# E. HAMMOND.

## Mortising-Machines.

No. 138,649. Patented May 6, 1873.

*Fig. 1.*

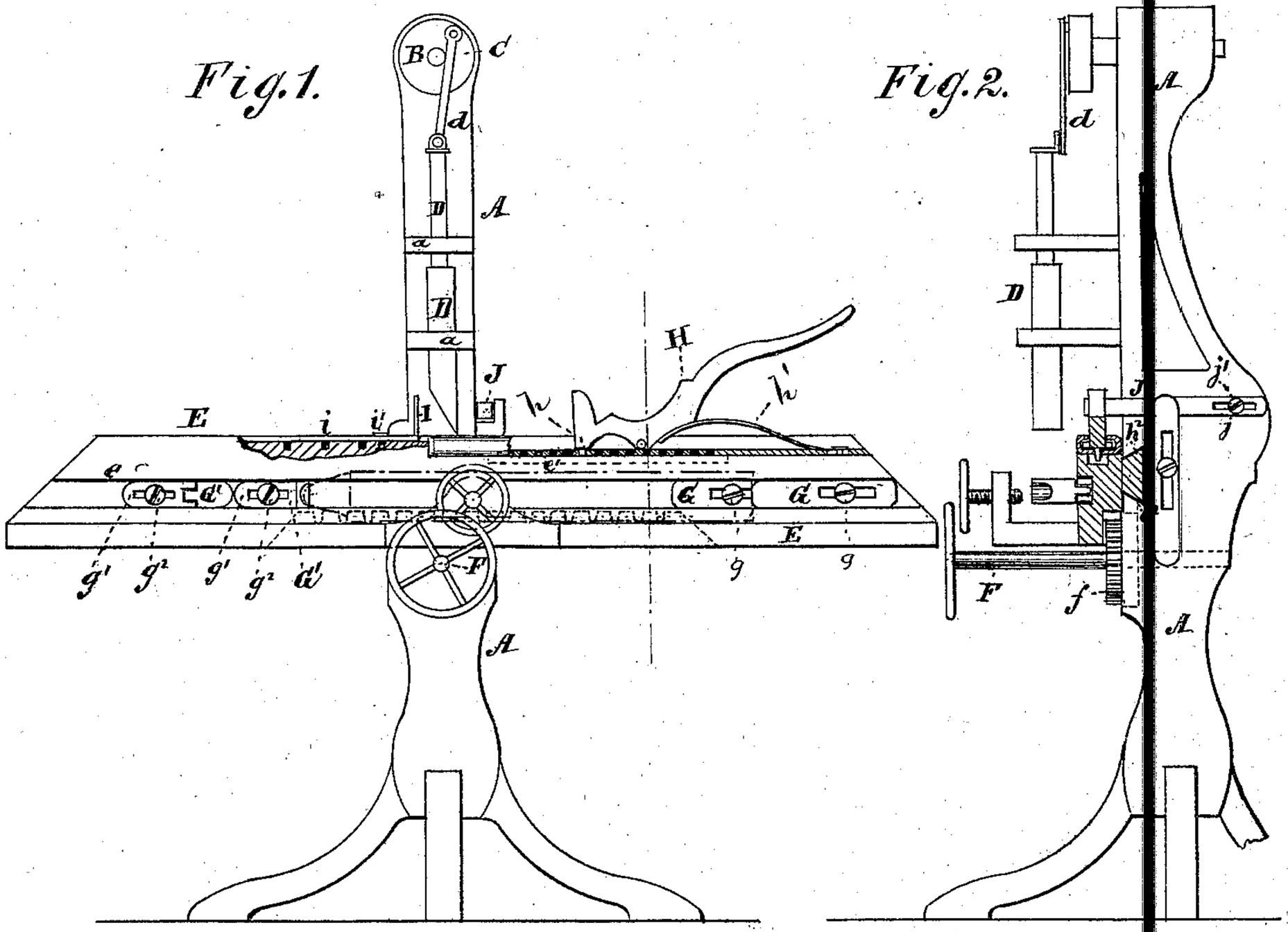
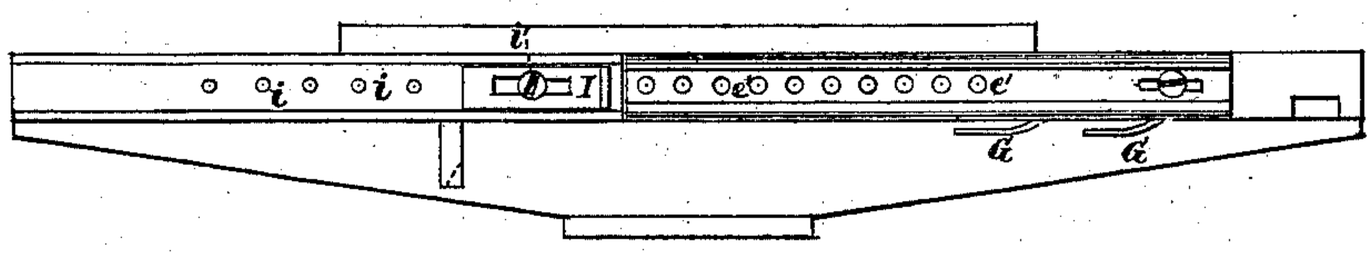



*Fig. 2.*




*Fig. 3.*

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# UNITED STATES PATENT OFFICE.

