

(No Model.)

3 Sheets—Sheet 1.

H. H. NORRINGTON.
CHECK PUNCHING MACHINE.

No. 362,586.

Patented May 10, 1887.

Fig. 1.

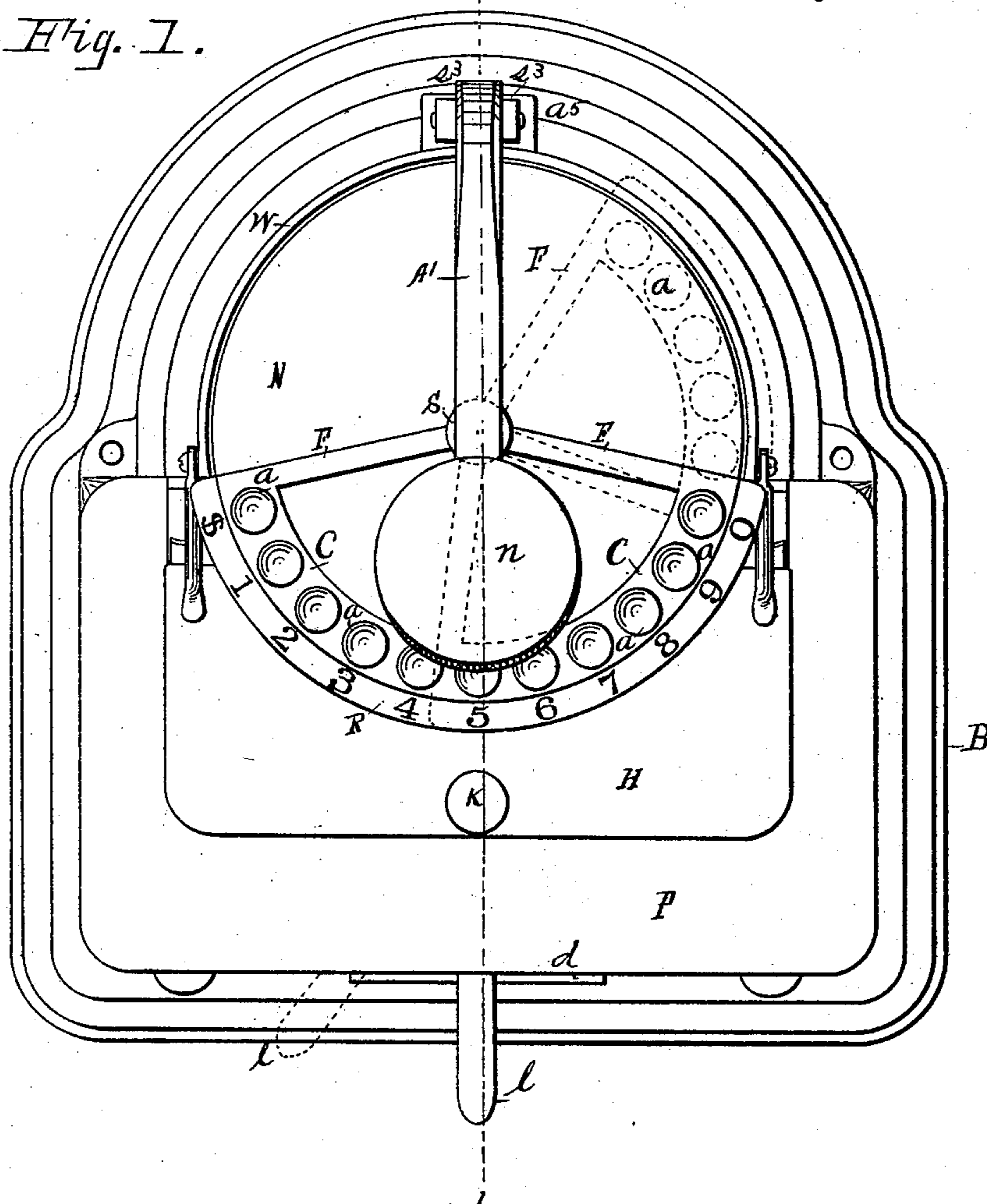
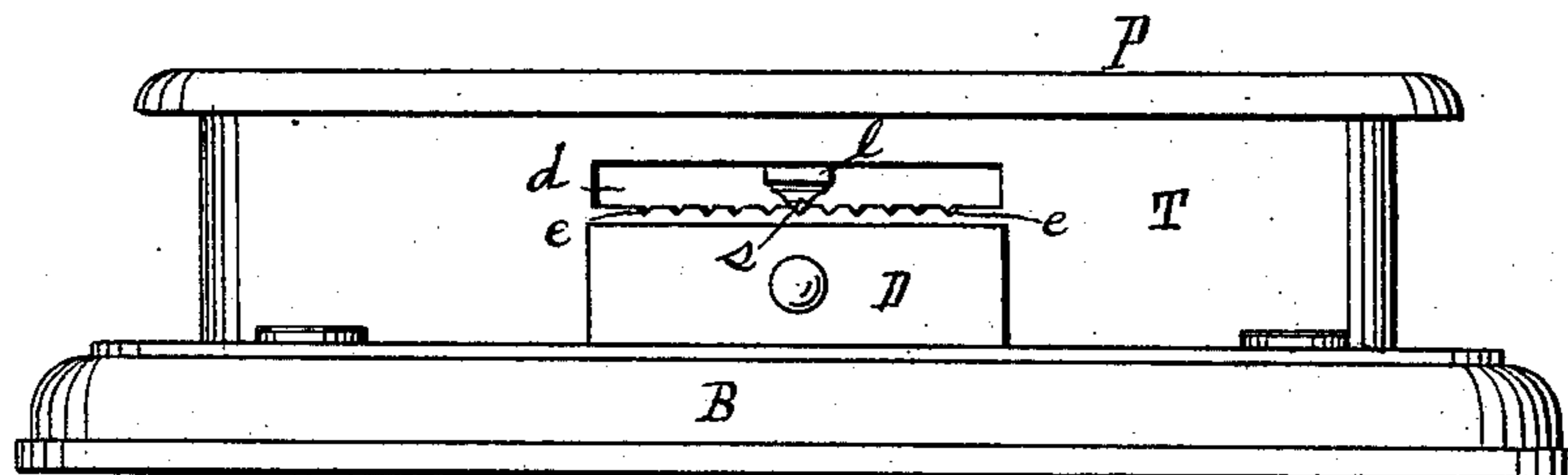


