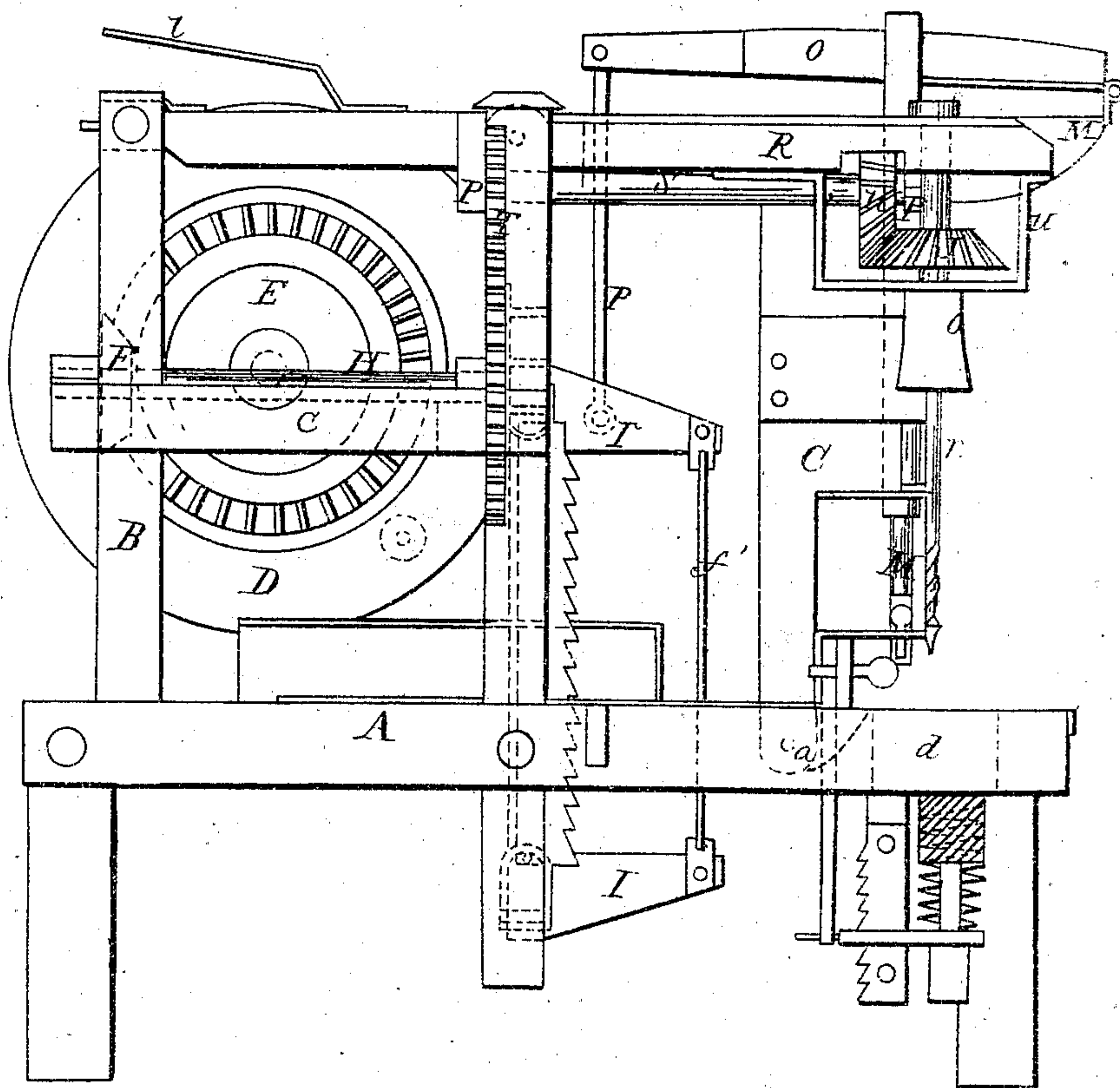


L. W. Wolfe.
Mortising-Machine.
Nº 74739 *Patented Feb. 18, 1868.*

Fig. 1.



Witnesses:
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V. D. Starkbridge

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Fig. 2.

