

(No Model.)

J. H. OSBORNE.
BUTTON HOLE CUTTER.

No. 277,602.

Patented May 15, 1883.

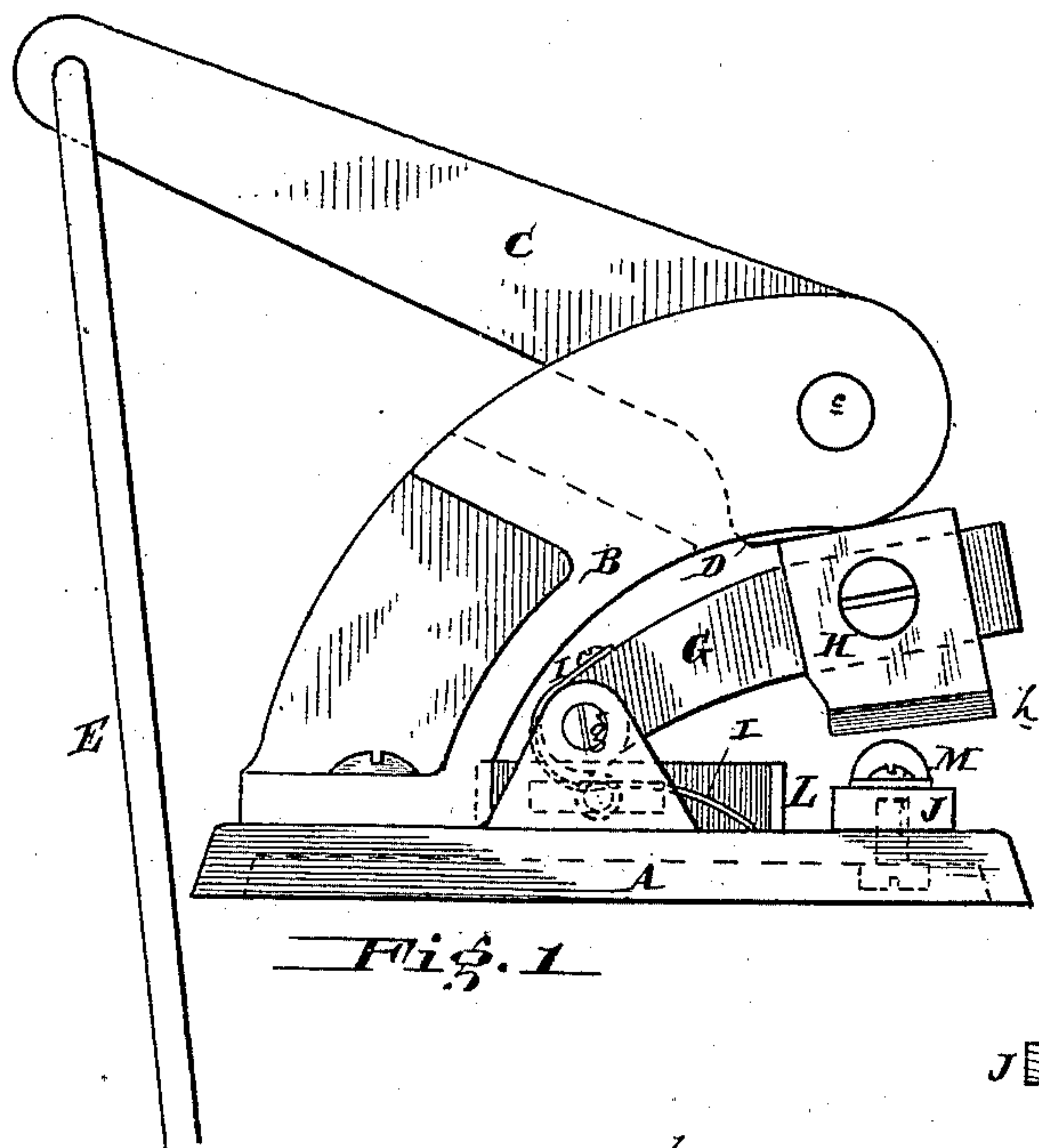


Fig. 1

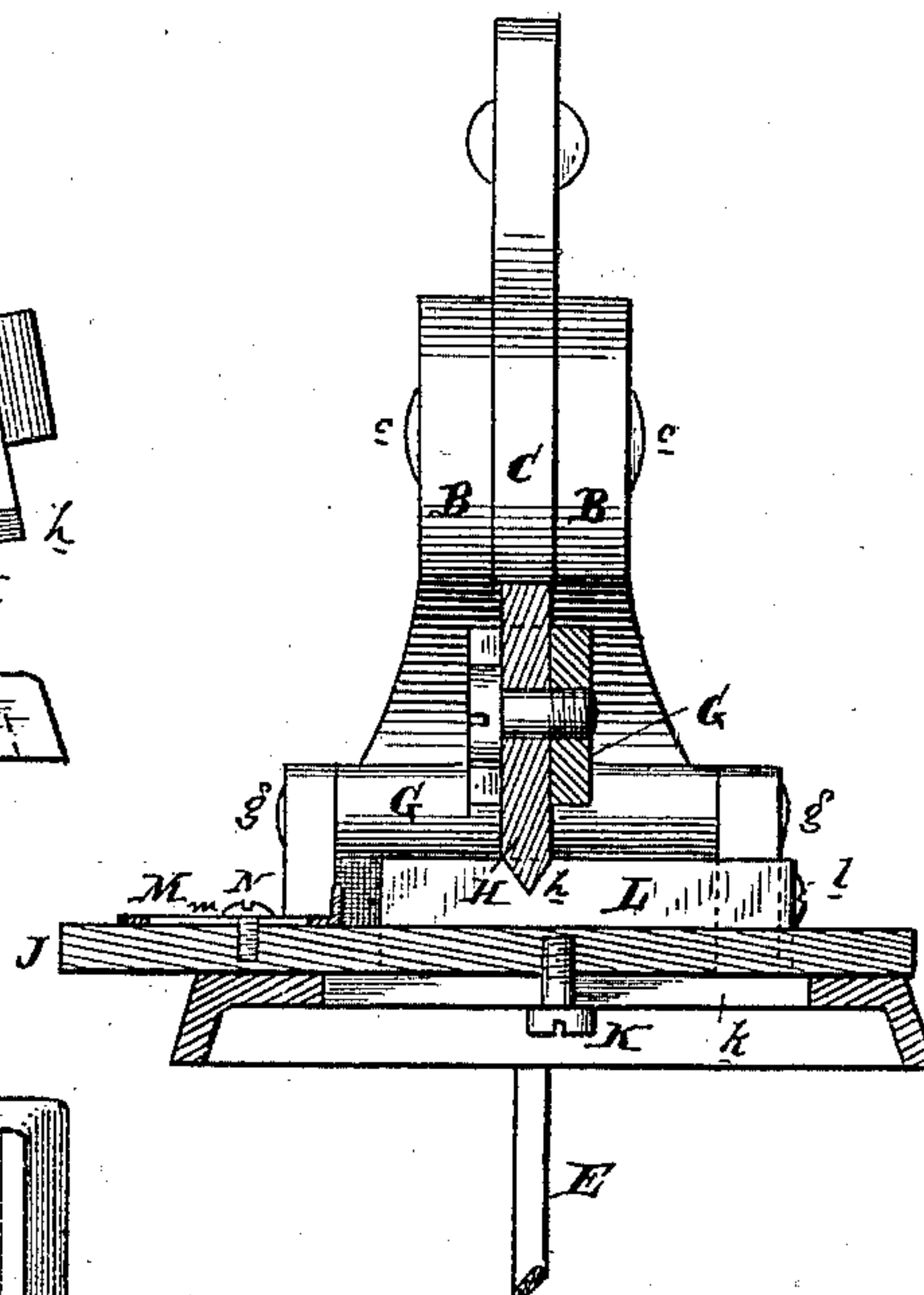


Fig. 3

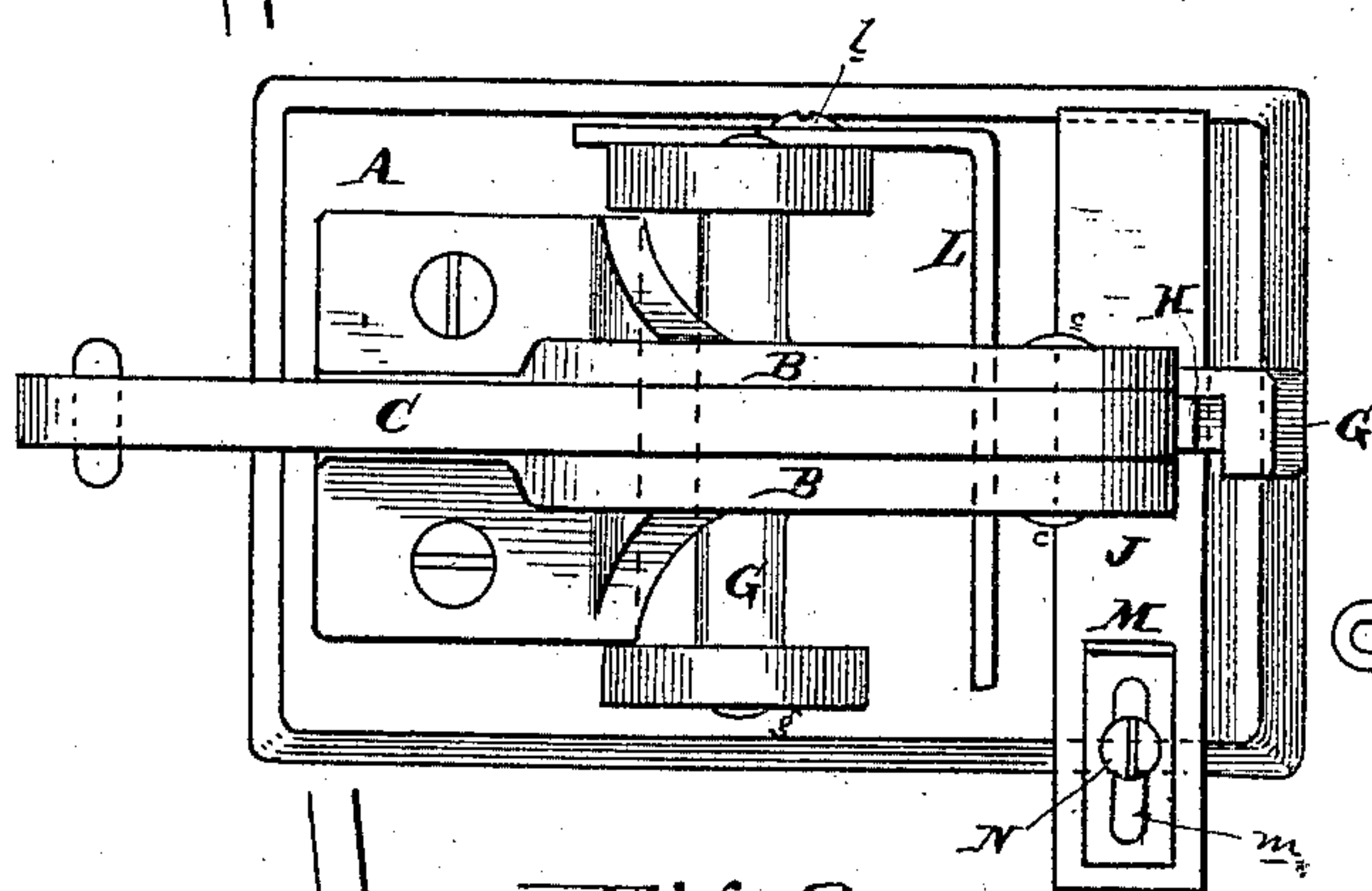


Fig. 2

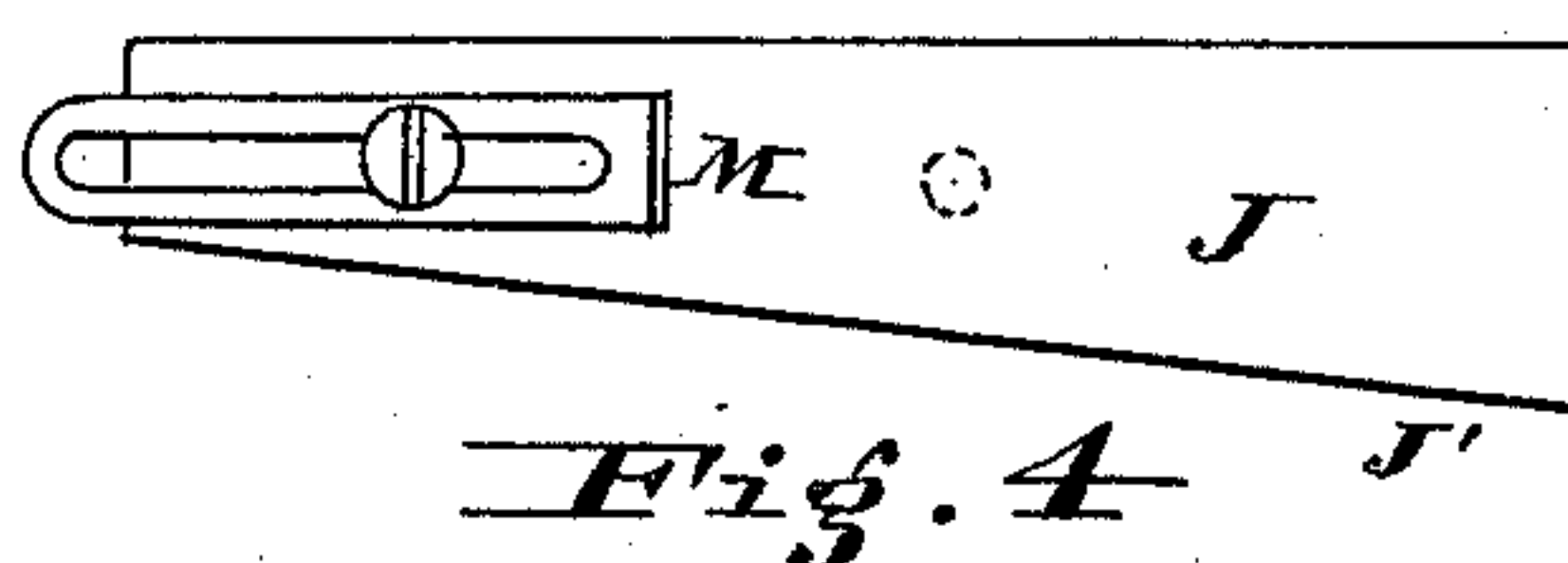


Fig. 4

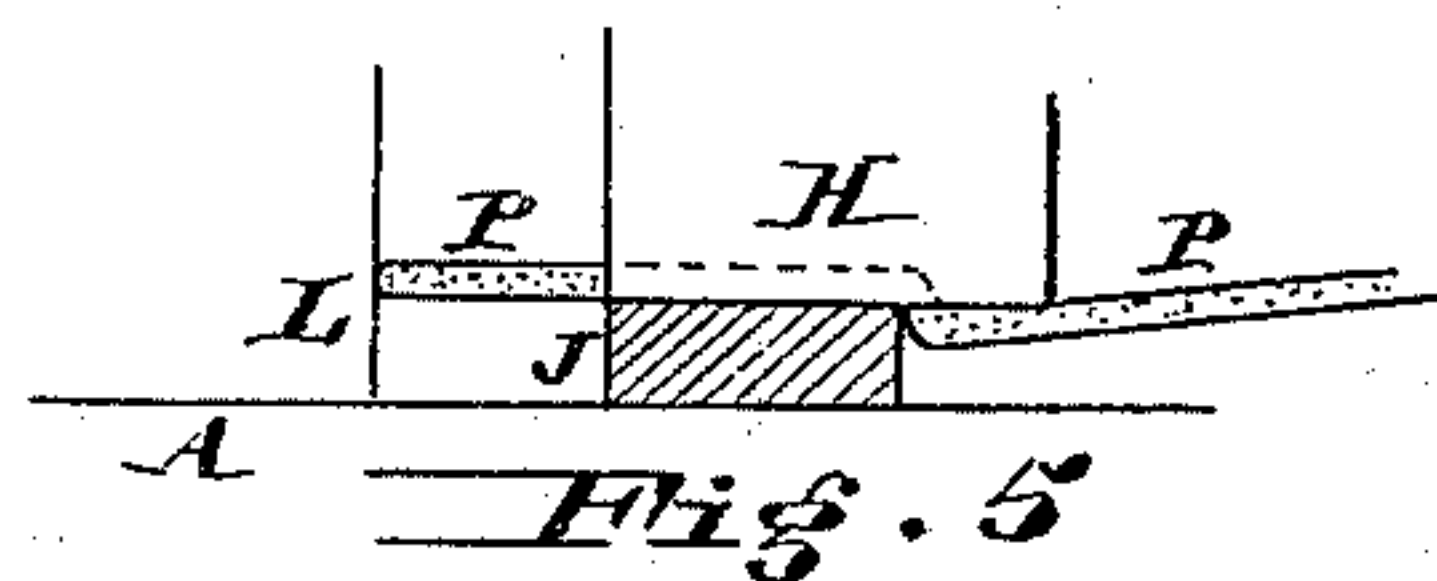
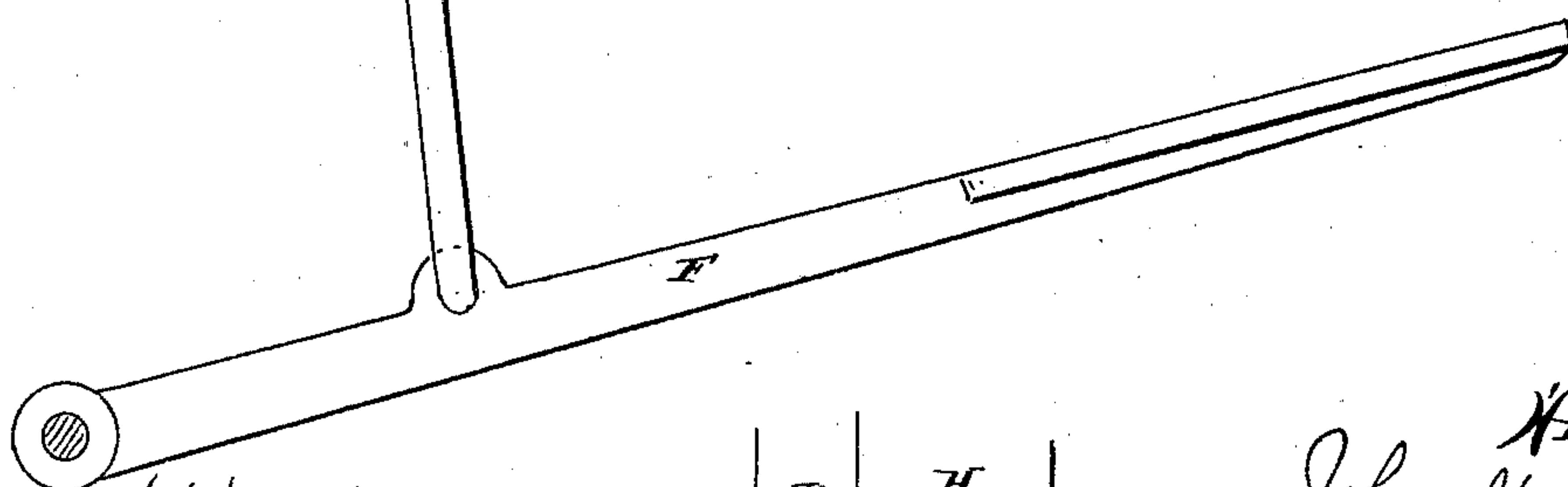


Fig. 5