Fig. 2.



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Fig. 5.

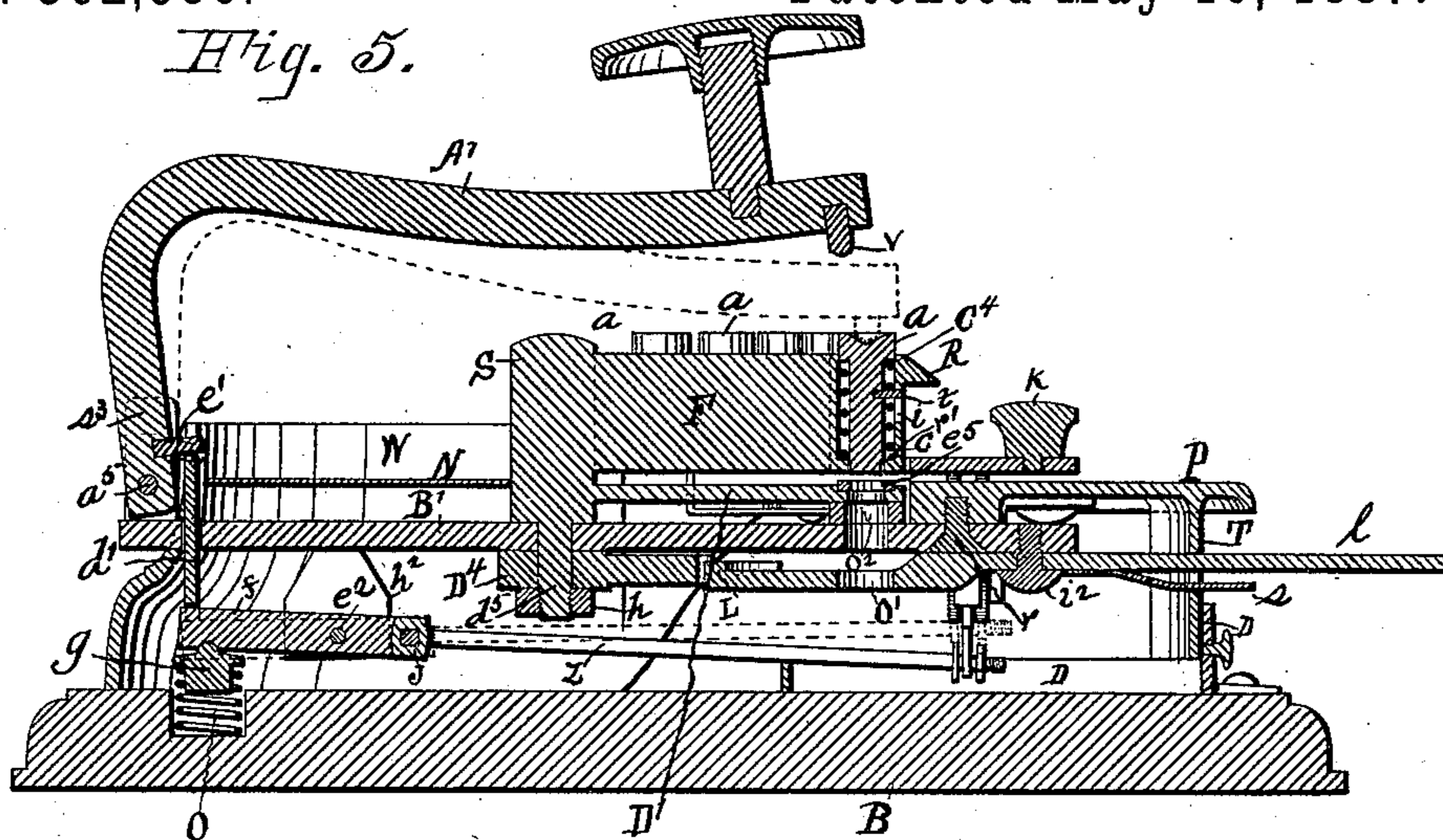
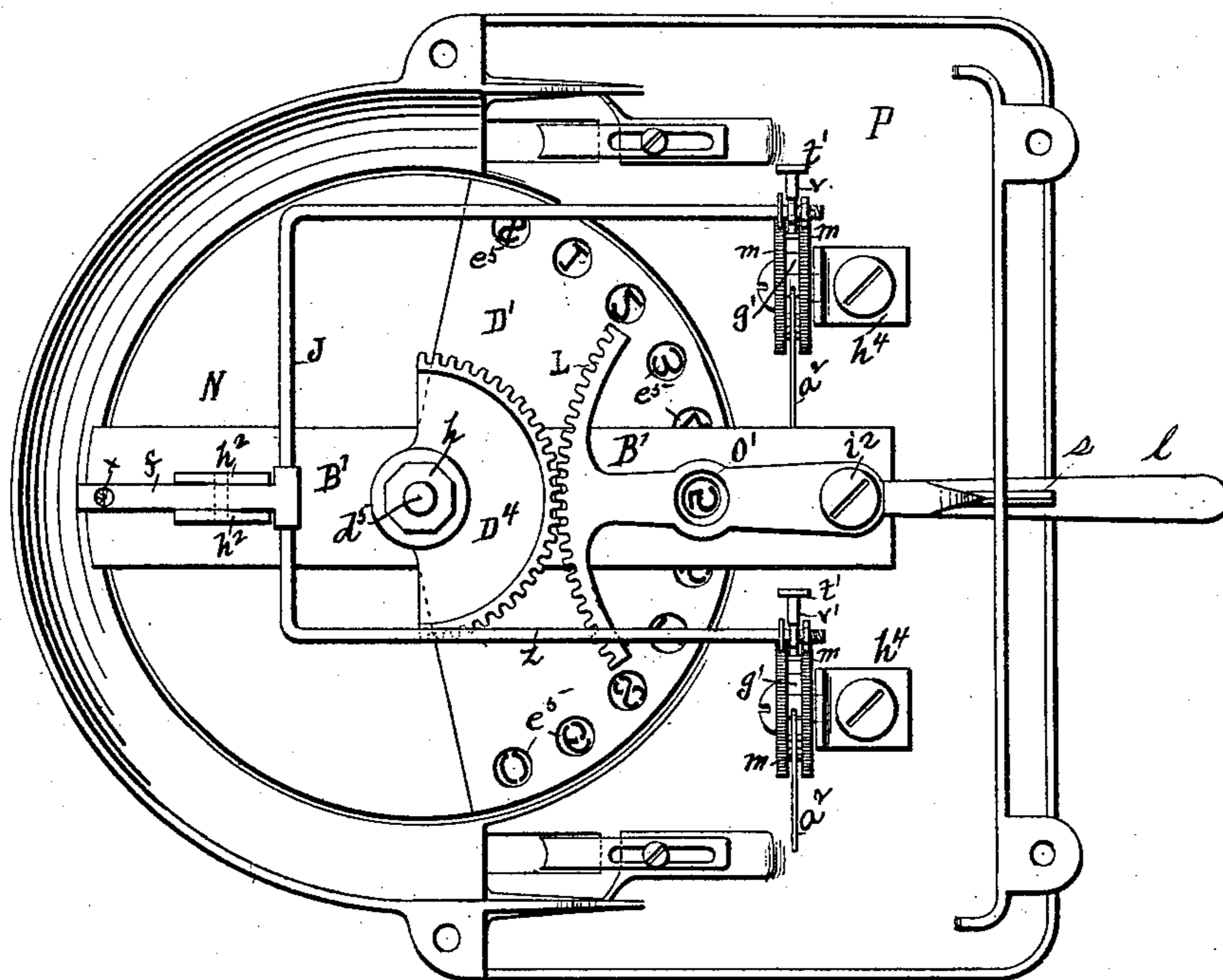