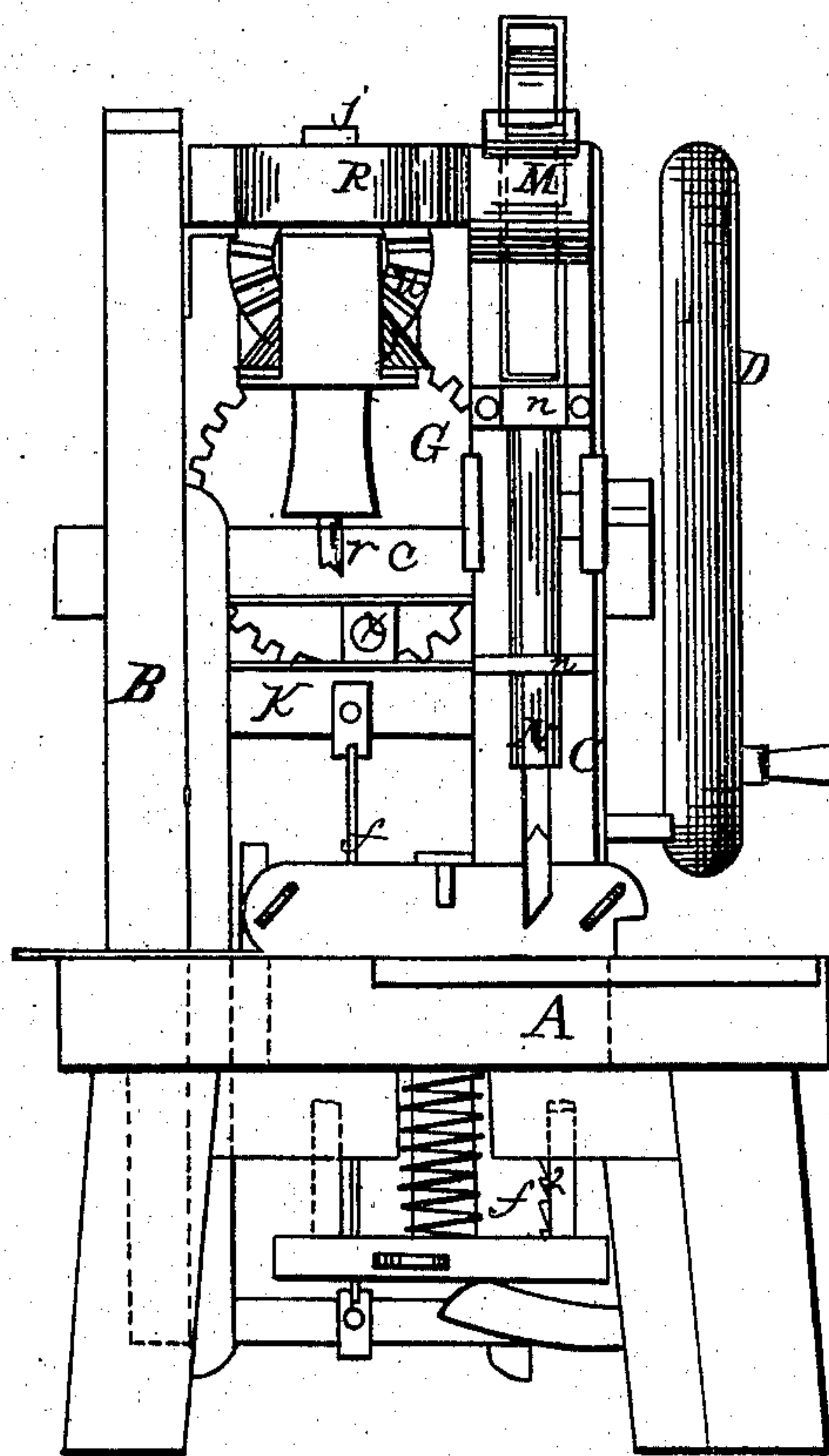
