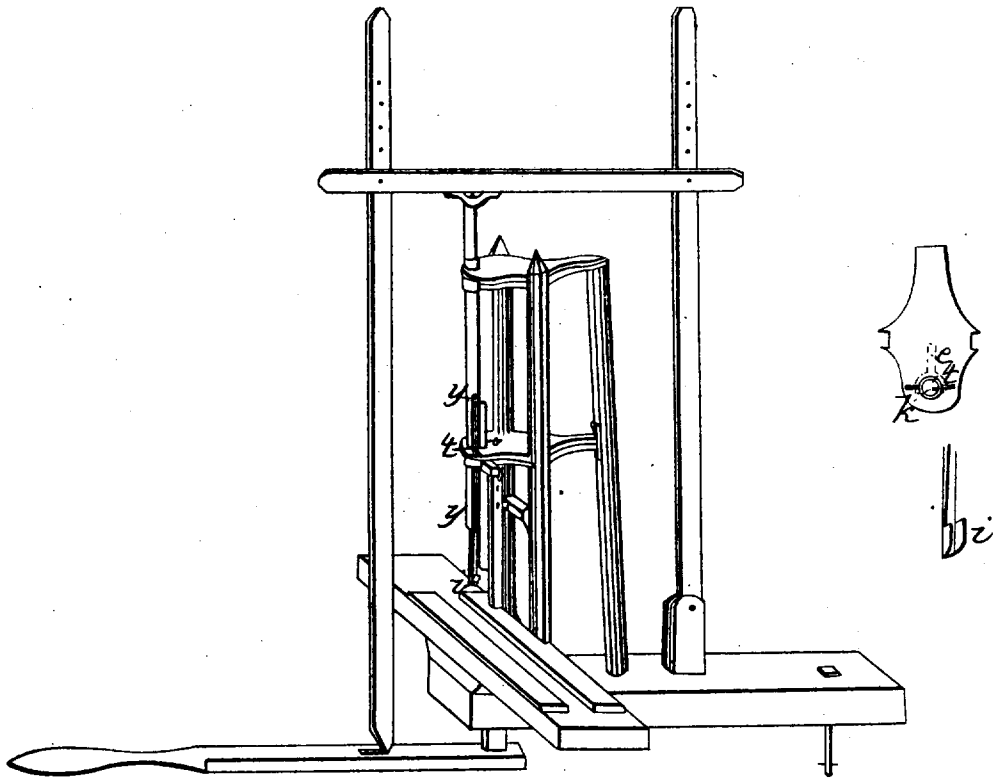
8530X

J. H. Chandler,

Mortising Machine.

Patented Dec. 17, 1834.



A.M. PHOTO-LITHO. CO. N.Y. (OSBORNE'S PROCESS)

Dec 17 1834

John H. Chandler. Worcester Massachusetts.

The Schedule referred to in these Letters Patent and Making part of the same containing a description in the words of the said John Hazelt Chandler himself of his Improvement in the construction of machines for Mortising.

To all People to whom these presents shall come.

Be it known that I John Hazelt Chandler of Worcester in the County of Worcester and Commonwealth of Massachusetts Mechanic have invented a new and useful improvement in the construction of Machines for Mortising. and that the following is a full and exact description of the same as invented or improved by me.

The Machines heretofore used for making mortises. have been attended with these difficulties. The piston or shaft holding the Chisle has been so imperfectly supported or guided. that it was liable to be removed from its right position. thereby making the mortise irregular or out of square. and in order to remedy this evil. the piston has been so closely confined that the operation of the machine has been greatly embarrassed by too great friction. Another inconvenience has also arisen from the use of common Chisels. which have the chips in the mortise. and much time is required in removing them. all these inconveniences are removed by constructing the machine after the manner proposed by me and which is as follows:

The frame of the machine may be constructed of wood or iron. or any suitable material. My machine is partly of iron and partly of wood. a plank of convenient dimensions composes the foundation of the frame. near the front end of the plank are mortised three posts of wood. the feet of the two front ones. are let down into the plank. but

