(No Model.)

2 Sheets—Sheet 1.

H. F. WYATT.

MORTISING MACHINE.

No. 447,269. Patented Feb. 24, 1891.

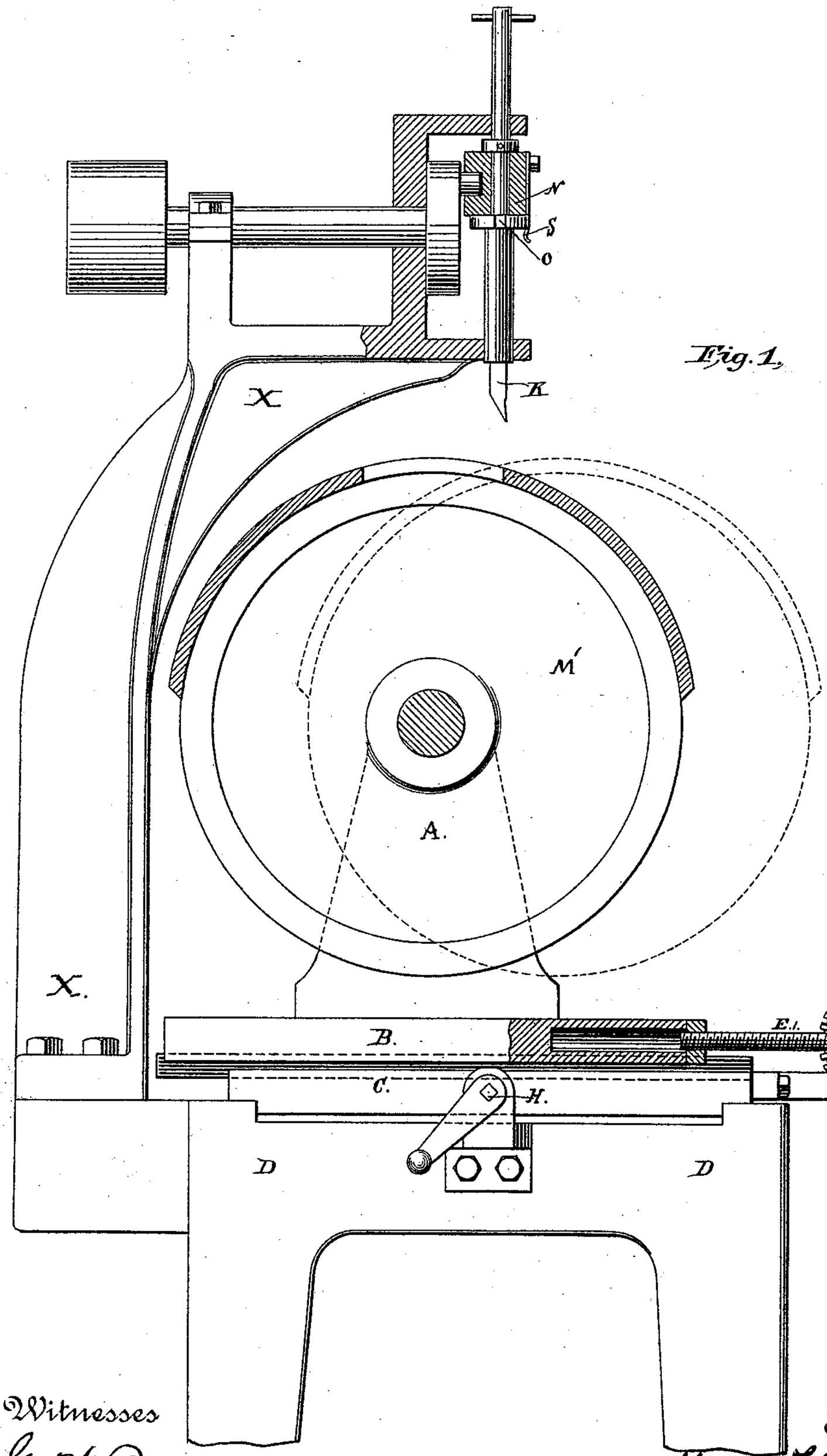

Fig. 1.

Witnesses
Geo. W. Breck.
Saml. F. Macpeak.

Inventor
Harry F. Wyatt
By his Attorney
Henry Melville

(No Model.) 2 Sheets—Sheet 2.