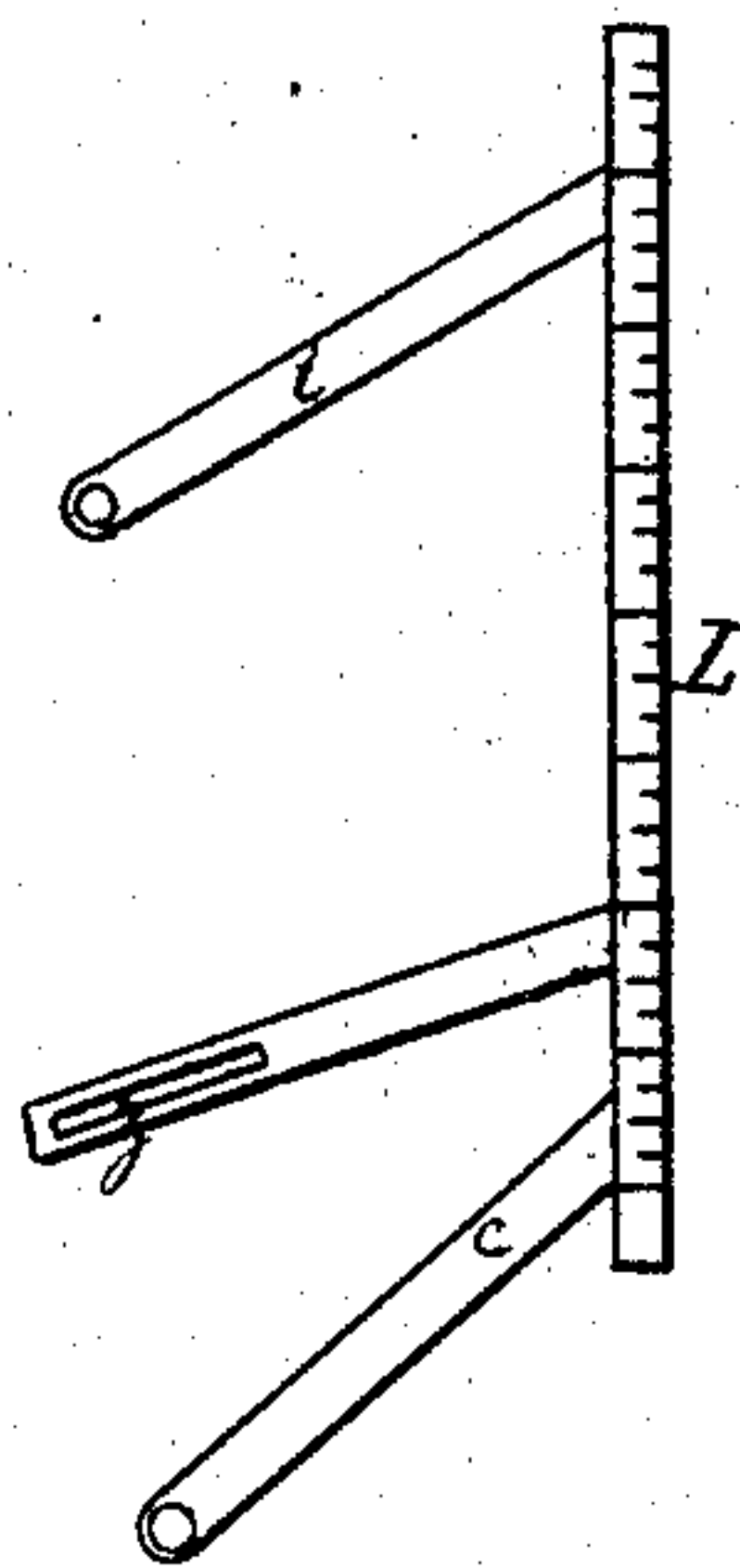