Fig. 6.



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UNITED STATES PATENT OFFICE.

HENRY H. NORRINGTON, OF WEST BAY CITY, MICHIGAN.

CHECK-PUNCHING MACHINE.

SPECIFICATION forming part of Letters Patent No. 362,586, dated May 10, 1887.

Application filed July 20, 1885. Serial No. 172,080. (No model.)

To all whom it may concern:

Be it known that I, HENRY H. NORRINGTON, a citizen of the United States, residing at West Bay City, in the county of Bay and State of Michigan, have invented certain new and useful Improvements in Check-Punching Machines; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

The object of my present invention is to afford ample security to the maker or drawer of checks, drafts, receipts, money-orders, and like vouchers; and it consists in the combination of devices for cutting or punching out of the face of the draft or voucher the amount of face-value it is to represent, as hereinafter set forth, and pointed out in the claims.

My present invention relates to that class of perforating-machines on which I hold several Letters Patent. The presser-plate H shown herein appears in my former patents, and need not be described.

In my present invention I have arranged a series of male dies or punches in a support in the form of an arc, which has an oscillating motion horizontally, being actuated by an independent lever attached below the top plate of the machine, and over the punches I support a curved lever to force the punches down. The springs which lift the punches up are housed within the post supporting the punches. I employ two sets of double feed-wheels, which are operated by a double-armed lever. I locate below the dies, at the point of operation, a drawer, which catches the clippings.

In the drawings forming a part of this specification, Figure 1 is a top plan of my invention, with a change of position shown in dotted lines. Fig. 2 is a partial front elevation. Fig. 3 is a side elevation. Fig. 4 is an enlarged isometrical view of the feeding devices. Fig. 5 is a section on dotted line 1 1 of Fig. 1. Fig. 6 is a plan of bottom turned upward, having base removed.

