(No Model.) 2 Sheets—Sheet 1.

# G. W. BEEBE.

## CHECK PROTECTOR.

No. 576,999. Patented Feb. 16, 1897.

Fig. 1.

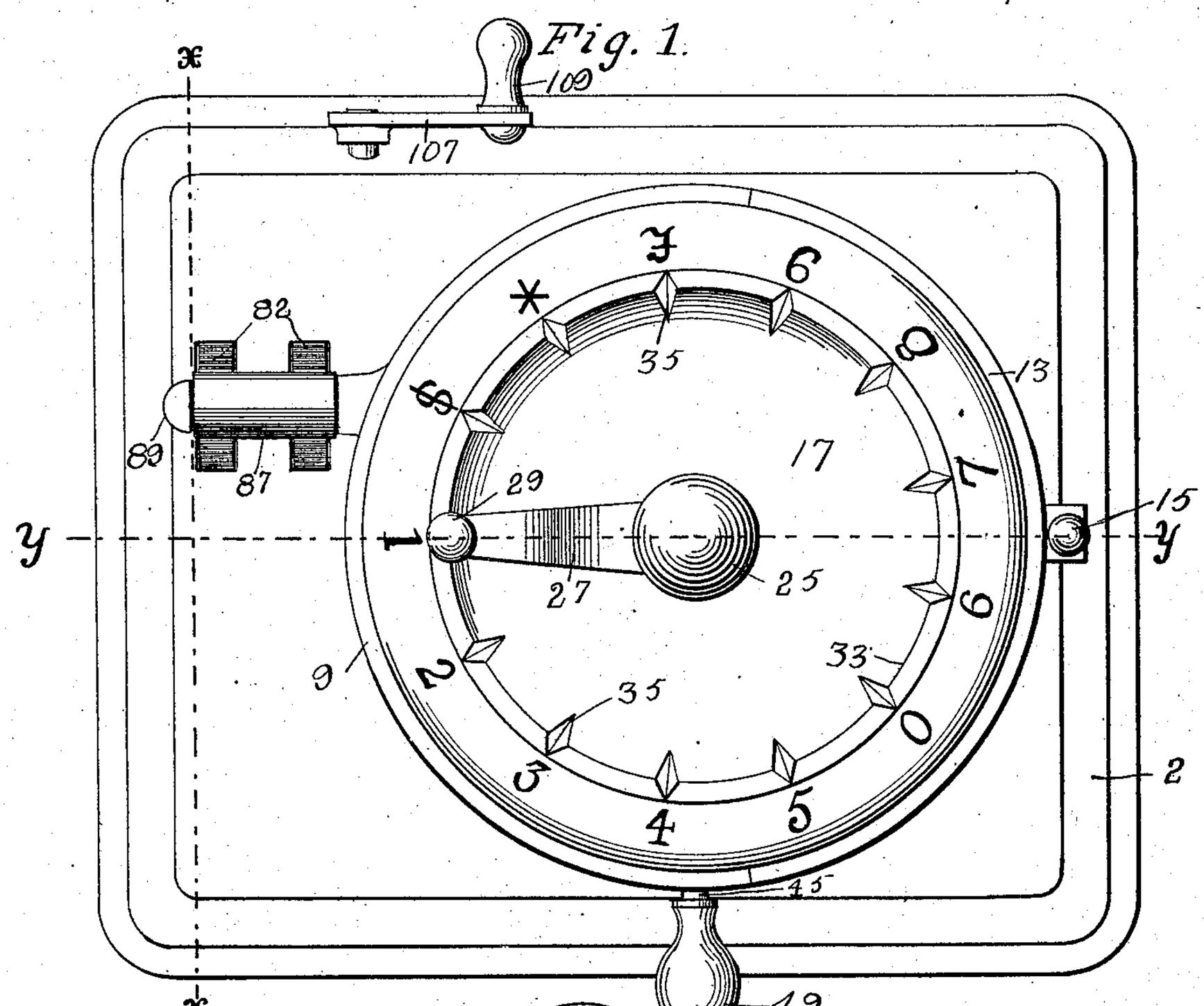


Fig. 8.

1 2
3 4
5 0

Fig. 2.

