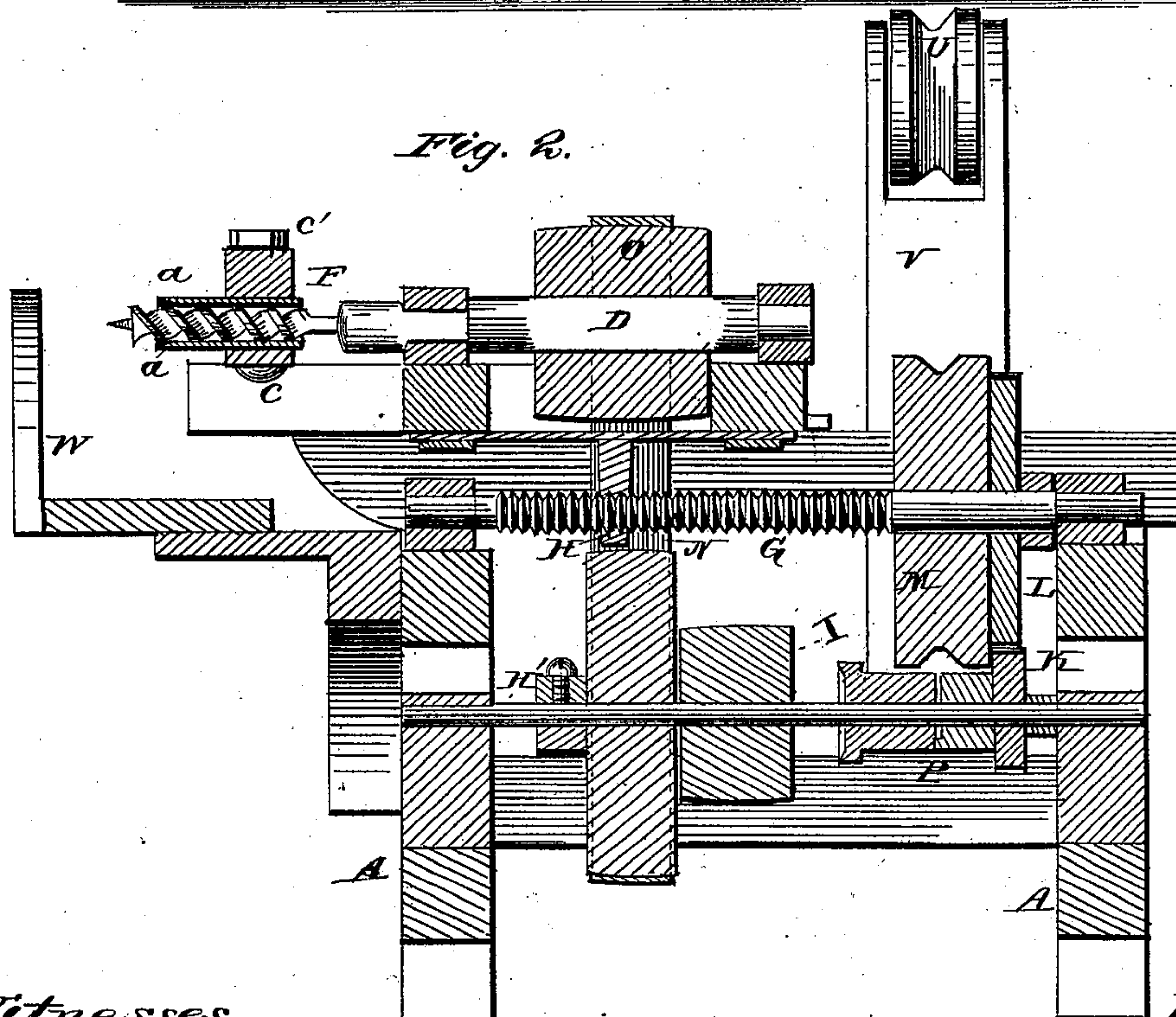
