the curved braces J. The end of this lever (shown at G′) serves a purpose which will be hereinafter explained.

The cutting-instrument consists of two sets of blades, one set on each side of the tenon, and are shown at K L.

K represents a straight spur, projecting at right angles to the direction of the ways C, and cuts the shoulder of the tenon. L represents a cutter, having its cutting-edge parallel to the side of the tenon, and by which the side is cut. Both these cutters are adjustable.

M represents guide-rollers, which stand in a vertical position and support the piece to be tenoned during the operation. These rollers are adjustable in a horizontal direction by means of bearings *m*, by means of which the tenon is adjusted to the cutters.

N represents a tail-block, which serves the double purpose of keeping the piece to be tenoned in an upright position, and also to feed the piece to the cutters.

The tail-block N has a movement toward and from the cutters L K upon ways N′, which are supported upon the beams C. The tail-block N is fed up toward the cutters with regularity at every upward movement of the cross-head E by means of the short arm G′ of the lever G acting upon the cam-lever O. This cam-lever O has its fulcrum in the shaft O′, which has its bearings in the curved braces J. The upper end of this lever O″ is connected to a rod, P, which passes backward between the ways N′ and beneath the tail-block N.

The rod P is provided upon the upper side with small notches or teeth, as shown at Q, into one of which the end of a small spring-catch, P′, (shown imperfectly in Fig. 3,) falls as the rod P is caused to traverse back and forth beneath the tail-block, and by thus engaging in the teeth successively, at each stroke of the lever G the tail-block is moved toward the cutter, as hereinbefore stated.

Both the face-plate and the binding-screw of the tail-block are adjustable, so that various-sized timber can be introduced and adjusted to suit the thickness of the shoulder of the tenon.

By raising the spring-catch P′ out of the teeth Q the tail-block can be shoved back to its place of starting.

The operation of this machine is as follows: The stuff to be tenoned is first dressed to its proper size and form and the tenons laid out. The piece is then adjusted in the tail-block to correspond with the position of the cutters. The guide-rollers are then properly adjusted, and then by working the lever G the cutters are operated and the piece fed up by the movement of the tail-block.

Having thus fully described my invention, what I claim, and seek to secure by Letters Patent, is—

1. The hereinabove-described device for feeding the tail-block toward the cutters with the upward motion of the cross-head by means of the lever G, cam-lever O, rod P, teeth Q, and pawl P′, attached to the tail-block N, the several parts being constructed and the

whole arranged for use substantially as set forth.

2. In combination with the knives L and K, so arranged as to cut the shoulders and sides of the tenon at the same time, a device for giving a forward feed to the tail-block, actuated by the same lever that communicates motion to the knives, substantially in the manner set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WILLIAM PRUETT.

Witnesses:
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