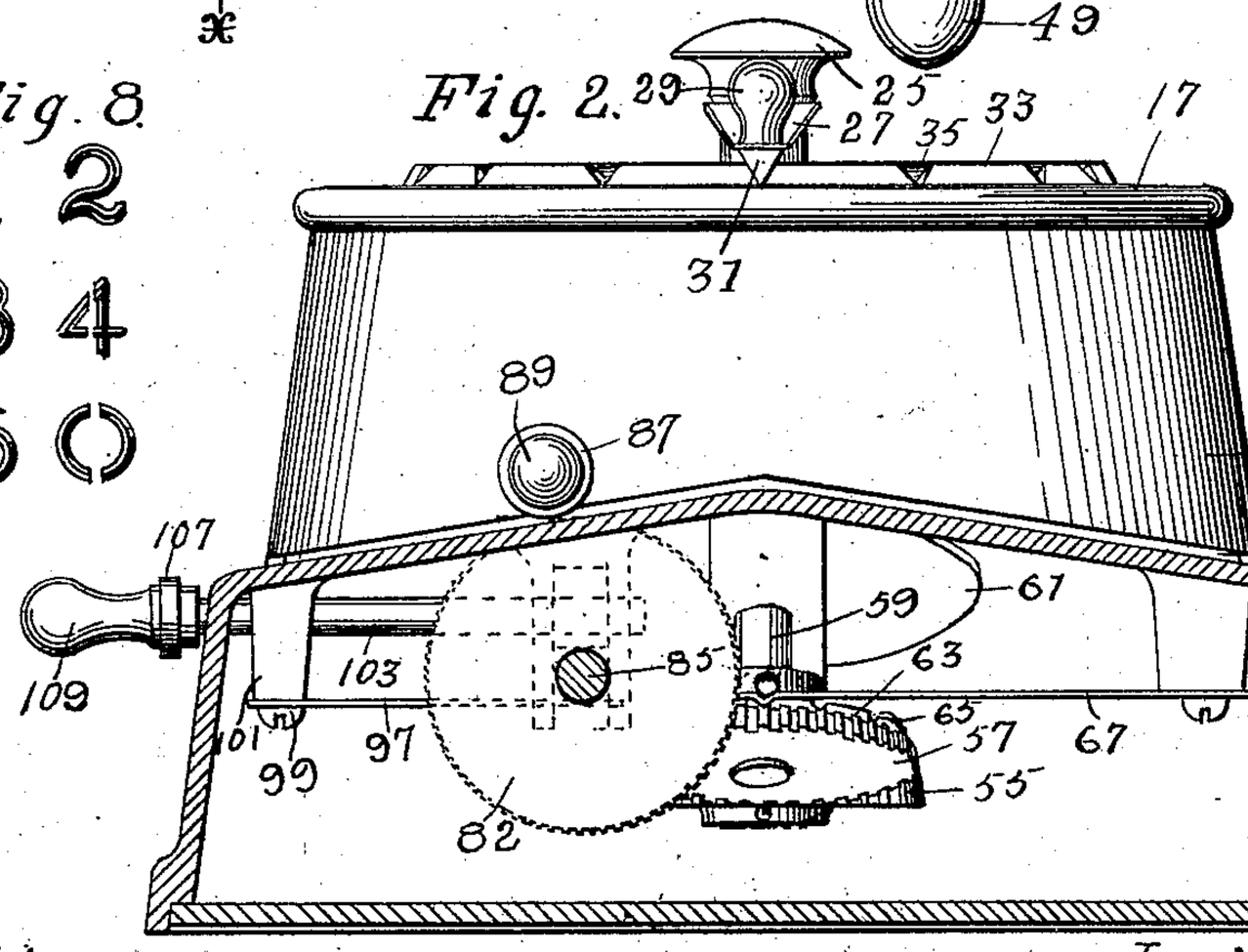


Fig. 9.

6 7
8 9
£ *
$

Witnesses
B. P. Shepherd
Richard Paul.

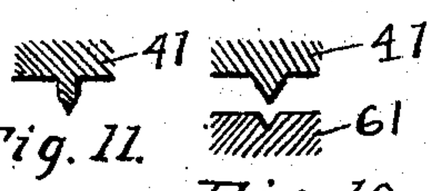


Fig. 11.

Fig. 10.

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(No Model.) 2 Sheets—Sheet 2.

# G. W. BEEBE.

## CHECK PROTECTOR.

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Fig. 12.