Fig. 3.



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United States Patent Office.

L. W. WOLFE, OF JACKSONVILLE, ILLINOIS.

Letters Patent No. 74,739, dated February 18, 1868.

IMPROVEMENT IN MORTISING-MACHINES.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, L. W. WOLFE, of Jacksonville, Morgan county, State of Illinois, have invented new and useful Improvements in Combined Saw, Boring, and Mortising-Machines; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and the letters of reference marked thereon.

In the annexed drawings, making a part of this specification, A represents a rectangular table, of suitable dimensions, and constructed in a substantial manner, having holes or slots through its top for the saws *ff'* to work through, and a mortise, *a*, for the tenon of the adjustable movable post C to rest in; also a hole or mortise, in which is adjusted a rectangular feed-block, *d*, said block being operated, or raised up and lowered, by means of the lever *e*, pivoted to one of the front legs of the table A, one end resting against the bottom of a frame secured to the under side of the block *d*, and a coiled or other spring, placed between the under side of the frame of the table A and the cross-bar of the frame attached to the block *d*.

Framed into the top of the table A are four vertical posts, B B, which support the transverse and longitudinal horizontal beams *c c*, which are screwed to or framed into said posts.

D represents a crank or driving-wheel, attached to one end of a shaft, which extends outside of and rests on the longitudinal beams *c*, said shaft having a bevelled cog-wheel, E, attached to it at the other end.

F represents a faced cog-wheel, attached near one end of the shaft H, resting on the transverse beams *c*, to correspond with and mesh into the cog-wheel E. The shaft H is also provided with another plain cog-wheel, G, at its other extremity, said wheel being, in turn, provided with a crank-pin, *x*.

K represents a saw-frame, constructed in the ordinary form for up-and-down saws, with an additional cross-bar parallel with and near the top of the frame K, forming a groove, in which the crank-pin *x* works, and also provided with arms, I, at right angles with the front of said frame, in which is adjusted a cross-cut saw, *f*, for the purpose of cutting tenons, shoulders, and other work, as may be required. In the frame K is adjusted a rip-saw, *f*, for the purpose of ripping up lumber to any desired width or thickness.

L, Figure 3, represents a scale, which is adjusted on the top of the table A, parallel with the side of the saw *f*, by means of metallic strips, *i i*, pivoted to its lower edge at one end, and to the table at the other end. A third strip, provided with a slot, *z*, is pivoted to the scale, as above, and has a screw through the slot *z* into the table, which allows the movement, laterally, of the scale L to whatever distance from the saw *f* it is desired, and is there secured by means of the screw in the slot *z*.

By attaching power of any kind to the crank or driving-wheels D, motion is given to the shaft and wheel E, and thence, by the meshing of the cog-wheel F with the wheel E, to the shaft H and cog-wheel G, and, by its crank-pin, to the saw-frame and the saws *ff'*.

C represents an adjustable or movable post, provided with a shoulder and tenon at its lower end, which fits in the mortise in the table A, and is fastened down by means of a pin inserted in a hole in the edge of the table, and passing through the tenon of the post C.

On the top of the post C is framed a movable beam, M, projecting over the said post toward the front, and provided with holes for the rod P and shank of the chisel N to pass through and work in.

In front of and in a groove in the post C is attached the movable chisel or cutter N, by means of the metallic bands *n n*. The chisel extends up through the hole in the beam M, and is there pivoted to a lever or arm, O, which is itself pivoted at one end to the top and front end of the beam M. At the other end of the lever O is pivoted a rod, P, which passes through a hole in the beam M, and thence to the arm I, and then pivoted, so that, when the saw-frame K operates or works up and down, the chisel N works simultaneously with it, by means of the arm I raising the rod P, and that the lever O, and that, in turn, the chisel N.

When the mortising-attachment is not to be used, by pulling out the stay-pin from the tenon of the post C, and detaching the rod P from the arm I, the whole mortising-attachment may be turned on the hinge at the top of post B, up out of the way, until wanted for use again.

R represents a movable beam, hinged to a cross-bar at the top of the two rear posts B B, provided with the shoulders *p p*, into which the ends of the shaft S are secured, said shaft having the cog-wheel T near one end,

which meshes with and takes motion from the cog-wheel E, and the faced or bevelled cog-wheel U, near the other end.

r represents a bit and shaft, adjusted vertically in and through the metallic plate *u* and beam R, provided with a head, *j*, at the top, to keep it from falling through and from the beam R, and also provided with a shoulder or collar, *o*, which rests against the plate *u*, and keeps the bit *r* from giving way or being pressed up when the lumber to be bored is pressed against the point of said bit by means of the lever *e* and block *d*.

The bit-shaft *r* has attached to it, at a suitable distance from the beam R, a faced cog-wheel, J, which meshes in and takes motion from the cog-wheel U.

When the boring-attachment of this machine is used alone, the crank-pin *a* may be removed from the wheel G, and thus less power will be required to propel the machine.

It is obvious that either the saws, mortiser, or boring-devices, or all of them, may be operated either separately or at the same time, and by the same power, whenever so required.

When the boring-machine is not required for use, it may be raised up out of the way by means of the hinge by which it is attached to the cross-bar, and there secured by means of an adjustable brace, *l*, which catches on a pin on the back side of the cross-bar at the top of the two rear posts B B.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The sliding saw-frame K, having arms I I, as specified, whereby motion is communicated to the mortiser N, through the connecting-rod P and lever O, all constructed and operating as specified.

L. W. WOLFE. [L. s.]

Witnesses:

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E. N. RAYNOR.