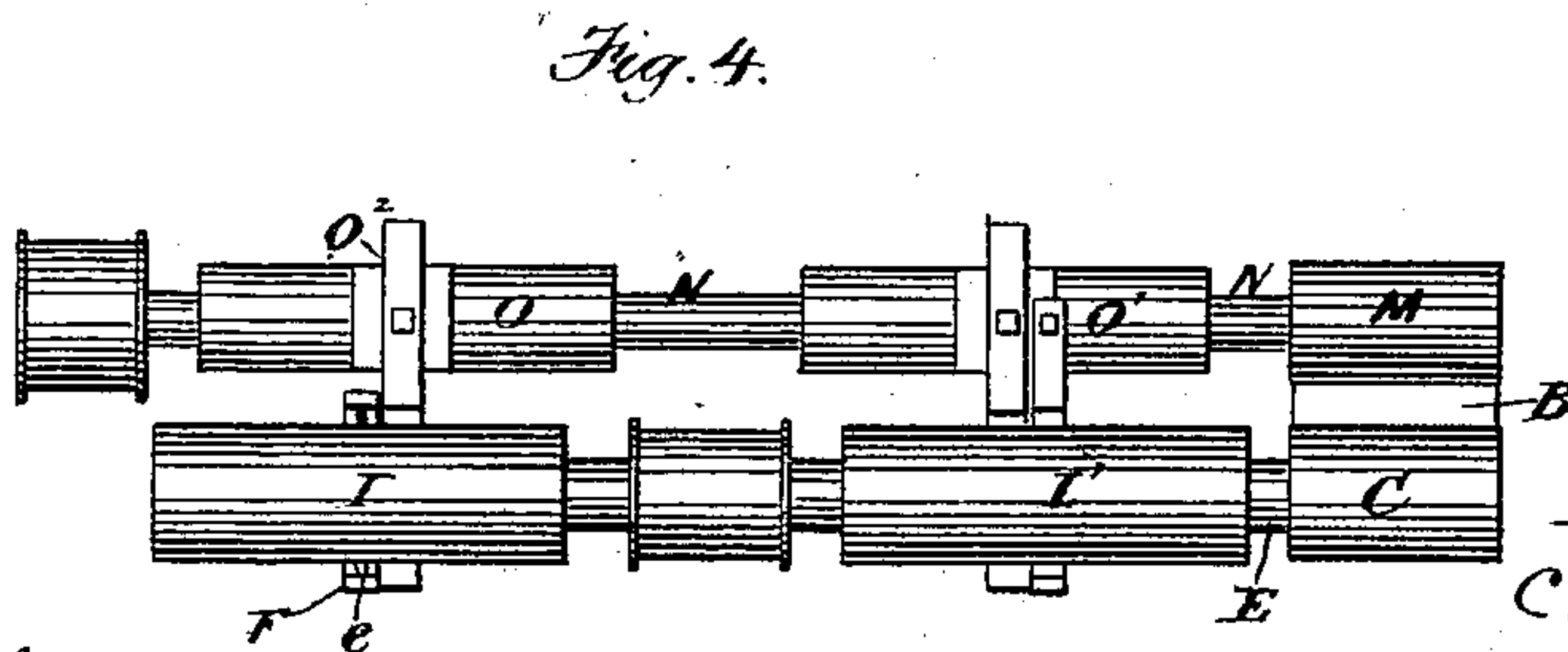