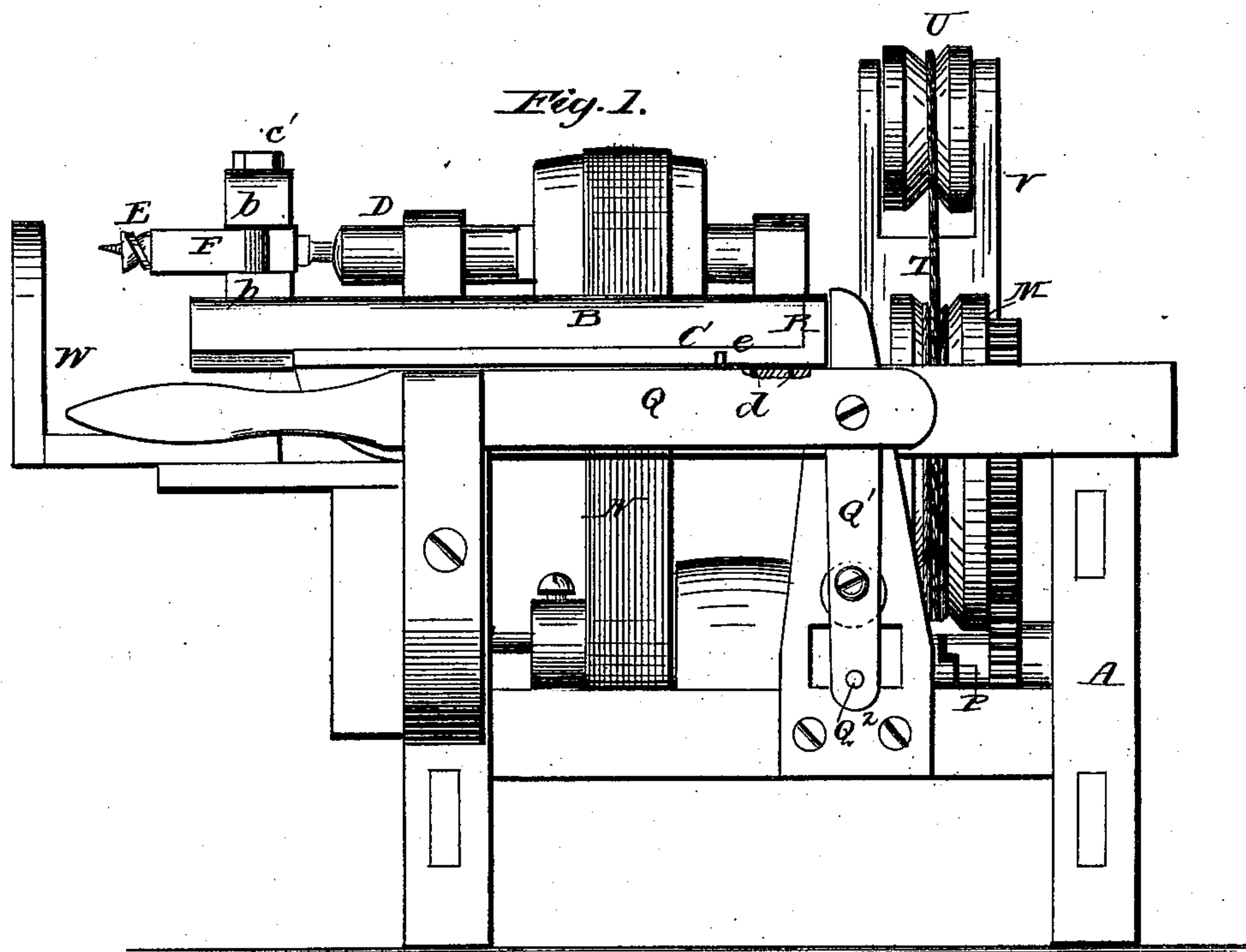


