

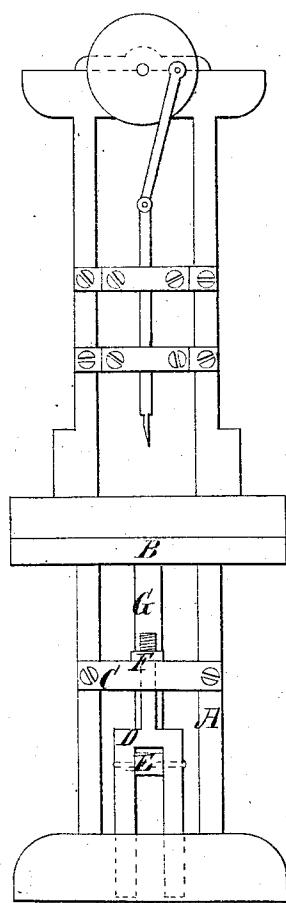
H.B. Smith,

*Mortising Machine,*

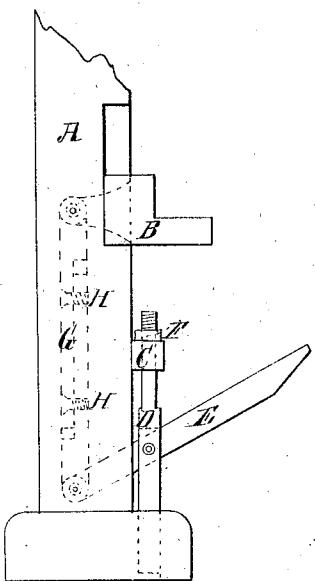
*N<sup>o</sup> 25,221,*

*Patented Aug. 23, 1859.*

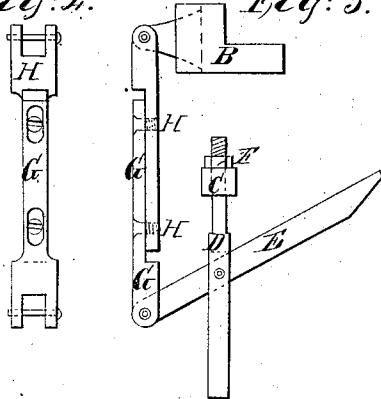
*Fig: 1.*



*Fig: 2.*



*Fig: 4.*



*Fig: 3.*

*Witnesses:*  
S. L. Ward  
C. W. Scott

*Inventor:*  
H. B. Smith

# UNITED STATES PATENT OFFICE.

H. B. SMITH, OF LOWELL, MASSACHUSETTS.

## MORTISING-MACHINE.

Specification of Letters Patent No. 25,221, dated August 23, 1859.

*To all whom it may concern:*

Be it known that I, HEZEKIAH B. SMITH, of Lowell, in the county of Middlesex and Commonwealth of Massachusetts, have invented certain new and useful Improvements in Power Mortising-Machines; and I do hereby declare that the following is a full and clear and exact description thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon.

The nature of my invention consists in the arrangement of the adjustable fulcrum, lever, table, and extension rod, substantially as described with each other, when they are combined with power mortising machines, for the purpose of giving in all cases only the necessary movement of the foot, and so that the foot may always when operating the machine, be as near the floor as possible, when wide or narrow pieces are to be mortised, and for adjusting the table to the desired position in relation to the chisel for mortising the various widths of pieces; and capable of adjustment while the chisel is in operation, all as will be hereafter seen.

Figure 1. represents a front elevation of a mortising machine with my improvements attached. The parts that are common to other machines I shall not describe except as they are necessary to show the connection of my improvements thereto. Fig. 2. is a side view of the machine. Fig. 3. is a side view of the lever, fulcrum, connecting link, and table. Fig. 4. is a back view of the connecting link.

Similar letters of reference in each of the several figures indicate like parts.

40 A represents the frame.

B is the table.

C is a cross bar on the front of the frame for supporting the adjustable fulcrum.

D is the fulcrum represented in the shape of a fork, the upper part terminates in a screw with a nut, which part passing through a hole in the cross bar C is sup-

ported there by the nut F. The two rods forming the lower part of the fulcrum are supported in guides or holes made in the 50 frame. The lever E is hung between these two rods on a pin passing through them all. The end of the lever E is connected to the table by means of a connecting rod which is made in two parts. 55

The part G has slots made in it, through which the bolts pass and screw into the part H, thus fastening them together. The slots allow the parts to be distended or brought together as may be desired—thus bringing 60 the treadle nearer to, or farther from the table, so as to suit the various thicknesses of stuff to be mortised without requiring too great a motion of the foot.

It is a great and desirable object to keep the 65 foot as near the floor as possible while operating this class of machines, to not fatigue the workmen, and the adjustable fulcrum allows this to be easily effected; besides this fulcrum D, in connection with the lever E, extension rod G, and table B, allow the table, at any moment to be moved and adjusted to any desired height, with the chisel and then be used without the least necessity of stopping its movement, or the movement of the 75 machine. By this means more work can be accomplished in a given time, than by any other device known to me, besides this invention is very simple, and cheaply constructed, and not liable to get out of order. 80

What I claim as my invention and desire to secure by Letters-Patent, is—

The relative arrangement of the fulcrum D, lever E, connecting rod G and table B, with each other in the manner described, 85 when combined with power mortising machines, for the purposes set forth.

In witness whereof I have hereunto set my signature this eighth day of October, A. D. 1857.

H. B. SMITH.

In presence of —

S. L. WARD,  
E. W. SCOTT.