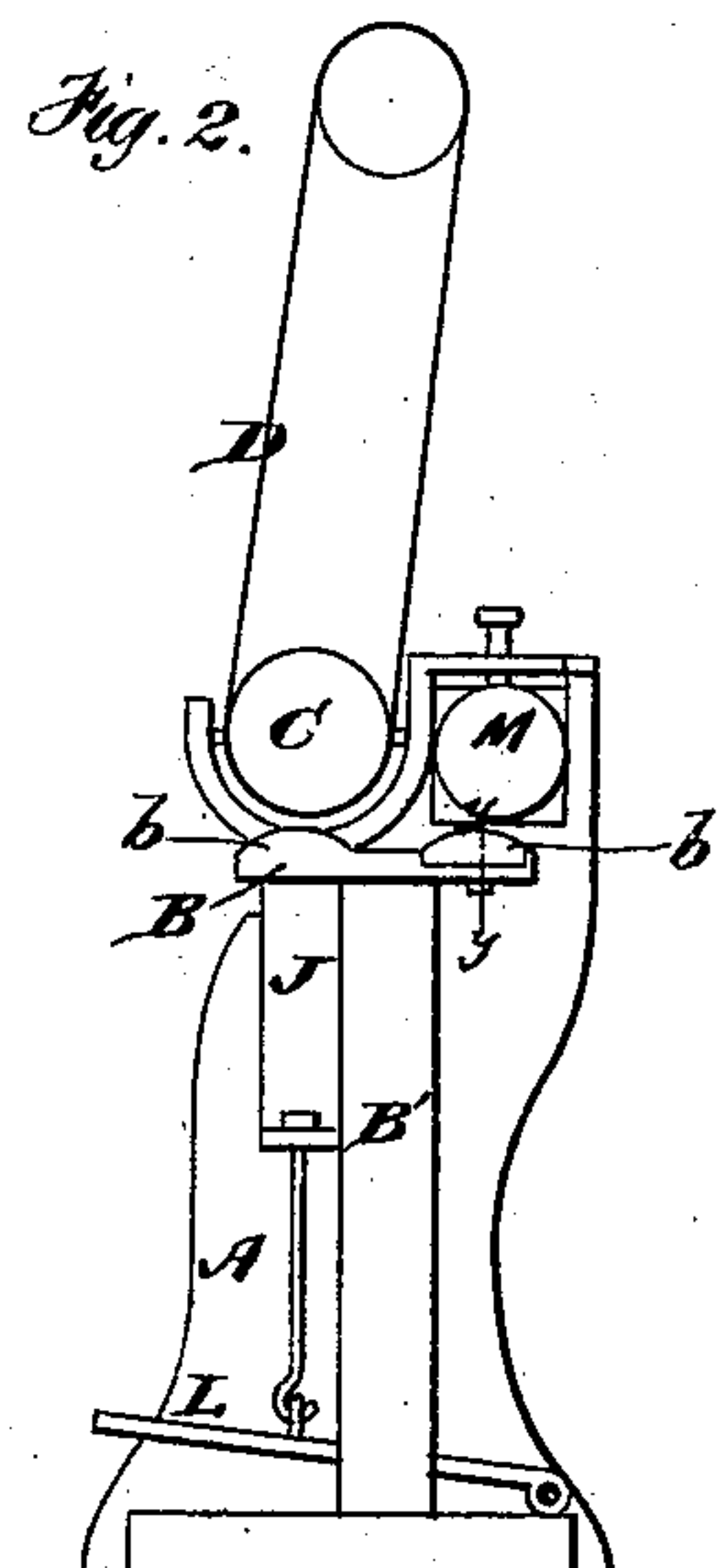