S. STONE.
Mortising-Machine.

No. 210,162.

Patented Nov. 19, 1878.



Witnesses

Ad. G. Dietrich
Reuben Perrin

Inventario

Samuel Stone,
per C. A. Snow & Co
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Fig. 3.

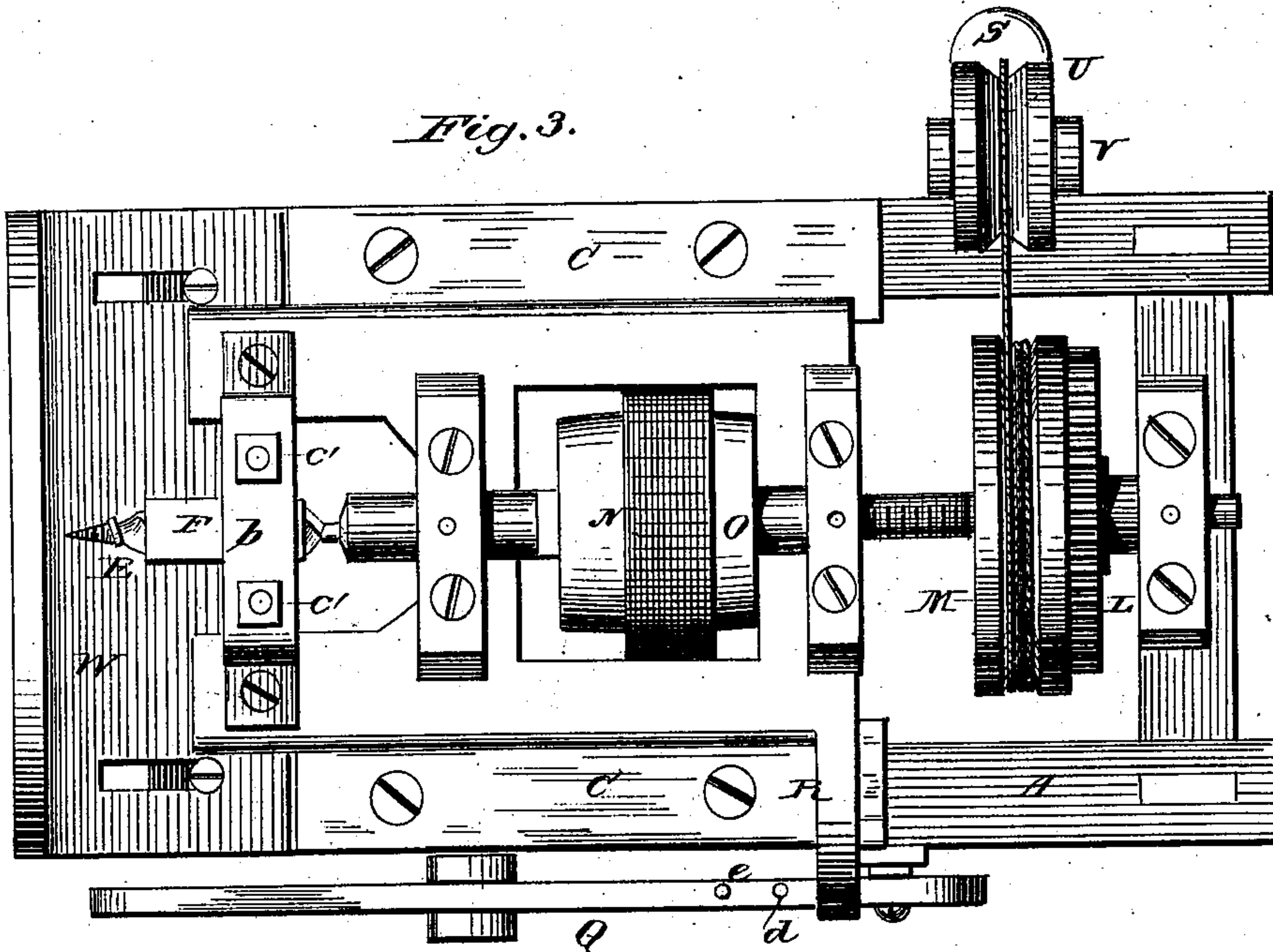


Fig. 4.