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J. H. Osborn
L. J. M. at 05

Inventor
John H. Osborn
By his atty -

[Signature]

UNITED STATES PATENT OFFICE.

JOHN H. OSBORNE, OF PHILADELPHIA, PENNSYLVANIA.

BUTTON-HOLE CUTTER.

SPECIFICATION forming part of Letters Patent No. 277,602, dated May 15, 1883.

Application filed January 9, 1883. (No model.)

To all whom it may concern:

Be it known that I, JOHN H. OSBORNE, of the city and county of Philadelphia, and State of Pennsylvania, have invented an Improvement in Button-Hole Cutters, of which the following is a specification.

My invention has reference to button-hole cutters adapted to cut button-holes in garments of all kinds; and it consists of a cutting-block, a cutter, and suitable guide devices to regulate the length of cut and the distance of said cuts from each other and from the edge of the goods, and in details of construction, all of which is fully set forth in the following specification, and shown in the accompanying drawings, which form part thereof.

Heretofore button-hole cutters have been guided by guess-work only, and in practice the holes were cut crookedly and at unequal distances apart, and the operation at best was extremely slow, the cutter being actuated by hand.

The object of my invention is to provide the cutting mechanism of a button-hole cutter with suitable means to guide the fabric to be cut, so as to insure the holes being cut at uniform distances apart and parallel to each other, and, further, to operate the cutter by foot or auxiliary power, thus enabling both hands being used in guiding the fabric.