B is the base or bottom support of the machine; T, the front; W, the circular hollow back.

B' is a central supporting-bar, which is attached at one end to the under side of the bed-plate P by means of a screw, *r*. S is a hub having diverging arms F F F, which are united to the male die or punch-supporting plate C. This is in the form of an arc. (See Fig. 1.) In the plate C, I locate the male die-punches *a* in an upright position. The body of each punch is reduced, as shown at *c*⁴, thus forming a flange around each punch. I locate a coiled wire spring, *c*, around the reduced portion of each punch, as shown in Fig. 5. Each spring has a bearing upon the ledge *r*' and against the flange of the punch, so that when a punch is forced down the spring will raise the punch up to the position shown in Figs. 1, 3, and 5.

It will be observed the springs *c* are housed within the supporting-plate C. The pin *t* of each punch working in the slot *i* is the same as shown in my Letters Patent No. 249,975, and need not be described in detail. Attached to the hub S, and adapted to turn with the same and the male die or punch supporting-plate, is a disk, D', in which I locate the female dies *e*⁵, which register with and receive the male-die characters. Said characters consist of the ten digits and the star or dollar sign, as shown in Fig. 6. The hub S is reduced at the lower end and passes through the supporting-bar B'. The reduced portion *d*⁵ forms a journal, the hub turning on the bar. Below the bar, and to the part *d*⁵ of the hub I attach firmly the gear-section D⁴, having cogs upon its curved periphery. A nut, *h*, secures the gear-section D⁴ firmly to the hub. I pivotally attach to the plate B' at the front the reciprocating lever *l* by means of a screw, *i*². (See Fig. 5.) Said lever extends outward horizontally through the slot *d*, formed in the front plate, T, of the machine. (See Figs. 1, 2, 3, and 5.) The inner end of the lever is provided with a gear or cog section, L, which engages with the cogs on the section D⁴, attached to the hub S, as shown in Figs. 5 and 6. It will be observed by this arrangement the moving of the outer end of the lever *l* causes the hub S to turn, thereby turning the series of punches, as shown by dotted lines in Fig. 1; and the moving of the free end of the lever *l* to the right and left gives the dies an oscillating motion horizontally, which is rapidly accomplished. I form

a hole, O' , through the arm of the lever l , so that when the arm is under the dies when said dies are cutting the paper the cut-out portion may fall through the hole into the drawer D below it, as shown. (See Figs. 2, 5, and 6.) I also form a hole, O^2 , through the supporting-plate where it comes directly under the working dies, to allow the clippings to fall through into the drawer D . I attach to the lever l a spring, s , which projects through the front of the machine. The spring is formed with a V-shaped under face, which drops into the series of indicating-notches e of the front T of the machine, as shown in Figs. 2, 3, and 5. The notches e are so arranged that when the spring s drops into any one of them the lever l will be locked or stopped and a punch will stand in position under the pin v of the pressing-lever A' . I attach to or form integral with the plate C a ledge or slanting table, R , whose circle is coincident with the plate C , as shown in Figs. 1 and 3. Upon the ledge R , I mount raised characters corresponding with the characters on the punches. I place them opposite or in front of each punch. It will be observed as the punches are oscillated or moved horizontally the characters on the ledge travel with them. By this arrangement, when a character on the ledge R is in a vertical line under the free end of the lever A' , the punch representing that character is in position to be depressed by placing the hand upon the knob n and pressing the lever A' down, as shown by dotted lines of Fig. 5, when the plunger v , striking the concaved upper end of the punch a , forces the punch through the paper, thus punching a figure in the paper of the amount desired, the draft or paper being first inserted between the dies. The curved arm A' is pivoted to the uprights $s^3 s^3$, as shown at a^3 . I attach to the front of the arm, over the pivoted point, an arm or lug, e' . Engaging with said arm is a plunger, d' , its lower end meeting the upper face of the head f of the double-armed feed-lever J . The head f is pivoted between the hangers $h^2 h^2$ at e^2 , as shown in Figs. 4, 5, and 6. The lever J passes through one end of the head f . Its end portions are bent at right angles, forming arms $z z$. To the free ends of said arms I attach loosely the dogs $c^2 c^2$ by means of nuts or washers $e^4 e^4$, as shown in Fig. 6. To each dog I attach a spring, v' , which presses against the hanger t' . The upper end of each dog is hook-shaped and engages with the cogs of the wheels $g' g'$. Said wheels are secured between two feed-wheels, $m m$, and rigidly thereto. Said wheels are journaled on the hangers $h^4 h^4$. The peripheries of the wheels $m m$ project through the plate P , as shown in Figs. 3, 4, and 5. The check, draft, or paper to be punched is placed over the feed-wheels and under the presser-plate H , in the usual way, and is carried under the operating-dies by the movements of the feed-wheels. I locate in the