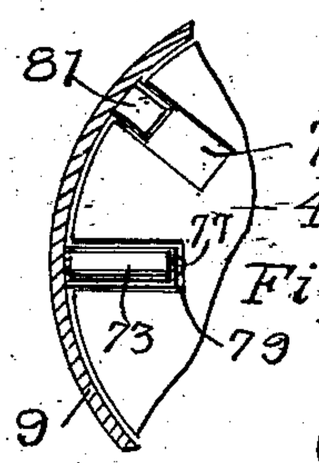



Fig. 3.




Fig. 5.

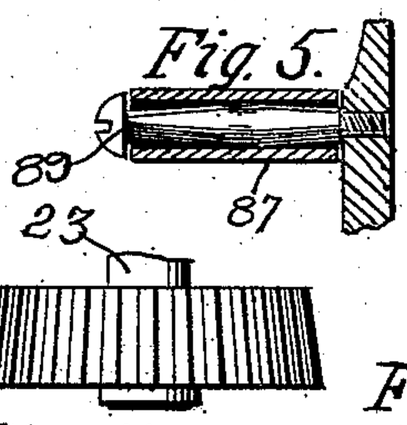



Fig. 13.

Fig. 6

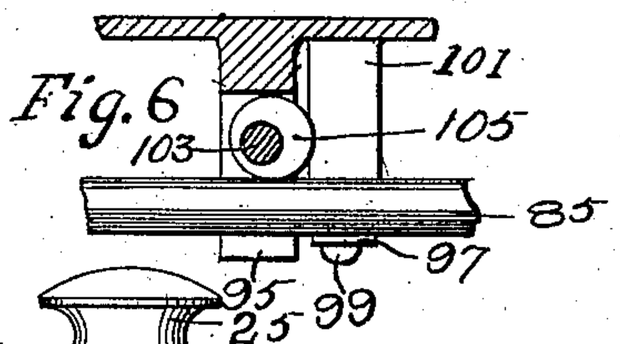



Fig. 7.

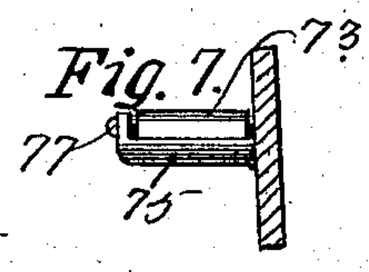
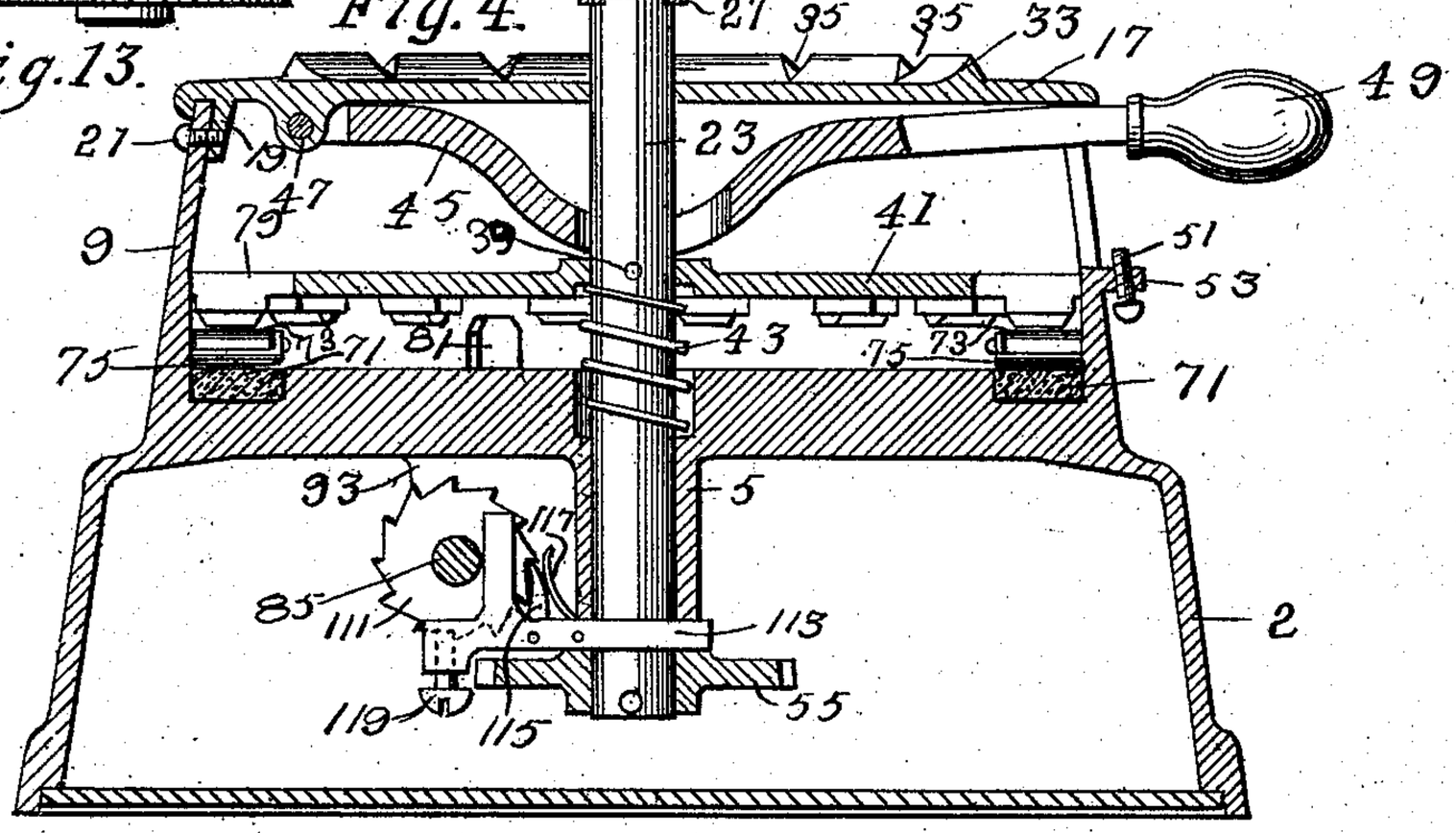