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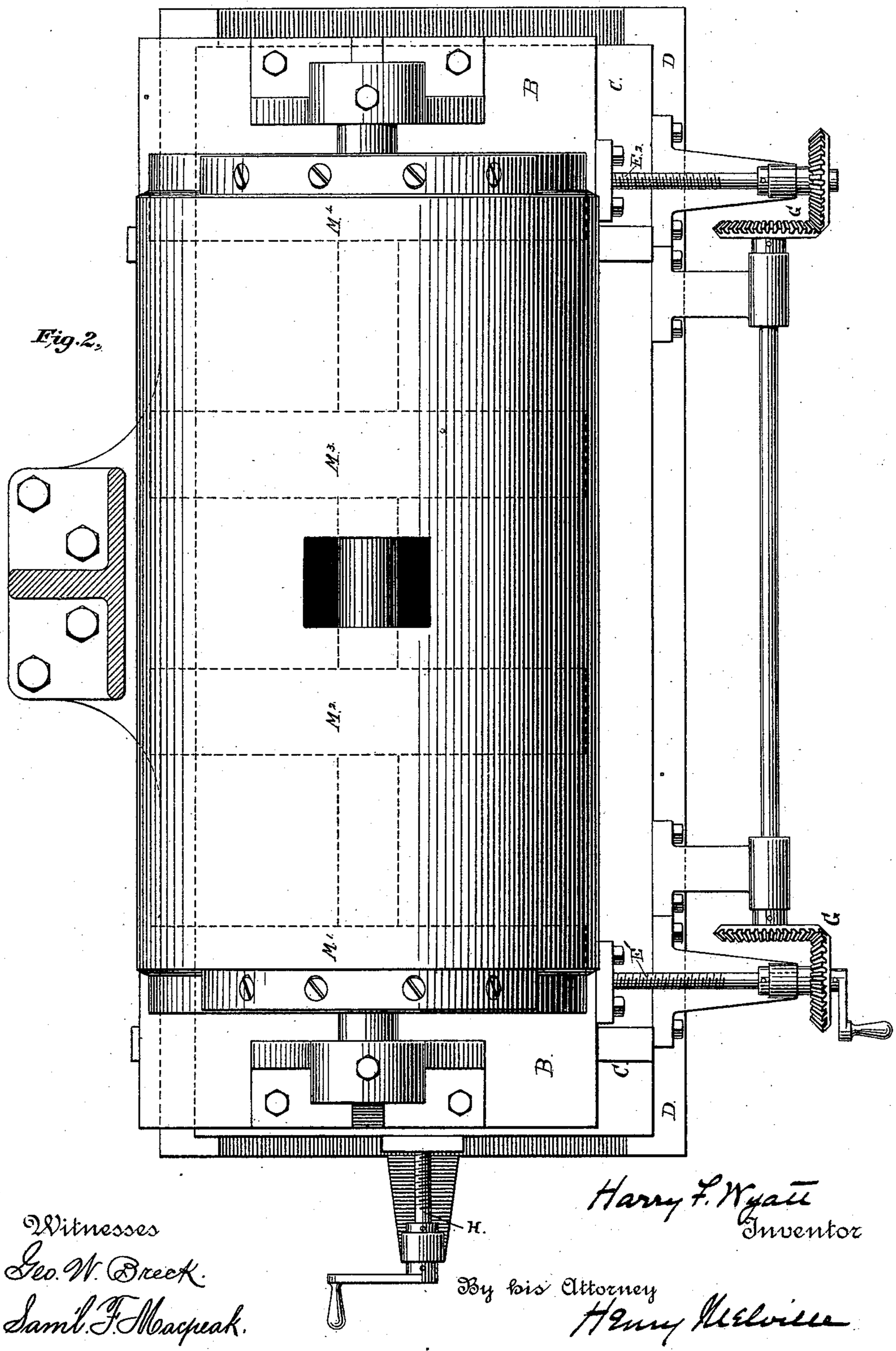
Fig. 2.



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UNITED STATES PATENT OFFICE.

HARRY F. WYATT, OF NEW YORK, N. Y.

MORTISING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 447,269, dated February 24, 1891.

Application filed June 26, 1890. Serial No. 356,889. (No model.)

To all whom it may concern:

Be it known that I, HARRY F. WYATT, a subject of the Queen of Great Britain and Ireland, residing in the city, county, and State of New York, have invented certain new and useful Improvements in Mortising-Machines, of which the following is a full, clear, and exact description, such as will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

The object of my invention is to provide means by which an opening can be readily cut in a flat, circular, or irregular surface of any size or shape desired, and by which the sides of the openings can be cut at any angle desired or truly parallel to each other. I attain this object by the mechanism illustrated by the accompanying drawings.

Figure 1 represents a side view partly in section. Fig. 2 is a top view of same, showing opening cut in a semicircular stereotype-plate.

Similar letters represent similar parts in the two figures.

A represents a support of such shape as most suitable, according to whether the object to be cut be round, square, octagonal, &c., provided with suitable clamps. It is attached to a movable carriage B, which rests and slides upon a second movable carriage C, which rests and slides on a fixed bed D. The carriage B is moved forward or backward upon the carriage C by the screws E′ E², operated by a suitable system of gearing G, and the carriage C is moved forward or backward in a different direction from that in which B moves by the screw at H, carrying with it the carriage B, on which is the support A. Only one screw is shown; but two or more may be used connected with a gearing similar to that shown, as G.

The carriages may be guided by elevations fitting into corresponding grooves or other suitable means.

Attached to the bed D is the bracket X, which supports the cutting-tool K, which is worked up and down with considerable rapidity by any suitable mechanism, and is adjustable in a box N, so as to allow its cutting-edge to be adjusted to the line of the intended cutting, being firmly held while operating by the spring S, fastened to the box N, catching in a grooved part of K, as shown at O.

The fixed support A is represented in the drawings as furnished with the movable and adjustable wheel-shaped portions M′ M² M³ M⁴, which together form the support. This makes it adapted for holding a curved object like a stereotype-plate, as M′ M² M³ M⁴ can be revolved or shifted so as to allow the cutting-tool K to cut in at any angle required. These movable and adjustable portions M′ M² M³ M⁴ may be any number or shape found most convenient for holding the object to be cut.

In operating the machine, if it is intended to cut a rectangular opening, the carriage B is moved alone by E E′, making a cut in the line of direction in which it moves, and then the carriages B and C are moved together by the screw H, making a cut at right angles to the first. If, however, at the same time the screw H is moving B and C together, screws E E′ move B the same distance, the second cut will be at an angle of forty-five degrees to the first, and the angle will vary according to the relative distances in which H and E E′, respectively, move the carriages on which they act.

Having described my invention, what I claim as new is the following:

In a cutting or mortising machine, the combination of the movable carriages B and C with the bed D, the holder A, the adjustable supports M′ M² M³ M⁴, the bracket X, and the adjustable cutting-tool K, substantially as described.

In witness whereof I have subscribed my name, in the city of New York, this 20th day of May, 1890.

HARRY F. WYATT.

In presence of—
PERCIVAL C. SMITH,
EDWARD P. LYON.