bottom of the machine a spring, O , having a follower, g , which presses upward in the seat x , formed on the under side of the head f of the forked lever. (See Figs. 5 and 6.)

It will be seen from the foregoing construction that when the lever A' is depressed, as shown by dotted lines of Fig. 5, a punch is forced through the paper. At the same time the plunger d' forces down the head f of the feed-arms, when said arms will be forced upward, as shown by dotted lines of Fig. 5, thus carrying up the dogs $c^2 c^2$, and by the pressure of the springs v' said dogs engage with the teeth of the wheels $g' g'$; that when the pressure upon the lever A' is released the depressed spring O forces up the plunger d' , thus lifting the lever A' to the normal position of Fig. 5. The spring O at the same time presses up the head f of the lever J , thus forcing down the arms $z z$ to the normal position shown in Fig. 5, thereby drawing down the dogs, causing the feed-wheels to move equally and in the same direction, thus moving the paper as the punch a rises.

N is a shield or guard which I attach to the hub S , its periphery being circular, and lying loosely within the circular hub W of the machine, and turning or swinging with the hub S . I attach to the machine two friction or pressure wires or strips, $a^2 a^2$, which engage with the feed-wheels and prevent them from turning backward when the dogs pass upward, as before stated.

It is obvious from the foregoing construction that the operator, with one hand on the lever l , may rapidly bring the character desired into position, and by the other hand depress the character by pressing upon the knob n of the overhanging lever A' , thus punching the amount desired in the paper with great rapidity and ease.

Having thus fully set forth my present invention as fully as deemed necessary, what I claim as new, and desire to secure by Letters Patent, is—

1. In a check-punching machine, the combination of the male and female dies, the hub S , plate C , and the lever l , located below the plate P , its gear adapted to engage with the gear of the hub S , as and for the purposes specified.

2. In a check-punching machine, and in combination, the arc-shaped plate C , supporting a series of punches, said punches having a reduced body, and springs encircling said reduced portion, said springs housed within the plate C , the arms connecting said plate to the hub S , a plate attached to said hub, supporting below the male dies a series of female dies, the gear attached to said hub, and a lever pivoted to the machine, its gear adapted to engage with the gear of the hub S , as and for the purposes specified.

3. In a check-punching machine, substantially as set forth, the combination of the feed-wheels $m m$, in duplicate, the wheels g' , located between them, the dogs mounted upon the

free ends of the forked lever, and means for operating said lever, as and for the purposes specified.

4. In a check-punching machine, and in combination, the series of male dies, the corresponding series of female dies, the whole mounted on suitable supports adapted to turn on a common center, the lever A', common to all, for depressing the male dies, the drawer D, located below the acting dies, and the lever l, located below the plate P, said lever being

geared to the hub of the die-supporting plates, whereby said dies may be brought into position for action below the lever A' and over the drawer D, as and for the purposes specified. 15

In testimony whereof I affix my signature in presence of two witnesses.

HENRY H. NORRINGTON.

Witnesses:

I. R. DARROW,
H. M. GILLET.