Fig. 4.




Witnesses.
B. F. Shepherd
Richard Paul.

Inventor
Gaylord W. Beebe
By Paul & Hawley
his Attorneys.

# UNITED STATES PATENT OFFICE.

GAYLORD W. BEEBE, OF MINNEAPOLIS, MINNESOTA.

## CHECK-PROTECTOR.

SPECIFICATION forming part of Letters Patent No. 576,999, dated February 16, 1897.

Application filed February 15, 1896. Serial No. 579,344. (No model.)

*To all whom it may concern:*

Be it known that I, GAYLORD W. BEEBE, of the city of Minneapolis, county of Hennepin, State of Minnesota, have invented certain new and useful Improvements in Check-Protectors, of which the following is a specification.

This invention relates to improvements in devices designed for marking checks, bonds, or other instruments with figures or characters in such a manner as to prevent them from being altered or "raised;" and the objects I have in view are to provide a simple machine which will puncture or break the paper on the proper lines to form the characters desired and will at the same time crush the fiber thereof and thoroughly ink it, making it impossible to change any figure or character that has been made upon the paper.

To these ends the invention consists generally in the constructions and combinations hereinafter described, and particularly pointed out in the claims.

In the accompanying drawings, forming part of this specification, Figure 1 is a plan view of a machine embodying my invention. Fig. 2 is a side elevation, partly in section, of the same, the section being taken on line *x x* of Fig. 1. Fig. 3 is a transverse vertical section on line *y y* of Fig. 1. Fig. 4 is a transverse vertical section taken on a plane at right angles to that of Fig. 3. Figs. 5, 6, and 7 are details. Figs. 8 and 9 are views showing one style of figures or characters that may be made by the machine. Figs. 10 and 11 are detail views showing the construction of the male and female dies. Figs. 12 and 13 are details of construction.

