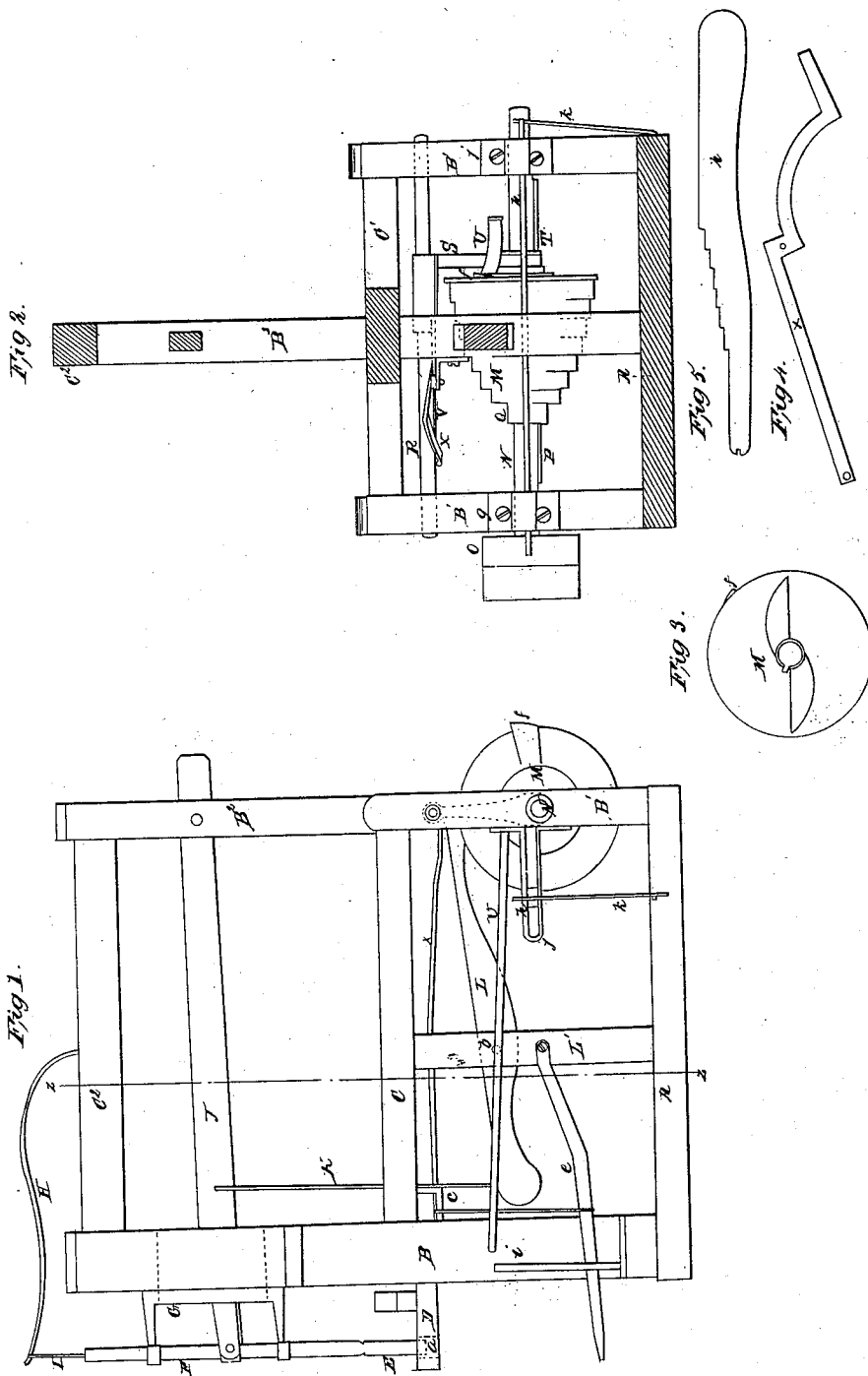


J. E. BROWN & S. S. BARTLETT.
MORTISING MACHINE.

No. 10,464.

Patented Jan. 24, 1854.



UNITED STATES PATENT OFFICE.

JOHN E. BROWN AND STEPHEN S. BARTLETT, OF WOONSOCKET, RHODE ISLAND.

MORTISING-MACHINE.

Specification of Letters Patent No. 10,464, dated January 24, 1854.