the third one stands back between them, and is mortised into it. The posts are firmly connected by rails, and plates or castings. These castings are of a triangular form, and connect the posts at the angles. One of these rests near the top, and the other is placed about one third of the distance from the top downwards towards the bottom. The front end of these triangular pieces of iron are extended projecting out in front of the two front posts, a hole is made through each of them at the end, in the centre, as near the end as will answer. Through these holes passes the piston which holds the chisel in a socket at the lower end. The piston is moveable up and down through the holes made in the castings mentioned above. On one side of the piston, and half the length of it, is cut a groove. Over the upper side of the lower plate or casting, and directly back of the piston, is a spring, the back end of which is made fast to the casting, the other end is made forked, the legs of the fork passing each side of the piston. Lastly beneath the forks of this spring, is an iron ring passing round the piston, and on the inside of it, is a tooth, or projecting piece of iron fitted to move in the groove on the piston. This ring has two stems or handles attached to it, for the purpose of turning the piston. The ends of the handles as they pass round under the spring, are made to fall into a notch on the right hand side of the casting. A little below the lower casting is framed into the post a mortice rail for the purpose of mounting a socket below this, close down on the plank is another rail, as well in holding the posts together, and confining them to it. The front of the feet of the two front posts, is firmly confined a plank resting upon, and attached to the foundation of the frame or machine, confined by means of a bolt. Upon this are fixed two steel parallels, to each other, and movable at pleasure, with slots and screws to confine them. On the back side is erected a standard standing upright, the screw passing through the mortice

said mentioned about and confined to it. passing through the foundation. cross peice and slide. on the right hand side. and accommodated with a screw to confine it at pleasure. i. an iron holder with a head. on the front side of it. Back of the third post. are firmly set two short standards. with a space between them. in this space is fastened by a pin. the lower end of a shaft. which extends up somewhat higher than the posts. in the centre and directly underneath the cross peice. is firmly set a tenon. attached to this at the end in a mortice. by a pin. l. a lever with a handle turned on the end of it. Near the end of this lever towards the machine. is fastened by a hinge. another shaft of the same size and height of the other. From the top of these shafts downwards. are inserted at short distance apart five holes. attached to the upper end of this shafts. is another lever. by means of mortices and pins at the end. On the under side of this lever. and at a short distance from the front end. is placed a hinge. to which is attached the upper end of the piston. This lever is movable up and down on the pin holes. the chisel is accommodated with two lips which. in addition to making the sides of the mortice smooth. does by forcing the chips between them. bring them out of the mortice. The machine may be operated upon a common workbench it being confined to it by means of a bolt—

Explanation of the Drawing

A. Rack or foundation of the Machine. B. cross peice. dd. two front posts. S. Post back of the two front ones. K. triangular piece of iron. for connecting the posts. and guiding the piston. m. m. another similar piece for the same purpose. e. end of the forked spring. t. round ring with a stem or handle for turning the piston. O. piston holding the chisel. ff. groove in the piston. g. holder to prevent the piece. while mortising. from rising. p. Standard mounted at the top by the screw P. cc. chisel inserted into the lower end of the piston and slides between which the piece to be mortised. is placed. m

Standard mounted into the foundation of the machine, W. upright shaft moveable on a pin at X. L. upper lever moveable on a pin at each end, h. front end of shaft G. W. lever connected by a pin to the lower v. with the plate K A. 2 bolt or screw to confine the machine to the bench i. handle of the lever

Operation of the Machine

The operator takes the piece to be mortised in his left hand, and lays it on the cast pieces on the left hand side of the piston between the two slides near to it with his right hand takes hold of the lever W. at the handle i. and by raising it. the shaft G. being connected to it by a hinge and the upper lever L. to the shaft h. by a pin, and the piston being connected to the lever L. also raised also. He then moves the piece under the chisel where the mortice is to be made. He then adjusts the slides and standard. by confining them with the screws in such a position, as will bring the chisel exactly between the gauge strokes of the mortice. He then brings his hand against the standard to feed the chisel, and then bears down upon the lever at i. and the chisel is made to cut down the depth required, and by means of the lips or lateral edges of the chisel the chips are brought out of the Mortice. This operation is repeated until the mortice is extended to the desired point in one direction, when the operator turns the piston half round, and with it the chisel, to present the chisel in a proper manner for the other end of the Mortice. this operation is performed by taking hold of the stem t. in the ring at which keeps round the piston, and carrying it round upon the cast pieces where it falls into a notch in the triangular casting K. and is confined in its proper position by the lip of the forked Spring c. The piston is moved round by the stem or handle t. by means of the tooth attached to the inside of the ring, and lying in the groove d. of the piston. All I claim as my invention or improvement, is the groove in the piston, with the forked Spring and ring with tooth and

handle for turning it, with the application also of a chisel
to the lateral edges.

In testimony that the above is a true specification of my said improvement, I have hereunto set my hand this twenty ninth day of August one thousand eight hundred and thirty four.

Witnesses
Chas. G. Baldwin
W. Farnsworth
Chs. Whitlock

John H. G. Chandler.

(1729 Newly) Drawing

Patented December 17th to 1834.

Recd. 1836.