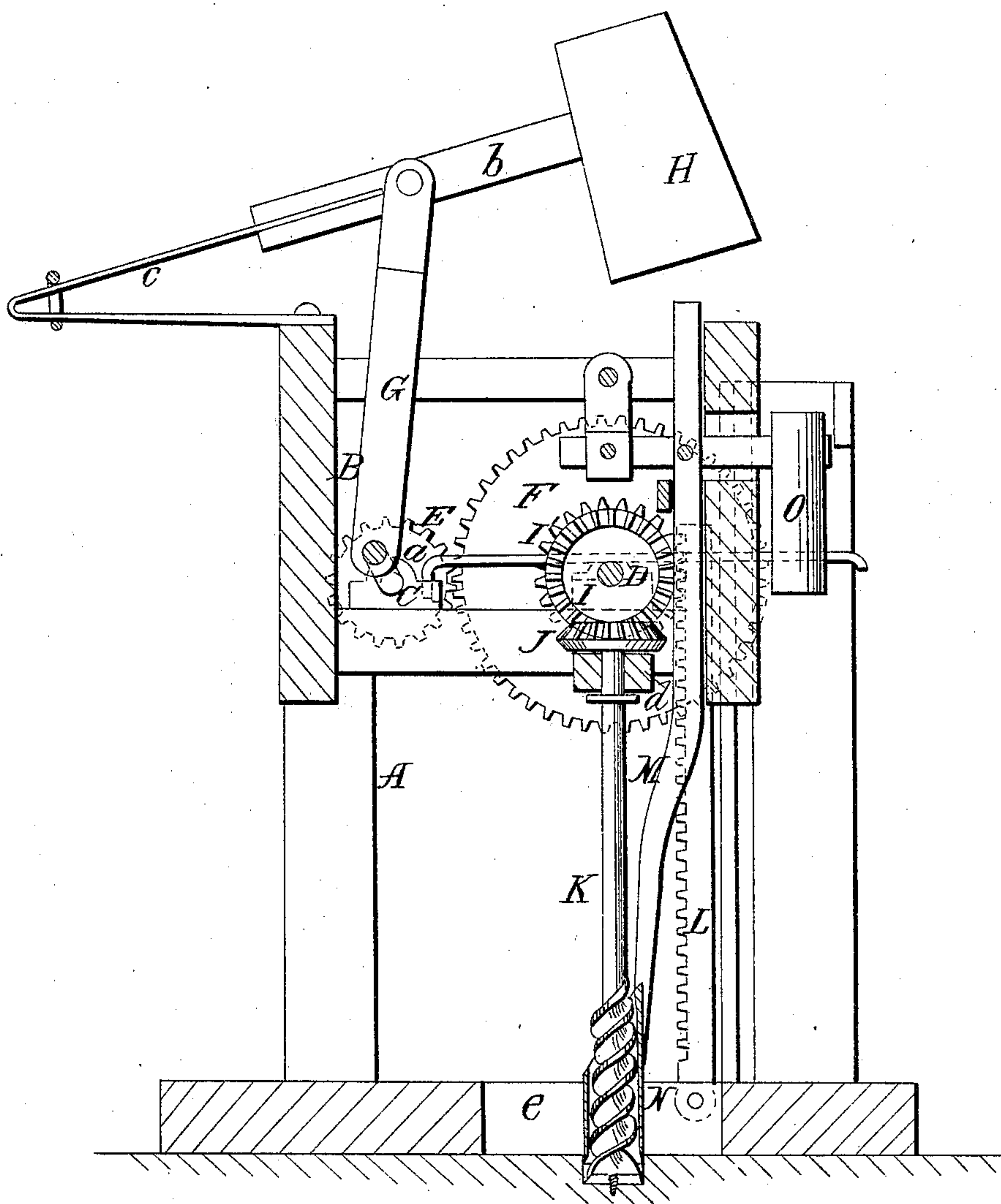


G. H. Stevens,
Mortising Machine.
N^o 16,101. Patented Nov. 18, 1856.



UNITED STATES PATENT OFFICE.

G. H. STEVENS, OF LOWELL, WISCONSIN.

BORING AND MORTISING MACHINE.

Specification of Letters Patent No. 16,101, dated November 18, 1856.

To all whom it may concern:

Be it known that I, G. H. STEVENS, of Lowell, in the county of Dodge and State of Wisconsin, 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 drawing, making a part of this specification, said drawing being a vertical section of my improvement.

My invention consists in the employment or use of an auger or bit and hollow chisel arranged and operated in a peculiar way as will be hereinafter fully shown and described.

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, in which a sliding frame B is fitted. This frame is allowed to slide freely up and down within the frame A.

C, D, represent two shafts which are placed transversely in the frame B and connected at one end by toothed wheels E, F. The shaft C has a crank (a) at its center and a pitman G is attached to this crank, the upper end of the pitman being attached to the arm (b) of a hammer H, a spring (c) being attached to the arm (b) and frame B.

The shaft D has a bevel wheel I upon it, and the wheel I gears into a horizontal wheel J which is placed upon the upper end of a vertical auger or bit K, the bearing (d) of said auger or bit being on the frame B. To the lower part of the frame A a vertical rack L is attached. This rack gears into a wheel I' also placed on the shaft D.

M represents a shaft the upper end of which is attached to the frame B. The

lower end of this shaft has a hollow rectangular chisel N attached to it, the auger or bit K being within the chisel N. A rectangular opening (e) is made through the base of the frame A and a weight O is attached to the frame B.

The operation of the machine will be readily seen. As the shaft D is rotated, motion is communicated to the shaft C, and the hammer H is operated by the crank (a) and pitman G. The auger or bit K is rotated by the wheels I, J. The stuff to be mortised is placed underneath the frame A and the auger or bit bores the hole while the chisel N in consequence of being acted on by the hammer H is driven down and makes a rectangular mortise, the chisel squaring the round hole made by the auger or bit. The frame B is fed downward as the work progresses in consequence of the wheel I' gearing into the rack L.

The above machine is simple in construction and operates well. It may be constructed at a moderate cost and there are no parts liable to get out of repair.

I am aware that the hollow chisel and bit have been previously used, and I therefore do not claim those parts irrespective of the mode of arranging and operating the same; but

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

Attaching the auger or bit K, chisel N, and hammer H, to the sliding frame B, and operating the auger or bit, hammer and frame as herein shown and described for the purpose specified.

G. H. STEVENS.

Witnesses:

HARRIET PAGE,
E. B. BOWEN.