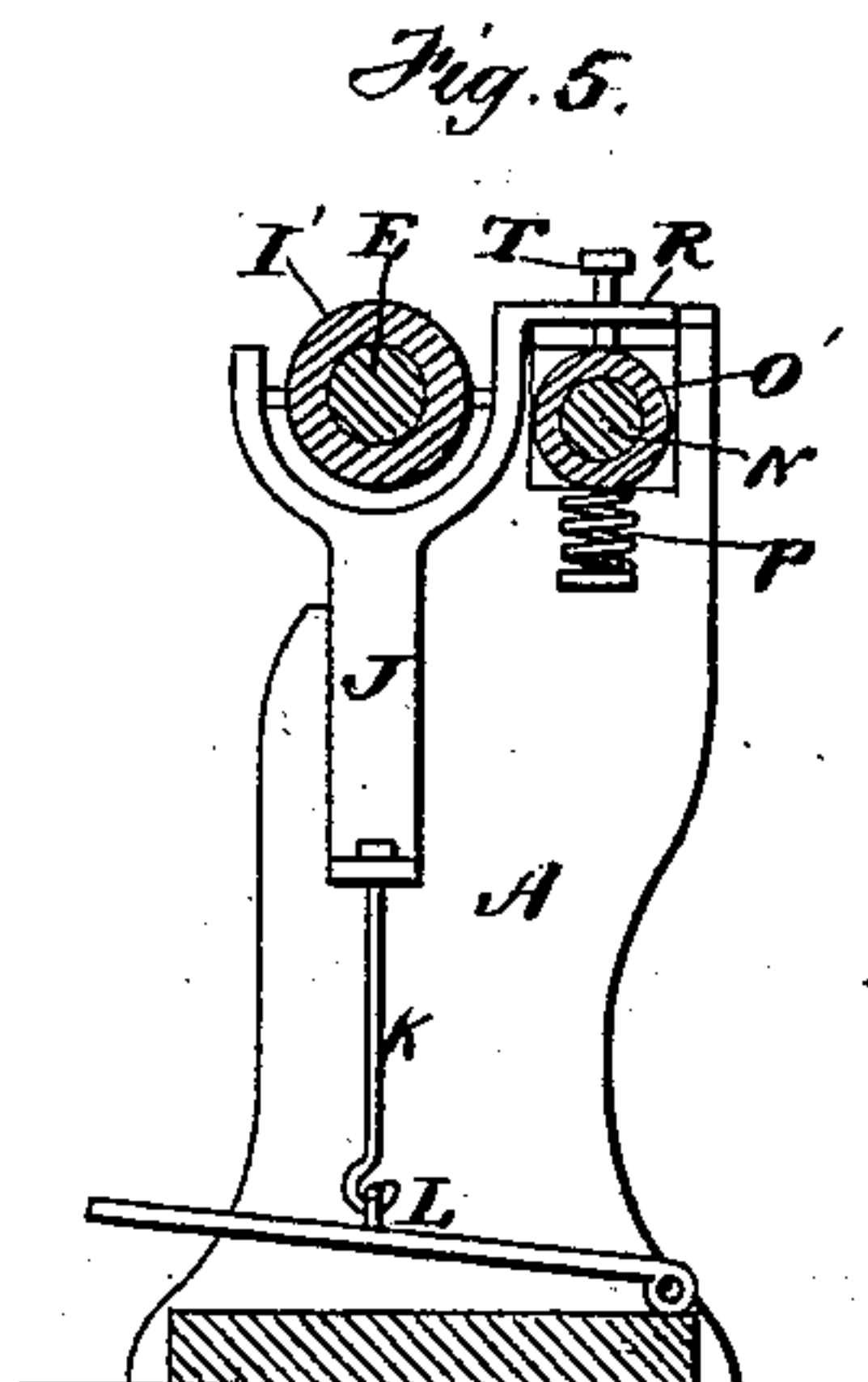
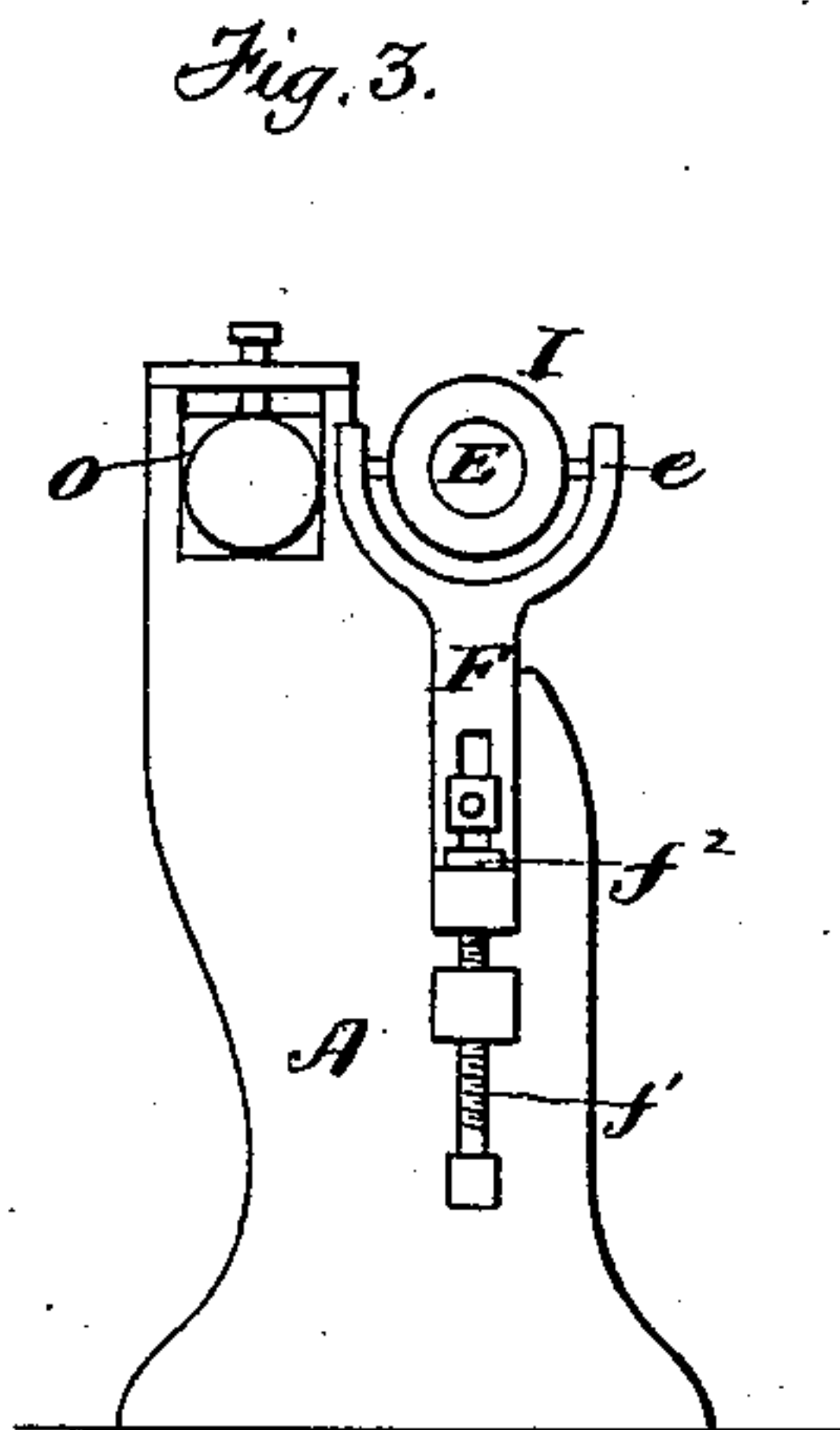