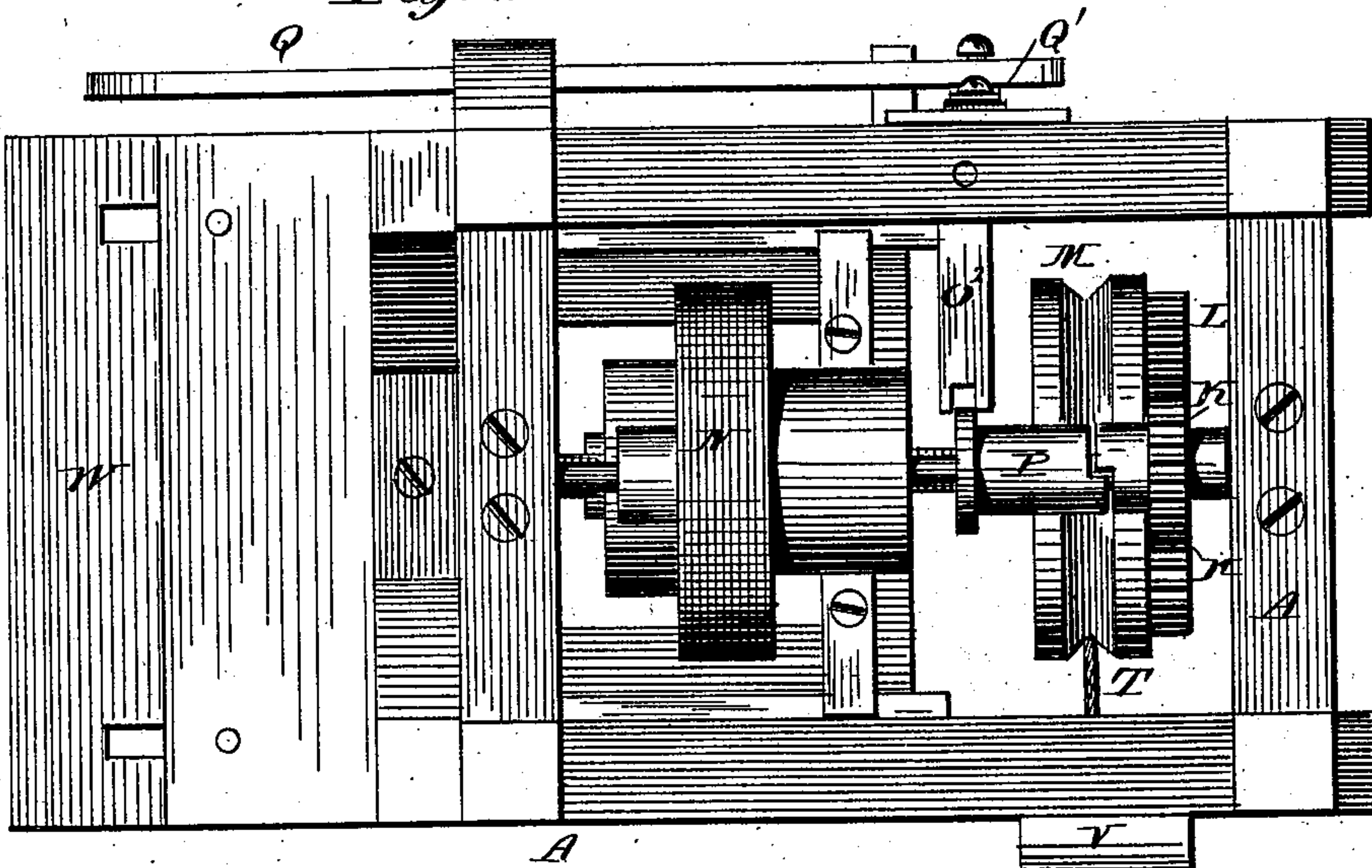
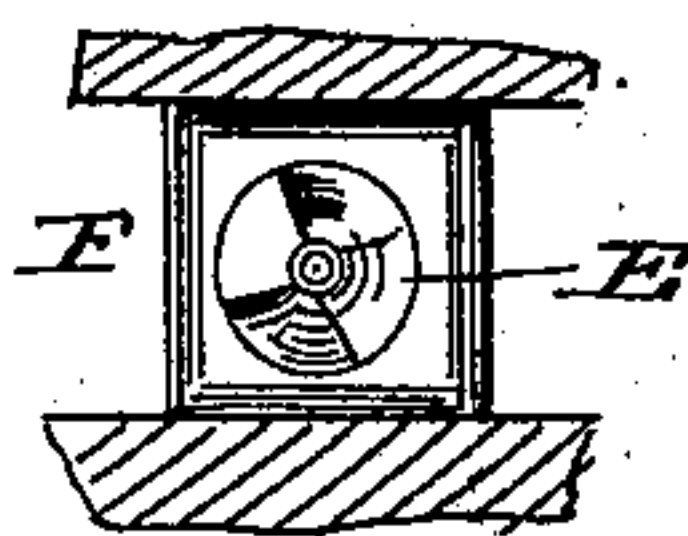


Fig. 5.