In the drawings, 2 represents the main frame or base part of the machine, which is of a suitable size to inclose the principal part of the mechanism and is preferably formed of metal and finished in any suitable or ornamental manner. This frame or base 2 is provided with the central vertical bearing or shaft-support 5 and preferably has a portion of its upper surface depressed on an inclined plane, as represented at 7 in Fig. 3. The depressed portion 7 is also provided with an opening at right angles to its surface to form the bearing for another shaft. Formed upon or secured to the top of the base 2 is the semicircular wall 9, at the lower edge of which, on the plane of the upper surface of the base 2, is the inclined slot or opening 11, which permits of the insertion and movement of the check or paper to be marked. A separate wall or semicircular plate 13 is provided, which, in connection with the wall 9, forms a circular chamber or casing for the die-plates, as hereinafter described. The wall 13 is preferably secured in position by means of the screw 15, though any other suitable device may be used for this purpose. The top plate 17 is provided, which has depending lugs 19, that project down within the walls 9 and 13 and are secured in position by the screws 21. A shaft 23 is mounted in the vertical bearing 5, formed in the casing 2, and extends above the plate 17 and is preferably provided at its top with an ornamental knob 25. A spring-arm 27 is secured to the shaft 23 above the plate 17, and the end of this arm is provided with a knob 29 and with the V-shaped catch 31, the knob being arranged upon the upper surface of the spring-arm 27 and the V-shaped catch on the lower surface. The plate 17 is provided with the rib 33, having a series of notches 35, and the surface of the plate is provided with figures or characters arranged opposite said notches for the purpose of showing the character that will be marked by the device when the spring-arm 27 is in such position that the catch 31 is in engagement with the corresponding notch 35 in the rib 33.

Arranged upon the shaft 23 and secured thereto, preferably by a pin 39, is the male-die plate 41. This plate is of circular form, with openings in the edge for the ink-rollers to pass, and is inclosed within the chamber formed by the walls 9 and 13, the plate 17, and the top of the base 2. A spring 43 surrounds the shaft 23 between the bearing 5 and the plate 41 and holds said shaft and die-plate in an elevated position. A lever 45 is pivoted to the under surface of the plate 17 at 47, as shown in Fig. 4, and extends across the chamber through the wall and is provided with a depressed portion bearing upon the upper surface of the die-plate 41, said depressed portion having an opening through it through which passes the shaft 23. The end of the lever extends through a slot in the wall 9 and is provided with a handle 49, by means of which it may be depressed. A

gage-screw 51 is arranged in a projection 53 upon the outer surface of the wall 9, and this screw forms an adjustable stop which limits the downward movement of the lever 45 and consequently of the die-plate 41. The lower end of the shaft 23 is provided with a suitable gear-wheel 55, secured thereto in any suitable manner, and this wheel meshes with an inclined gear-wheel 57, arranged upon the inclined shaft 59, which is mounted in an opening or bearing formed in the inclined part 7 of the base 2. The upper end of the shaft 59 carries the female-die plate or disk 61. The gear-wheel 55 may have a narrow face, as shown in Fig 4, in which case the gear-wheel 57 will be provided with the rib 63, having the notches 65, adapted to be engaged with the spring-stop 67, so that when the shaft 23 is depressed and the gear-wheel 55 brought out of engagement with the gear-wheel 57 the shaft 59 will be prevented from turning by said stop engaging one of said notches in the rib 63; or said gear-wheel 55 may have a wider face, as shown in Fig. 13, in which case, when the shaft 23 is depressed, the gear-wheel 55 will at all times remain in engagement with the gear-wheel 57, in which case the spring-stop and the notched rib may be dispensed with.

The female-die plate or disk 61 consists of a circular plate or wheel having upon its inclined upper surface a series of female dies corresponding to the male dies upon the plate 41.

The construction of the male and female dies is illustrated in Figs. 10 and 11 of the drawings, the male die being formed by a ridge or V-shaped rib and the female die being formed by a corresponding depression in the plate or disk 61. The depth of the rib forming the male die is preferably greater than the depth of the groove constituting the female die, so that the two die-plates do not come together, thereby preventing the paper from being pressed and marked between the two flat surfaces of the plates. The ribs forming the male dies are not continuous, but are provided with transverse grooves or openings, as shown in Fig. 8, to receive transverse partitions provided on the face of the female dies. With this construction a portion of the paper between the dies will not be effected by either the male or female dies, and will form a support for that portion of the paper that is crushed when the dies come together.