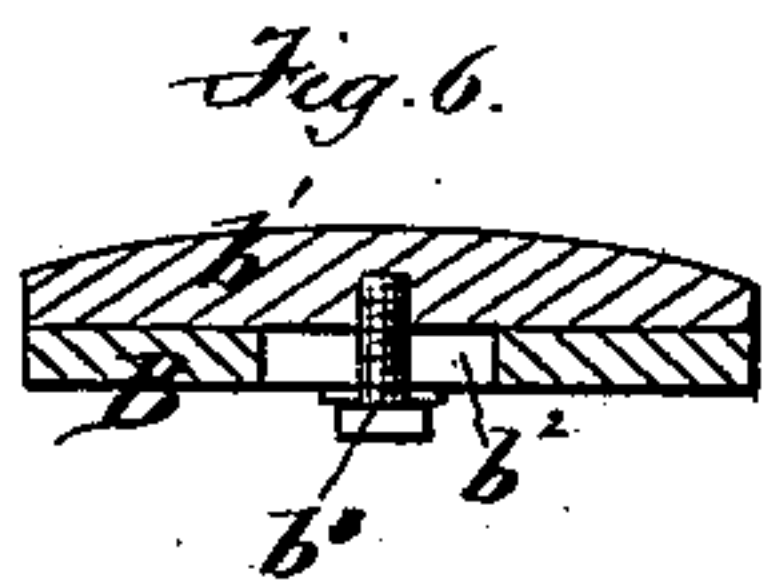
