E. Lyman,

Mortising Machine,

No. 3,602, Patented May 25, 1844.

Fig. 4.

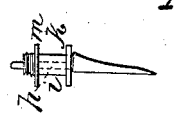


Fig. 3.

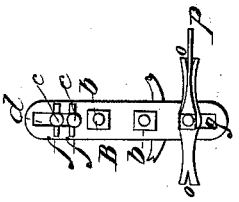


Fig. 2.

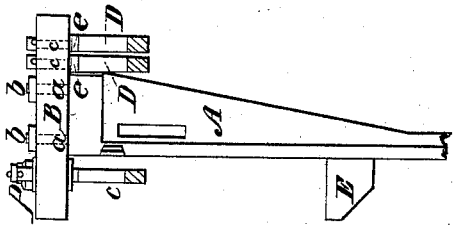
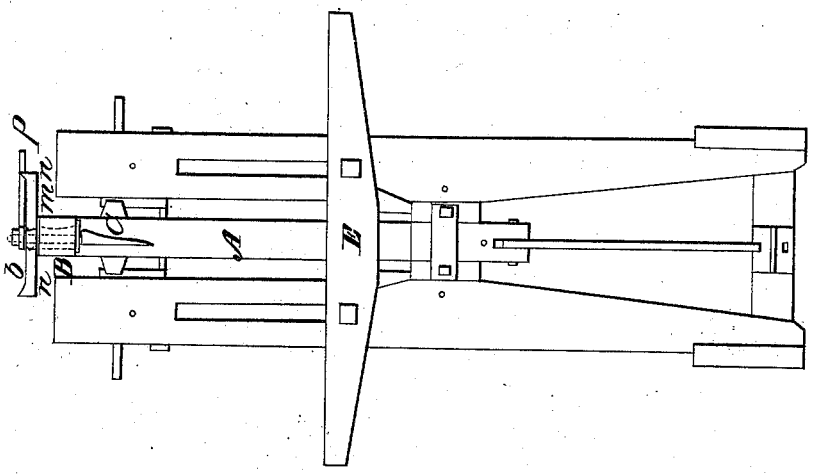


Fig. 1.



UNITED STATES PATENT OFFICE.

ELBRIDGE LYMAN, OF NORTHFIELD, MASSACHUSETTS.

TENONING AND MORTISING MACHINE.

Specification of Letters Patent No. 3,602, dated May 25, 1844.

To all whom it may concern:

Be it known that I, ELBRIDGE LYMAN, of Northfield, in the county of Franklin and State of Massachusetts, have invented a certain new and useful Improvement in Machinery for Mortising and Tenoning, and that the following description and accompanying drawing taken together constitute a full and exact specification of the construction and operation of the same.

Figure 1 of the drawings above mentioned represents a front view of the upper part of the machine. Fig. 2 is a side view of the movable and reversible cutter holder and upper part of the depresser to which it is attached. Fig. 3 is a top view of the said holder.

A (Figs. 1 and 2) is the depresser to which the mortising chisel is usually attached, and which is operated by the foot applied upon a tradle connected to it, as in other machines for mortising.

B is what I term the movable and reversible head, which carries the mortising chisel C and the two chisels D, D, by which a tenon may be formed.

E is the shelf or support piece, which sustains the piece of wood to be operated on.

The movable head B is confined to the top of the depresser A by screws (as denoted by dotted lines at *a*, *a*, Fig. 2), projecting vertically from the top of the depresser and passing through holes formed through the head, and having nuts *b*, *b*, which, when placed upon them and turned down, confine the head B to the depresser. On removing the nuts the head may be readily reversed so as to bring the tenoning chisels in front of the depresser A and over the shelf E. The two tenoning chisels D, D, have their shanks *c*, *c*, (Figs. 2 and 3) passed through an elongated slot *d*, Fig. 3, formed vertically through the head B, and the said chisels are confined in the said slot by means of shoulders at *e*, *e*, (which abut against the underside of the head) and wedge pins *f*, *f*, passed through the upper parts of their shanks; or they may be confined therein by any other proper method. By arranging them in a vertical slot their proper distance asunder may be regulated at pleasure.

The chisel C has its shank, or part or socket, through which the shank passes, arranged within a similar elongated slot *g* formed vertically through the head B as seen in Fig. 3; the object of the same being to allow the chisel to be set nearer to or farther from the front face of the depresser A, in order to bring it into the right position upon the piece of wood to be mortised. The shank of the chisel is cylindrical and passes through a corresponding cylindrical hole bored through a socket *i* (represented in Fig. 4 as detached from the head B), which has a head *k* upon its lower end, and is passed upward through and moves in the slot *g*. A nut *l* is screwed upon the top of the screw and upon a washer *m* and thus confines the chisel at any desirable distance from the front of the depresser. The arms of the nut have their ends turned upward and a notch formed in each as seen at *o*, Fig. 3. A spring lever *p* fixed upon the top of the shank of the chisel serves to turn the chisel around one hundred and eighty degrees or to reverse its edge. On placing the spring lever in one of the notches *o* it confines the chisel in the position required.

All the remaining parts of the machinery are similar to those in use in this description of mortising machines.

Having thus concluded my description I shall claim—

Arranging the two sets of chisels (tenoning and mortising) upon one movable and reversible head B (as represented in Fig. 2) instead of disposing them upon separate heads in the usual manner.

In testimony that the above is a correct specification, I have hereto set my signature.

ELBRIDGE LYMAN.

Witnesses:

CALEB EDDY,

R. H. EDDY.