There are of course as many female dies in the plate or disk 61 as there are male dies upon the plate 41, and the shafts 59 and 23 are so geared together that the movements of the two die-plates correspond, and whenever the shaft 23 is in operative position, with the spring-catch 31 in engagement with one of the notches in the rib 33, the male die corresponding to the character opposite the notch with which said catch is in engagement will be directly over the corresponding female die, so that by depressing the lever 45 a character will be formed in the check or other paper projecting through the slot 11. The shape of the dies is such that the paper is broken rather than cut, and the fiber of the paper is crushed, so that the male die being properly supplied with ink the characters will be so inked that the ink will come in contact with the crushed and broken fiber of the paper and it will be impossible to remove it.

I also provide means for feeding the check or other paper for the purpose of properly spacing the characters formed thereon, and also means for inking the male dies upon the plate 41. For the purpose of inking the male dies I provide in the upper surface of the casing 2 a depression within which is arranged an inking-pad 71, with which a number of male dies come in contact at each depression of the shaft 23. Ink may be supplied to this pad in any suitable manner. I also provide a series of rolls 73, preferably arranged in the troughs 75, that are secured upon the inner surface of the walls 9 and 13 by means of a screw 77. Ink may be supplied to the trough 75, and the rolls 73 are so arranged as to come in contact with the surfaces of the male dies as the die-plate 41 is rotated. Thereby two means are formed for inking the dies, these being the inking-pad, by which the ink is supplied to the dies as the die-plate is depressed, and the inking-rolls 73, by which ink is supplied to them as the die-plate is rotated. These rolls also serve to evenly distribute the ink upon the surfaces of the male dies. The die-plate 41 is provided at its edge with openings 79, which pass over the inked rolls 73 in the trough 75 as the die-plate is depressed. The wall 9 is also provided with a guide-rib 81, and the plate 41 is provided with corresponding notches 79, which, after the plate is partially depressed, engage said guide-rib and thereby prevent any rotation of the plate while it is being further depressed.

A shaft 85, provided with the feed-rolls 82, is arranged within the base 2, the upper edges of the feed-rolls projecting through slots in the top of the base 2 directly beneath the stationary roller 87, mounted upon a stud 89, that is secured in the wall 9. The stud 89 preferably tapers from its central portion toward each end, as shown in Fig. 5, and the roller 87 has an opening substantially equal in diameter to the diameter of the largest part of the stud 89, thus permitting the roll 87 to have a slight rocking motion upon the stud 89, permitting it to accommodate itself to any irregularities or variations in thickness in the paper being operated upon. The opposite end of the shaft 85 is mounted in a stationary bearing in the projection 93, formed upon the base 2, (see Fig. 4,) and this bearing permits the outer end of the shaft 85 to be slightly depressed. The shaft 85 also passes between the two lugs 95, (see dotted lines in Fig. 2,) and the spring 97, secured by a screw 99 upon a lug 101, formed upon

or secured to the base 2, engages the under surface of the shaft 85 and holds it in an elevated position, in which position the surfaces of the wheels 82 are in engagement with the under surface of the roll 87. A shaft 103 is mounted in the base 2, its inner end being arranged in bearings in the lugs 95, and upon said shaft and between said lugs is provided a cam 105, (see Fig. 6,) and this cam engages the upper surface of the shaft 85. The outer end of the shaft 103 is provided with a crank 107 and with a knob or handle 109. By turning the shaft 103 the cam 105 causes the shaft 85 to be depressed against the tension of the spring 97, and thereby causes the wheels 82 to be depressed, so as to be moved away from the surface of the roll 87. This is done for the purpose of permitting the check or other paper to be inserted between the rolls 82 and 87. After the check is inserted the shaft 103 is turned to its former position and the spring 97 forces the feed-rolls 82 into engagement with the under surface of the paper, which is then firmly held between the rolls 82 and 87. The rolls 82 are preferably formed upon a single hub, which is secured to the shaft 85 by means of the set-screw 80, as shown in Fig. 3. The shaft 85 is also provided at a point near its inner end with the ratchet-wheel 111, and a collar 113 upon the lower end of the shaft 23, above the gear-wheel 55, carries a pivoted dog 115, arranged to engage the teeth of said ratchet-wheel, said dog being held in position by a spring 117. Said collar 113 is provided with the vertical projections 114, that engage the sides of the wheel 111 and prevent the collar 113 from turning with the shaft 23. The collar 113 is also provided with the screw 119, that is arranged to engage said ratchet-teeth when the shaft 23 has nearly reached the limit of its upward movement. This screw forms a stop for the wheel 111 and prevents said wheel from moving too far at each operation of the shaft 23, thereby preventing the ratchet-wheel from moving forward more than one tooth at each stroke of the lever, and causes the check or other paper to be advanced the same distance at each upward movement of the shaft 23.