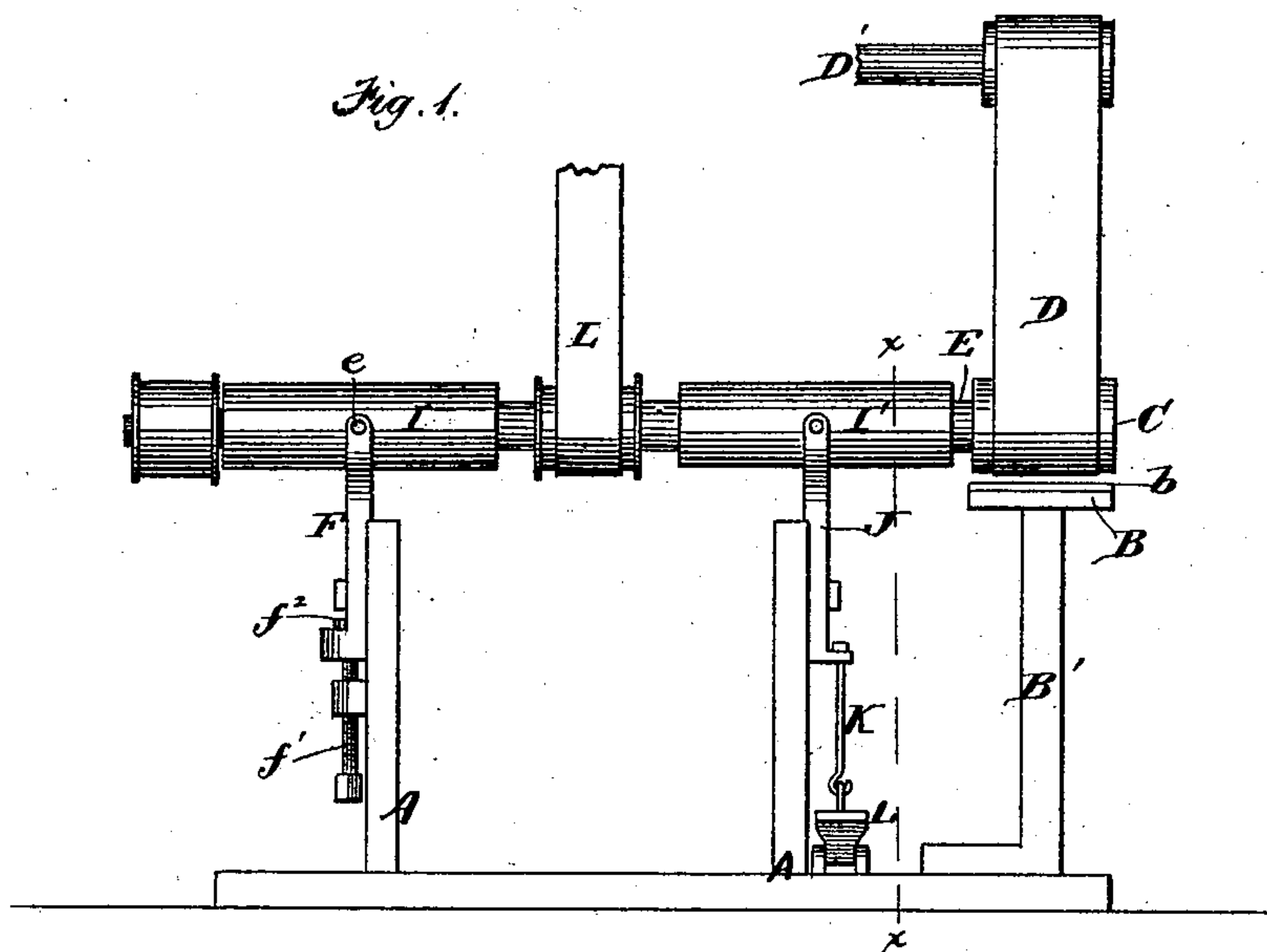