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UNITED STATES PATENT OFFICE.

SAMUEL STONE, OF BRISTOL, TENNESSEE.

IMPROVEMENT IN MORTISING-MACHINES.

Specification forming part of Letters Patent No. **210,162**, dated November 19, 1878; application filed September 23, 1878.

To all whom it may concern:

Be it known that I, SAMUEL STONE, of Bristol, in the county of Sullivan and State of Tennessee, have invented certain new and useful Improvements in Mortising-Machines; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

Figure 1 is a side elevation of a mortising-machine embodying my invention. Fig. 2 is a vertical longitudinal section taken through the driving-screw, auger-shaft, and chisel. Fig. 3 is a plan view, and Fig. 4 is a bottom view, of my improved machine.

This invention has relation to machines for cutting mortises; and it consists in the improvements in the construction of the same hereinafter fully described, and particularly pointed out in the claim.

In the accompanying drawings similar letters of reference indicate corresponding parts in the several figures.

Upon the main frame A is mounted an auxiliary reciprocating frame, B, moving on guides or ways C. To a rotating shaft, D, having bearings in the auxiliary frame B, is attached the auger E, which is incased by and rotates within an adjustable rectangular hollow chisel, F, having four cutting-edges, *a*. The hollow rectangular chisel F is clamped between bars *b b*, having bolts and adjusting-nuts *c c'*, and it may be shifted upon the auger E to the desired position. Beneath the auxiliary frame B, supported in bearings in the main frame A, and extending lengthwise thereof, is the driving-screw G, which passes through an arm, H, depending from the auxiliary frame B, and operates said frame B whenever said driving-screw G is actuated in either direction, causing the auxiliary frame B to have the required reciprocating motion. Beneath the driving-screw G is the driving-shaft H', parallel therewith, and having its bearings in the frame A. This driving-shaft H' is provided with a belt-wheel or pulley, I, to receive the power from

the engine, and to transmit it to the driving-screw G through a pinion, K, and a gear-wheel, L, connected with a pulley, M, and through the band N to the pulley O upon the auger-shaft D. A clutch, P, upon the driving-shaft H' is operated by a compound lever, Q Q' Q², the power end, Q, of which is fixed at the side of the main frame A, and is perforated in its upper edge, at *d*, to receive a pin, *e*, which limits the forward motion of the auxiliary frame B, and consequently regulates the depth of the mortise by reason of the fact that the rear cross-bar, R, of the auxiliary frame B strikes the pin *e* and carries the lever forward, causing the portions Q' Q² to operate to release the bite of the clutch P, and permit a weight, S, connected to the pulley M by a cord, T, passing over a pulley, U, in the top of the upright V, to reverse the movement of the driving-screw G, and move the auxiliary frame B back to its place. When the cross-bar R strikes the projecting end *f* of the part Q' of the lever it throws the clutch P again in gear to operate the auger and chisel. A platform, W, is secured to the front of the frame A to carry the timber to be mortised, and this platform is made both vertically and horizontally adjustable by means of slots and set-screws. The shavings from the auger pass through the hollow rectangular chisel, and fall from its rear end to the floor.

The advantages of this machine are apparent.

Having thus described my invention, what I claim as new and useful, and desire to secure by Letters Patent of the United States, is—

In a mortising-machine, the combination of the auxiliary frame B, carrying the auger and chisel E F, with the driving-screw G, driving-shaft H', and weight and clutch for operating it reciprocally, substantially as set forth.

In testimony that I claim the foregoing as my own I have hereunto affixed my signature in presence of two witnesses.

SAML. STONE.

Witnesses:

JACOB HARRIS,
G. A. CALFEE.