

No. 631,024.

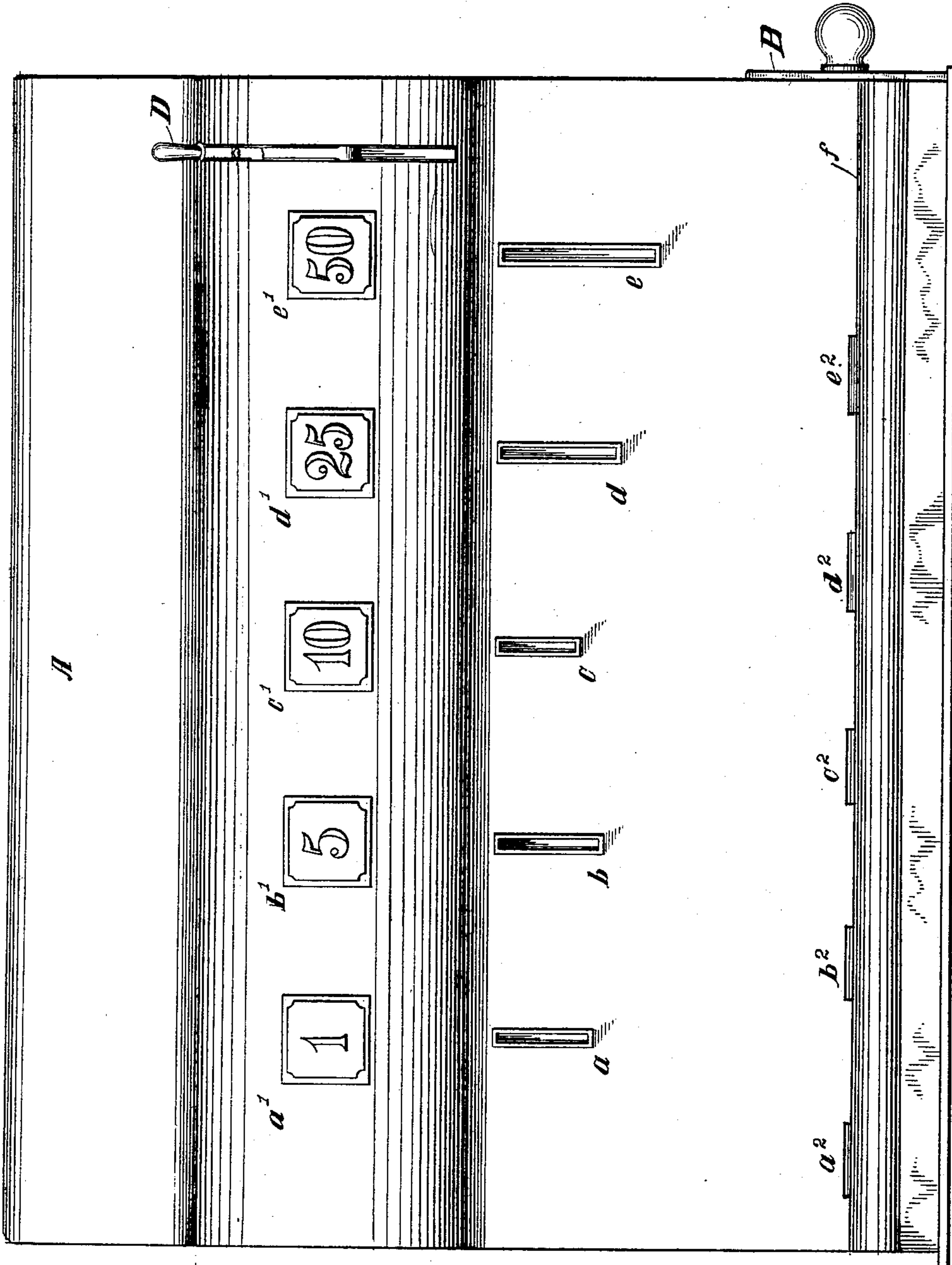
Patented Aug. 15, 1899.

M. C. MENGIS.  
MECHANICAL DEPOSITORY.

(Application filed Sept. 10, 1898.)

(No Model.)

3 Sheets—Sheet 1.



WITNESSES:

*Fr. N. Roehrich*  
*R. F. Sweeney*

Fig. 1.