(No Model.)

C. J. SARGENT.
Hat-Pouncing Machine.

No. 226,554.

Patented April 13, 1880.



Witnesses.
H. F. Hadlun.
C. B. Fairchild.

Inventor.
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by Wright & Brown
Atty.

UNITED STATES PATENT OFFICE.

CALVIN J. SARGENT, OF METHUEN, MASSACHUSETTS, ASSIGNOR TO HIMSELF, J. W. FULTON, AND C. H. TENNEY & BROTHER, OF SAME PLACE.

HAT-POUNCING MACHINE.

SPECIFICATION forming part of Letters Patent No. 226,554, dated April 13, 1880.

Application filed March 11, 1880. (No model.)

To all whom it may concern :

Be it known that I, CALVIN J. SARGENT, of Methuen, in the county of Essex and State of Massachusetts, have invented certain Improvements in Hat-Pouncing Machines, of which the following is a specification.

This invention relates to hat-pouncing machines employing a moving surface of granular material, usually a roll coated with sand-paper, 10 to act on the surface of a hat-body, and a bed to support the hat-body while it is being acted on by the pouncing-surface. In this class of machines the bed has always been adapted to tilt or be inclined longitudinally, so that one 15 end may be brought closer to the pouncing-surface than the other, it being sometimes essential that some portions of the hat be pressed more firmly against the pouncing-surface than other portions, the point where greatest pressure is required varying with circumstances. 20

I have found that when the bed is adapted to be inclined it is liable to be moved too far, or, in other words, to be pressed too hard against the hat-body, the bed being light and 25 adapted to be moved by a comparatively light pressure on the treadle or other means employed to move the bed. The result is that uneven work is produced, and the hat-body is liable to be injured and corrugated by the fluctuations 30 of the bed, which vary its pressure against the pouncing-surface more than is desirable.

My invention has for its chief object to obviate this difficulty; and to this end it consists in the provision of means for inclining and varying the inclination of the pouncing-surface and for normally raising or holding the pouncing-surface away from the bed or table with a yielding pressure, the bed being fixed or rigid. The pouncing-surface 40 is supported by a roller located on a shaft; and as the inclination of the pouncing-surface necessarily involves the inclination of the roller and shaft, there can be no such fluctuations or extreme variations of pressure as are incident to a movable bed, on account of 45 the means provided to elevate the pouncing-surface and shaft and hold them upwardly with a yielding pressure, such means being preferably the belt that drives the roller supporting the pouncing-surface. 50

My invention also consists in certain other improvements relating to a pouncing-machine employing a fixed bed or table and an adjustable or inclinable pouncing-surface, all of which I will now proceed to describe and claim. 55

Of the accompanying drawings, forming a part of this specification, Figure 1 represents a front elevation of a pouncing-machine embodying my invention. Figs. 2 and 3 represent elevations of the opposite ends. Fig. 60 4 represents a top view. Fig. 5 represents a section on line *x x*, Fig. 1, and Fig. 6 represents a section on line *y y*, Fig. 2.

The same letters of reference indicate the same parts in all the figures. 65

In the drawings, A represents a general frame of any suitable construction. B represents a fixed bed or table to support a hat-body while it is being pounced. This table is, in the present instance, of sufficient length to co- 70 operate with both the pouncing-roll and the feed-roll, hereinafter described, although it may be divided into two separate fixed tables, one for each roll, if desired. The table is preferably provided with two convex surfaces, 75 *b b'*, extending in the same direction as the pouncing and feed rolls, and located under the same. The table is supported by a vertical standard, B', so that both its ends are unobstructed, thereby securing an advantage 80 which will be hereinafter set forth.

C represents what may be called the "pouncing-roll," which, in the present instance, is a roll around which passes a belt, D, coated with granular material, as shown in the patent 85 to A. L. F. Mitchell, No. 221,594, November 11, 1879, the roll and belt being a substitute or equivalent for the ordinary pouncing-roll coated with sand-paper.

The belt D passes over a pulley on a shaft, 90 D', which is supported in any suitable manner.

The roll C is located on a shaft, E, which is supported in sleeves I I', the former of which is pivoted at *e* to a forked standard, F, at 95 the end of the frame A opposite the table B.

The standard F is vertically movable between guides in the frame A, and is held at any desired height by any suitable means, those employed at present being a screw, *f'*, 100

rigidly attached to the frame A, and having an enlarged head, f^2 , working in a socket in the standard F.

The pivoted shaft and its sleeve I' are adapted to swing up and down at the free end, carrying the roll C, so as to move the latter toward and from the table B; and the shaft is supported at its swinging end by the belt D, which may also be the driving-belt of the roll C, said belt having sufficient elasticity to enable it to hold the roll C upwardly with a yielding pressure and permit said roll to be depressed and brought as close to the table B as may be desired. The vertical movement of the roll will not usually be more than one-thirtieth of an inch.

J represents a forked standard, which is pivoted to the sleeve I, and is adapted to slide vertically in guides in the frame A. The standard J is connected by a rod, K, to a treadle, L, or other suitable device, through which the sleeve I', with the shaft and pouncing-roll, may be depressed by the operator.

I do not confine myself to the employment of the belt D for the purpose of supporting the roll C, as in some cases a spring may be employed for the same purpose.

