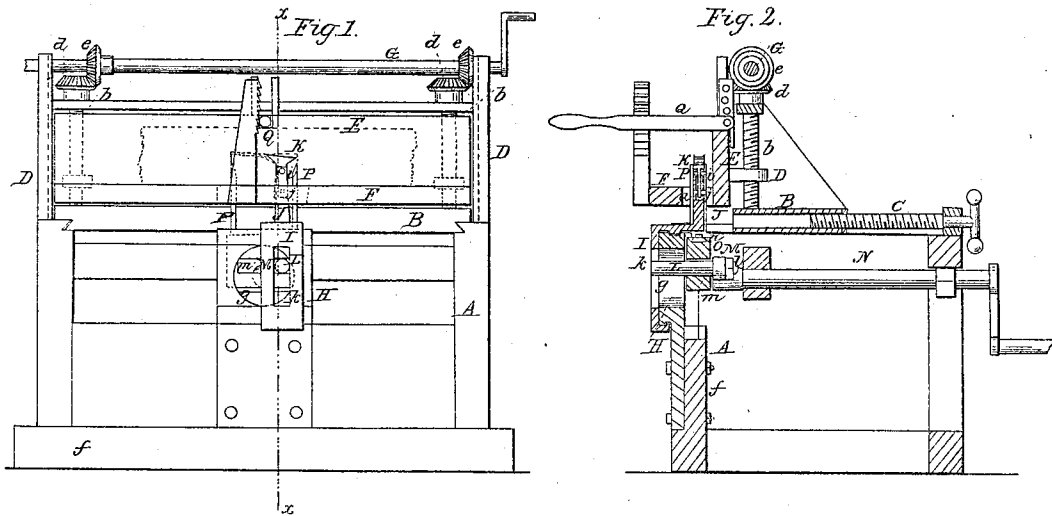


*J. A. Merriman,  
Mortising Machine.*

*N<sup>o</sup> 14,106.*

*Patented Jan. 15, 1856.*



# UNITED STATES PATENT OFFICE.

J. A. MERRIMAN, OF HINSDALE, MASSACHUSETTS.

## MORTISING-MACHINE.

Specification of Letters Patent No. 14,106, dated January 15, 1856.

To all whom it may concern:

Be it known that I, J. A. MERRIMAN, of Hinsdale, in the county of Berkshire and State of Massachusetts, have invented a new and Improved Mortising-Machine; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1, is a front elevation of my improvement. Fig. 2, is a transverse vertical section of my improvement, (x), (x), Fig. 1 shows the plane of section.

Similar letters of reference indicate corresponding parts in the two figures.

The nature of my invention consists in the peculiar means employed for operating a reciprocating cutter and two chisels as will be presently shown and described, whereby mortises may be cut of varying sizes, and in a perfect and expeditious manner.

To enable those skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

A, represents a rectangular frame, having on its upper part a carriage B, which works on proper guides on the frame and is operated or adjusted thereon by a screw C. At each end of the carriage B, there is attached an upright D, each of which has a vertical groove cut in its inner side. In these grooves the ends of a slide E, are fitted and to the lower end of the slide a horizontal bed F, is attached having an oblong recess (a), cut through its center.

The slide E, and bed F, may be adjusted or moved up and down by means of screws (b), which pass through nuts (c), attached to the slide E. The upper ends of the screws (b), have bevel wheels (d), upon them, which wheels gear into corresponding wheels (e), on a horizontal shaft G, which works in suitable bearings on the upper ends of the uprights D, D.

To the lower cross piece (f), on the front side of the frame A, there is firmly secured a rectangular metallic plate H, which has a circular opening (g), made through its center. This plate projects above the cross piece (f), and has two horizontal guides or ways, one at its upper, and the other at its lower end, on which guides a plate I, is fitted and works. To the upper end of the plate I, there is attached an upright bar J, which has a cutter K, attached by a pivot

(i), to its upper end. This cutter is in a horizontal position each end having a cutting edge. The shank of this cutter at its lower end has an oblong or elliptical hole made through it through which a pin (j), passes to serve as a stop, and still allow the cutter to work or be inclined to a certain extent either to the right or left, the shank working on the pivot (i), see Fig. 2.

The plate I, has an oblong vertical slot (k), made through it, in which a pin L, works, said pin being secured by a nut (l), within a slotted wrist M, at the end of a shaft N.

O, is a plate which is fitted on vertical ways or guides on the inner side of the plate H. This plate has a horizontal oblong slot (m), made through it, through which slot the pin L, also passes. To the upper end of the plate O, there are attached two chisels P, P, one at each end. These chisels are fitted in a groove in the upper end of the plate O, and secured therein by set screws (n), so that the chisels may be adjusted at different distances apart.

Operation: The stuff to be mortised is placed upon the bed F, and secured thereon by a clamp Q, arranged in any proper way. The stuff is brought properly over the chisels P, P, and cutter K, by adjusting the carriage B, by means of the screw C. By turning the shaft N, the pin L, will give a horizontal reciprocating motion to the plate I, and a vertical reciprocating motion to the plate O. The chisels P, P, enter the stuff and cut the ends of the mortise while the cutter K, takes out the wood between, said cutter working horizontally with a reciprocating motion its cutting end being slightly elevated so as to act upon the wood. The chisels P, rise and fall at the proper time so as not to interfere with the action of the cutter K. The stuff is fed to the chisels and cutter by turning the shaft G.

The above machine may be operated by hand or other power. The mortises will cut clean and with but a small expenditure of power, and by adjusting the chisels P, P, the required distance apart, and adjusting the pin L, to the wrist M, the requisite distance from the end of the shaft N, mortises of different sizes may be cut.

I do not claim cutting mortises by means of two chisels P, P, and a horizontal reciprocating cutter K, irrespective of the peculiar means employed for operating said

chisels and cutter for they have been previously used, but,

What I do claim as new and desire to secure by Letters Patent, is,

5 Operating the chisels P, P, and cutter K, by means of the reciprocating plates I, O, attached to a plate H, and provided with slots (*k*), (*m*), as shown in which a pin at-

tached to the wrist M, of a shaft N, works substantially as shown for the purpose specified. 10

J. A. MERRIMAN.

Witnesses

A. F. DAVIS,  
CHAS. J. KETTREDGE.