To all whom it may concern:

Be it known that we, JOHN E. BROWN and STEPHEN S. BARTLETT, both of Woonsocket, in the county of Providence and State of Rhode Island, have invented certain new and useful Improvements in Mortising-Machines; and we do hereby declare that the same are described and represented in the following specification and drawings.

10 To enable others skilled in the art to make and use our improvements we will proceed to describe their construction and operation, referring to the drawings, in which the same letters indicate like parts in each
15 of the figures.

Figure 1 is an elevation of one side of the machine. Fig. 2 is a section of that part of the machine at the right of the line $z z$, Fig. 1. Fig. 3 is a graduated
20 conical cam.

In these drawings A is the base; B B', parts fastened to said base and connected together by the bars C C', as represented. The bar C' has the post B² fastened to it, which is connected to the post B by the top bar C². The bed D upon which the stuff or timber is laid to be mortised is fastened to the post B and has a mortise a through it for the end of the chisel E to
30 work into when it is forced through the timber upon the bed D. The chisel E is connected to the traverse rod F which traverses in the puppet heads of the stand G, fastened to the post B and is drawn up
35 by the spring H, to which it is connected by the link I, and is forced down by the lever J connected to said rod F, as represented, which lever J vibrates in a slot in the post B, and stand G, the back end of the lever
40 being allowed to work freely in the post B². The lever J is drawn down by the stirrup K, which connects it to the lever L, which lever L works in a mortise in the post L' vibrating upon the pin b , which passes
45 through the post and lever. The back end of the lever L is raised by the graduated conical cam M, which cam is constructed in the form represented, an end view being shown in Fig. 3. This cam is fitted to
50 traverse freely on the shaft N, which shaft is fitted to turn in the posts B' B' when it is operated by a band applied to the pulley O fastened to it as represented. The shaft N has the feather P fastened to it, and the
55 hole in the cam M has a score in it fitted to the feather P, so that when the shaft N is

turned it carries the cam M and operates the lever L unless the cam is so far to the right that the lever rests on the hub Q. The rod R is fastened into the posts B' and the
60 guide S is fitted to traverse upon it, which guide is made in the form represented and is fitted to a score in the hub T on the cam M, so as to traverse the cam, the guide being forced to the right by the spring U, and
65 drawn to the left by the cord V, which connects it to the angular lever X, which vibrates on a pin in a stand fastened to the post L', a cord being fastened to the opposite end of said lever X and taken through
70 the staple c and fastened to the lever e , which lever e vibrates on a screw in the post L', and may be depressed by the foot of the person using the machine, so that when he places the timber in a proper position on
75 the bed D he can depress the lever e and traverse the cam M under the lever L and operate the chisel E, moving it but a short distance the two first strokes, but as the projection f on the flange of the cam forces
80 back the notched lever h and allows the cam to slip or be drawn one notch farther to the left, so that the next step in the cam acts upon the lever L and forces the chisel E a little farther into the timber and as the
85 person using the machine continues to depress the lever e and the projection f moves the lever h at each revolution of the cam, the cam is drawn to the left one step at each revolution and the chisel E is forced proportionably farther into the timber, until
90 the highest part of the cam M is brought under the lever L, when the chisel is operated with a full length stroke as long as required, when the foot may be removed
95 from the lever e and the cam will be moved to the right by the spring U acting against the guide S so as to let the chisel stop until a new supply of timber is placed under it, when it may be made to operate again as
100 before. The lever e is held against the post B by the bracket i , and the lever h vibrates on a pin in the stand g , which stand is fastened to the post B', and the other end of the lever h traverses in the stand j and is
105 pressed against the flange of the cam M by the spring k , which is fastened to the brace A for that purpose. The angular lever X is shown in Fig. 4 and the lever h in Fig. 5.

Although we have described a cam with
110 two graduated conical wings, we contemplate that they may be made and used with one,

two, three or more wings, as may be desirable.

What we claim as our invention and desire to secure by Letters Patent is—

5 Operating the chisel by the graduated conical cam in combination with the mechanism described or its equivalent which enables the operator to vary the length of the stroke made by the chisel while it is in
10 operation, or suspend its motion at pleasure,

without disconnecting the driving power applied to operate the machine.

In testimony whereof we have hereunto signed our names before two witnesses.

JOHN E. BROWN.
STEPHEN S. BARTLETT.

Witnesses:

I. DENNIS, Jr.,
B. K. MORSELL.