If desired, the shaft E may be driven by a special driving-belt, L, and the latter may be used to assist the belt D in giving the necessary upward movement to the roll C.

It will be seen that the shaft and roll C are so supported that considerable downward pressure is required to depress the latter. The movements of the roll must therefore be gradual and free from fluctuations, so that a hat-body interposed, as usual, between the bed and the roll C is not liable to be corrugated by sudden or excessive increase of pressure.

The adjustability of the pivoted end of the shaft E enables the inclination of the latter to be varied more than if it were not adjustable.

M represents the feed-roll, which is located over the convex surface b' of the bed or table B. This feed-roll is usually composed of a metal cylinder roughened like a file on its surface, and is often called a "file-roll."

N represents the shaft supporting the file-roll M. This shaft is supported, like the shaft E, in two sleeves, O O', the former being pivoted at O² to the frame A, and the latter being preferably supported by a spring, P, which raises the roll M from the bed B.

The sleeve O' is depressed by an arm, R, extending from the standard J, said arm being provided with an adjustable screw, T, which bears on the top of the sleeve O' when the standard J is depressed.

By raising or lowering the screw R the movement of the shaft N may be made equal to or less than the movement of the shaft E, so that the file-roll can be given the same or a less degree of pressure than the roll C.

If desired, the driving-belt of the shaft N may be arranged to support it instead of the spring P.

The convex surface b' under the file-roll M

is preferably made adjustable longitudinally, so that its highest point can be moved to cooperate with different parts of the roll M, said surface b' being convex longitudinally, as shown in Fig. 6.

The bed or table B is provided with a slot, b^2 , through which passes a screw, b^3 , into the surface b' , said slot and screw permitting the described adjustment of the surface b' .

The employment of the fixed table enables the usual motion of the hat-body from the pouncing-roll to the file-roll to be reversed, and the file-roll to be used as a brake to impede the motion of the hat-body toward the pouncing-roll. When the machine is operated in this manner the hat-body is pressed by the file-roll before it reaches the pouncing-roll, and its nap is not pressed down after leaving the pouncing-roll.

The unobstructed ends of the table B enable a hat-body to be placed on either end of the table, so that after one surface has been pounced the hat can be turned inside out and placed on the opposite end of the table, thus enabling its other surface to be pounced in such manner as to give the nap the same direction as the surface first pounced.

The two unobstructed ends of the table therefore enable one machine to do work which has heretofore required two machines, the means employed to move the bed or table in all previous machines obstructing one end of the bed to such an extent that a hat-body could not be placed equally well on either end.

If desired, the roll C may be journaled on one end of a non-rotating arm, which is hinged at its other end to a suitable support. By such a construction the sleeves I I' would be dispensed with and the machine simplified.

I claim—

1. In a hat-pouncing machine, the combination of a fixed table and an adjustable pouncing-surface, as set forth.

2. In a hat-pouncing machine, the combination of a fixed table and a pouncing-roll or its equivalent, supported on a pivoted shaft or arm, means for holding the roll upwardly with a yielding pressure, and means whereby the roll may be depressed, as set forth.

3. In a hat-pouncing machine, the combination of a fixed table and a shaft or arm carrying at one end a pouncing-roll or its equivalent, and pivoted at its other end to a vertically-adjustable support, as set forth.

4. In a hat-pouncing machine, the combination of a fixed table and a vertically-movable feed-roller, as set forth.

5. The combination of the vertically-movable pouncing-roll and the vertically-movable feed-roll with the fixed table, as set forth.

6. The combination of the vertically-movable feed-roll with the table having the adjustable surface, as set forth.

7. The combination of the fixed table B, the pivoted shaft E, carrying the pouncing-roll, the pivoted shaft N, carrying the feed-roll M, and means, substantially as described, where-

by the movements of the shaft E may be imparted to any desired extent to the shaft N, as set forth.

5 8. In a hat-pouncing machine, the combination, with the pouncing-roll and feed-roll, of the fixed table having two unobstructed ends, as set forth.

In testimony whereof I have signed my name

to this specification, in the presence of two subscribing witnesses, this 6th day of March, A. 10 D. 1880.

CALVIN J. SARGENT.

Witnesses:

FRANK E. SMART,
G. A. LEWIS.