In the drawings, Figure 1 is a side elevation of my improved button-hole-cutting mechanism. Fig. 2 is a plan view of same. Fig. 3 is a front elevation of same, with the cutter and cutting-block in section. Fig. 4 is a plan view of one form of cutting-block, and Fig. 5 is a view showing method of cutting the hole in the fabric.

A is the bed-plate.

B is a standard or bracket, to the top of which is pivoted the cam-lever C, which works on the pin c.

D is the cam projection on said lever C, and is adapted to work against the upper edge of the knife or cutter H, which is secured to an arm, G, pivoted at g to bearings on the plate A. This arm and its cutter is kept up toward the cam projection D by a spring, I, or other suitable device, as a weight, &c. The bottom or lower edge, h, of the cutter is made sharp, as shown.

L is a guide, and is arranged at right angles to the cutter, and to the rear of same, and may

be adjusted to and from the cutter by a slot and screw, l.

J is the cutting-block, and is made of brass or other ductile metal, and is secured to the plate A by screw K, and is made adjustable by means of slot k in said plate, arranged at right angles to the cutting-edge. If the said block J is made rectangular, as shown in Fig. 2, it is merely adjusted to change the surface which receives the sharp edge h of the cutter H; but when the cutting-block is made tapering in width, as shown in Fig. 4, then the adjusting-screw and slot are used for the double purpose of changing the surface receiving the cutter, also the position of the block to increase or decrease the length of cut.

M is a guide which projects upward from the block J, and is made adjustable thereon by slot m and screw N. The distance of this guide from the cutting-edge of the cutter H regulates the distance of one button-hole from another. The arm or lever C is actuated by a rod, E, and foot-lever F, or the lever C may be vibrated by mechanical power. If desired, the cutting-block may be made of wood or any substance having a sufficiently hard texture to prevent the fabric being pressed into it by the cutter H.

The operation is as follows: The first button-hole is cut carefully, and after the fabric P has been pressed against the guide L. Now the fabric is guided against the guide L by the right hand, while the left hand brings the button-hole just cut over the guide, which enters it, and now the next hole is cut, and so on. The guide insures the holes being at a uniform distance from the edge of the fabric, and the guide insures the holes being cut at an equal distance apart.

By the use of this machine a single operator can do several times as much work as can be done by the hand-machines in the same time, and the work is done far more perfectly and satisfactorily.

I do not limit myself to the exact construction shown, as the machine may be varied in many ways without departing from my invention.

I am aware of the patent to Rehfuß, No. 43,707, of 1864, and claim nothing therein shown or described.

Having now described my invention, what I

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

1. In a button-hole-cutting machine, a cutter and cutting-block, in combination with a guide arranged to catch in the previously-cut button-hole to regulate the distance of the button-holes from each other, substantially as and for the purpose specified.

2. In a button-hole-cutting machine, a cutter and cutting-block, in combination with a guide arranged to catch in the previously-cut button-hole to regulate the distance of the button-holes from each other, and a guide to control the distance of the button-holes from the edge of the fabric, substantially as and for the purpose specified.

3. In a button-hole cutter, a cutter and means to reciprocate said cutter, in combination with a cutting-block having one of its edges at right angles to said cutter and its other edge tapered obliquely thereto, the said block having a cutting-surface of gradually-diminishing width, and suitable guides for the cloth, substantially as and for the purpose specified.

4. In a button-hole-cutting machine, a cutter and cutting-block, in combination with a guide arranged to catch in the previously-cut button-hole to regulate the distance of the button-holes from each other, and means to adjust

said guide, substantially as and for the purpose specified.

5. In a button-hole-cutting machine, a cutter, in combination with means to actuate said cutter, and an adjustable tapering cutting-block, the said blocks having a cutting-surface of gradually-diminishing width, substantially as and for the purpose specified.

6. In a button-hole-cutting machine, a cutter and cutting-block, in combination with a guide arranged to catch in the previously-cut button-hole to regulate the distance of the button-holes from each other, and means to adjust said cutting-block, substantially as and for the purpose specified.

7. In a button-hole-cutting machine, a cutter and cutting-block, in combination with a guide supported and carried by said cutting-block to regulate the distance of the button-holes from each other, and means to independently adjust both said guide and cutting-block, substantially as and for the purpose specified.

In testimony of which invention I hereunto set my hand.

JOHN H. OSBORNE.

Witnesses:

JAS. MCGEOGH,
JOSEPH FAY.