INVENTOR

*Morris C. Mengis*

BY *M. H. Appleton*,

ATTORNEY





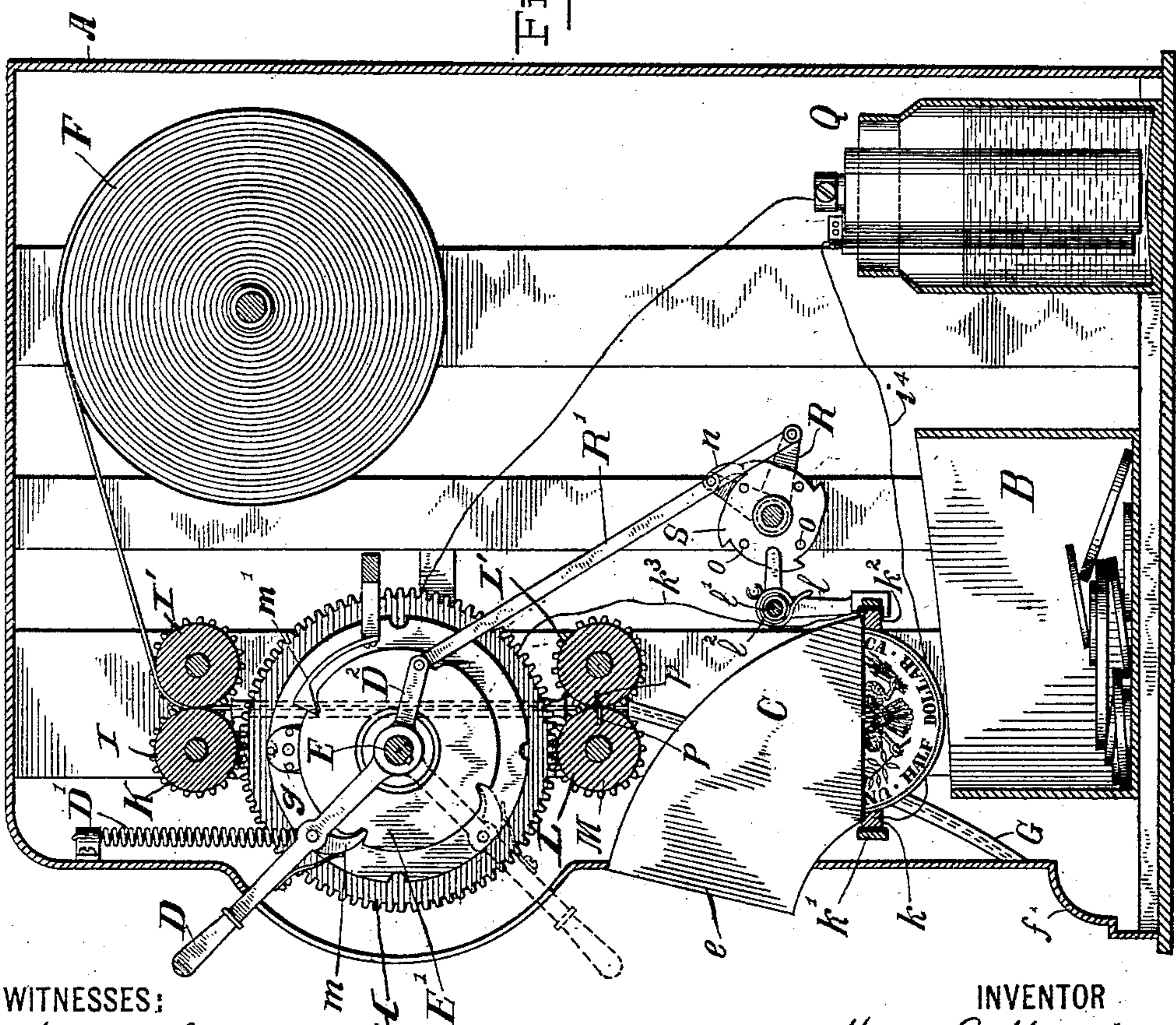
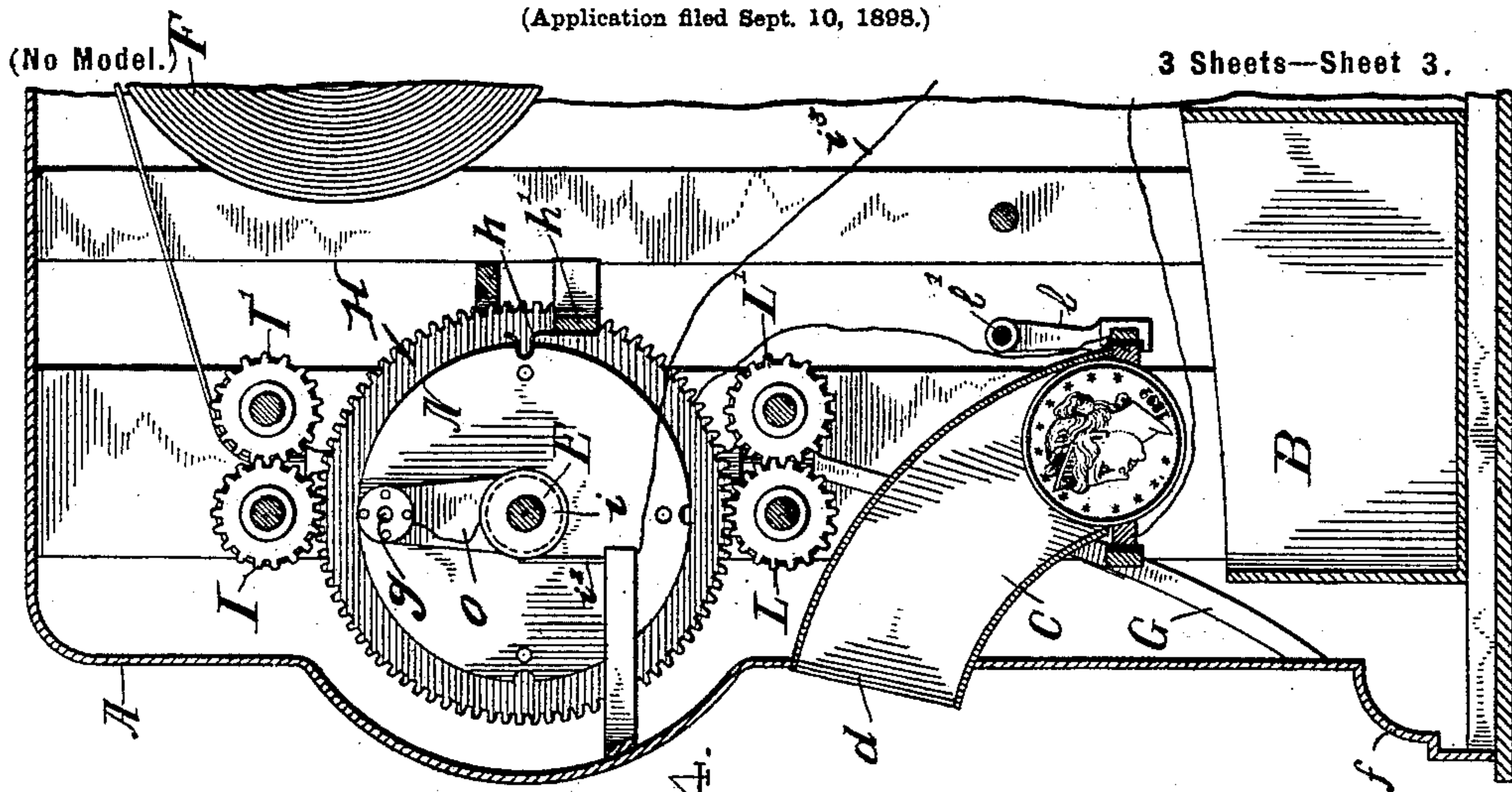
No. 631,024.