EUGENE HAMMOND, OF CUMBERLAND, MARYLAND.

## IMPROVEMENT IN MORTISING-MACHINES.

Specification forming part of Letters Patent No. **138,649**, dated May 6, 1873; application filed February 14, 1873.

*To all whom it may concern:*

Be it known that I, EUGENE HAMMOND, of Cumberland, in the county of Alleghany and State of Maryland, have invented a new and useful Improvement in Mortising-Machines; and I do hereby declare the following to be a full and exact description of the same, reference being had to the accompanying drawing forming a part of this specification, in which—

Figure 1 is a front elevation. Fig. 2 is a vertical cross-section. Fig. 3 is a top view of the slide.

The invention consists in the improvement of mortising-machines, as hereinafter described and pointed out in the claims.

In the drawing, A represents the upright frame of a mortising-machine, in which is rotated the crank-shaft B, having thereon the crank-wheel C, connected with the swiveled mortising-chisel D by a strap, *d*. *a a* are the guides through which the chisel travels in its upward and downward movements. E is a carriage having an upright piece, through which passes a clamp-screw to hold the work in its place; also having the usual rack, which is moved by a pinion, *f*, on the shaft F, to feed the stuff to the chisel or to enable it to be adjusted into the exact position required.

These matters being old and well known to the public, I do not desire to make any claim upon them.

In the back-board of the carriage E is a long recess or groove, *e*, in which are placed the spring spacing-gages G G, which are slotted and provided with a set-screw, *g*, to enable them to be brought further forward or backward. The relative distance of these gages from each other regulates the distance between the mortises.

One mortise being made while the end of the post abuts against the right-hand gage G, the latter is pushed into the recess *e* and the post slides along until its end strikes the second gage, G, when another mortise is made, and so for any number, the gages, of course, corresponding to the number of mortises desired.

If it is desired to mortise posts of any kind that have round, tapered, or beveled ends, then I use the hinged gages G′ G′, which are pivoted to the slotted side-beveled pieces $g^1$ $g^1$, the latter being themselves adjustable on the set-screws $g^2$. These gages being adjusted with the requisite intervals between them, the left-hand one is thrown up to receive the beveled end of post, which is made to abut against it. As soon as one mortise is cut the post is moved forward until it passes the right-hand gage, which is then raised and receives the post, which is moved back against it; or the reverse may take place, the post being brought first against the right-hand gage, and after the mortise is finished moved back a little to allow this gage to be closed down into the recess *e*, when the post is again moved forward to the other gage.

H is a traveling-dog that has the pawl or pin *h* fastening in the holes *e* of carriage, and the rear subjacent spring *h*′ that holds the pawl locked in said holes. $h^2$ is a dovetailed tongue on the under side of dog, which slides in the corresponding ways of the frame A.

By this device I propose to cut different-sized mortises in the same stuff without taking it out of or stopping the machine, thus obviating the necessity of handling the stuff twice, and consequent loss of time.

I is an adjustable gage, which is slotted in its shank *i*, and provided with a set-screw, *i*′, that screws into the upper edge of the back-board, while J is a stopper, which may be adjusted forward or back or vertically by means of the slot *j* and screw *j*′.

By combining the dog H and gage I with the carriage and the stop-bar J with the upright frame of a mortising-machine I can regulate the length of mortises with great facility and accuracy.

The gage I is brought against one side of the stop-bar J, when the chisel commences to operate, and the carriage carries it therefrom and brings up thereto the dog H, which has been previously set at the required distance from gage. As soon as the desired length has been excised the dog H strikes the stop-bar J and the feed stops.

The chisel is reciprocated to do the cutting and rotated to reverse or change its relative position in the usual manner.

Having thus described my invention, what I

claim as new, and desire to secure by Letters Patent, is—

1. The combination, with a mortising-chisel and side-recessed post-carriage, of the gages G G or G′ G′, the traveling-dog H, gage I, and stop-bar J, applied as and for the purpose described.

2. The spring-pressed dog H *h* sliding in the perforated way *e′*, the gage I, and the stop-bar J, combined with the carriage of a mortising-machine, as herein shown, and for the purpose specified.

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