With this device the check or other paper will be plainly and clearly marked, the figures or other characters being formed by depressions in the paper, and the fiber of the paper in which such depressions are made will be crushed and broken, so that it will receive and hold the ink and prevent its being erased or removed. The check will therefore be indelibly marked in a manner which will absolutely prevent its being altered or erased.

As the slot through which the check is inserted is downwardly inclined in both directions from the central point where the dies come together, the upper surface of the paper is kept clear of the male dies on the upper or large die-plate that are located on either side of the one that is in engagement with the female dies.

It will be understood that many of the details of the construction herein shown and described may be varied or altered without departing from my invention.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. Means for marking checks or other papers, comprising male dies consisting of wedged-faced ribs forming the outlines of figures or other characters, corresponding female dies, means for bringing said dies together and thereby crushing the fiber of the paper between said male and female dies upon lines forming the desired characters, and means for inking said dies, substantially as described.

2. In a check-protector, the combination, with male dies provided with a rib corresponding to the outline of a figure or character and having a **V** or wedge shaped face, of a female die provided with a corresponding groove or depression, and means for moving one of said dies against the other, whereby the fiber of the paper will be crushed on a line or lines corresponding to the outline of said figure or character.

3. A check-protector, comprising revoluble disks or plates provided with corresponding male and female dies, said disks or plates being mounted upon converging axes, whereby when moved together said disks or plates engage at a single point, and means for moving one of said disks or plates toward the other.

4. The combination, with a die-carrying disk or plate, of a second die-carrying disk or plate, arranged at an inclination with respect to the first-mentioned disk, said second plate or disk having a beveled surface which at the point of engagement of the two disks when forced together will be parallel to the first-mentioned disk or plate.

5. The combination, in a check-protector, with the vertically-movable shaft and the die-plate secured thereto, of the spring-arm secured to the upper end of said shaft, a raised rib provided with a series of notches, said rib being arranged concentrically, and a catch upon said arm adapted to engage any one of said notches, for the purpose specified.

6. The combination, with the casing, having a cover provided with the rib 33 having the series of notches 35, letters or characters marked upon said cover opposite said notches, the revoluble and vertically-movable shaft 23, the die-plate carried by said shaft, the spring-arm 37 secured upon said shaft and provided with the catch 31 and with the knob or handle 29, for the purpose specified.

7. The combination, with the casing, of the revoluble and vertically-movable shaft mounted in said casing and carrying the die-plate 41, the lever 45 pivoted within said casing and bearing upon said die-plate, and provided with an opening through which said shaft passes, and with a handle extending out-

side of the casing of the machine, for the purpose specified.

8. The combination, with the revoluble and vertically-movable shaft, carrying the die-plate provided with a series of dies, of the lever 45 through which said shaft passes, said lever extending outside of the casing, and the adjustable stop 51 for regulating the throw of said lever.

9. The combination, with the rotatable and vertically-movable shaft, of the die-plate secured thereon and carrying on its under surface a series of dies, and provided in its circumference with a series of slots or openings 79, the inking-rollers 73, and the inking-pad arranged below said rollers 73, whereby said dies are inked by said pad at each depression and at each revolution of the die-plate the dies are further inked and the ink on the dies is evenly distributed by said rollers.

10. In a check-protector, the combination, with the male dies formed of ribs having transverse grooves or openings, and female dies having grooves corresponding to said ribs, and having transverse partitions corresponding to the transverse grooves or openings in the ribs forming the male dies.

11. The combination, with the dies and the check-feeding mechanism, comprising the shaft 85 and the ratchet-wheel 111, of the revoluble and vertically-movable shaft 23, the collar 113 secured upon said shaft and carrying the dog 115, said collar being also provided with an arm or lug projecting upon opposite sides of said wheel 111, whereby said collar 113 is caused to remain stationary while the shaft 23 is rotated.

In testimony whereof I have hereunto set my hand this 12th day of February, A. D. 1896.

GAYLORD W. BEEBE.

In presence of—
A. C. PAUL,
RICHARD PAUL.