Patented Aug. 15, 1899.

M. C. MENGIS.  
MECHANICAL DEPOSITORY.

(Application filed Sept. 10, 1898.)

3 Sheets—Sheet 3.



WITNESSES:

*Fr. V. Roebuck*  
*A. V. Smeny*

INVENTOR

*Morris C. Mengis*

BY *N. H. Hutton*

ATTORNEY



# UNITED STATES PATENT OFFICE.

MORRIS C. MENGIS, OF NEW YORK, N. Y.

## MECHANICAL DEPOSITORY.

SPECIFICATION forming part of Letters Patent No. 631,024, dated August 15, 1899.

Application filed September 10, 1898. Serial No. 690,627. (No model.)

*To all whom it may concern:*

Be it known that I, MORRIS C. MENGIS, a citizen of the United States, and a resident of New York, (Brooklyn,) in the county of Kings and State of New York, have invented certain new and useful Improvements in Mechanical Depositories, of which the following is a full, clear, and exact specification.

My invention is chiefly designed for use in coöperation with savings banks to receive the smaller deposits as made by children or others preparatory to their deposition in the bank and passing to the credit of the depositor upon the books of the institution, although, as will be obvious, the improved device may be employed in coöperation with charities and other institutions to receive contributions or payments which may be made thereto, the object of the invention being to provide or produce a simple, reliable, and convenient mechanical depository for the above-named purposes which in addition to receiving the money that may be deposited shall automatically return to the depositor a receipt for or other acknowledgment of the exact amount contributed, paid, or deposited.

To accomplish the aforesaid object and to secure other and further advantages in the matters of construction, operation, and use, my invention consists, first, in a suitable receptacle for the coin or other deposit made in the machine and in the employment, in connection with such receptacle, of devices through which a receipt for or other acknowledgment of the deposit thus made will be returned to the depositor; second, in the peculiarities of construction of the mechanism through which the receipt for or other acknowledgment of the deposit made is returned to the depositor and the amount or character of such receipt or acknowledgment thus given determined by the action of the particular deposit, and, third, in various subordinate constructions and combinations or arrangements of parts, all as will hereinafter more fully appear.

Referring to the accompanying drawings, which form a part of this specification, Figure 1 is a front elevation showing my improved machine as it appears when ready to receive deposits; Fig. 2, a vertical sectional elevation taken in a plane parallel with that

of Fig. 1, cutting through the case, through the lower ends of the coin-chutes, and through the money-drawer and showing the working parts in elevation. Fig. 3 is a transverse sectional elevation of the machine, taken in the plane  $xx$  of Fig. 2; and Fig. 4 is a similar transverse sectional elevation of the front portion of the machine, taken in the plane  $yy$  of that figure.

In all the figures like letters of reference are employed to designate corresponding parts.

A indicates the exterior case, which is or may be made of metal or other appropriate material and of any size and design desired, according to the circumstances of use.

B indicates the cash-drawer or receptacle for receiving the deposited coins, the same being preferably secured in place in the casing so as only to be opened by authorized persons.

In the front of the casing are several separate and distinct slots, as at  $a b c d e$ , of sizes corresponding to the ordinary coins in circulation where the apparatus is used, and over these slots or in other proper relation thereto are appropriate figures, as at  $a' b' c' d' e'$ , or other indicia showing in which particular slot a coin of special value should be entered. Narrow openings are also provided in the casing, as at  $a^2 b^2 c^2 d^2 e^2$ , one for each coin-slot, to permit of the issuing from the casing of the printed receipt for or other acknowledgement of the deposit, which it is one purpose of my improvement to supply. These last-named openings may be placed at any convenient part of the casing; but their arrangement over a slight projection or rounding-out of the casing, as at  $f$ , will be found convenient and advantageous. From each coin-slot a narrow chute or conductor leads inward and over the position of the cash-drawer to deliver the coins therein, and each of these chutes is supplied at the delivery end with means for arresting the deposited coin and causing the actuation of corresponding mechanisms. The coin-chutes are alike except as to size and location, and they are indicated by the letters C C, &c.

When a coin is deposited and arrested at the inner end of the coin-chute, there it will remain until the lever D is depressed to effect the release of the coin into the cash-drawer



and the delivery of the receipt or other acknowledgment. The lever D projects through the casing at a point within convenient reach of the depositor and is coupled with and moves  
 5 a main shaft E, on which are mounted the gears and clutches, together with the electric conducting-disks to be hereinafter described.

The receipts or acknowledgments are printed on strips of paper, which are to be fed forward from rolls, as F F, cut or separated at the proper instant and delivered one at a time through the corresponding openings before mentioned out of or down through suitable conducting-tubes, as G G. These conducting  
 10 tubes and rolls, as well as the mechanical means by which the reception and delivery are governed, are substantially similar for each coin-slot, so that a detailed description of one set will answer for all.

Gears, as H, are loosely mounted on the shaft E and mesh above with pinions I, which carry one of a set of feed-rolls K, and below with pinions L, which carry one of a set of delivering and cutting rolls M. The pinions I  
 20 mesh with corresponding pinions I', and the pinions L in like manner mesh with corresponding pinions L', carrying, respectively, the matching feed and the matching cutting and delivery rolls. The effect of this arrangement of gearing is to make the several  
 25 rolls revolve in equal times and in equal degrees, as is necessary for the proper feeding and cutting of the printed slips.

Beside the gears H are mounted loosely on shaft E disks N, and beside these latter are  
 35 arms O, which are keyed to the shaft and movable therewith. Each arm O carries a solenoid P, of which the core *g* constitutes a locking-pin that is arranged when properly advanced to  
 40 pass through a perforation provided for the purpose in the disk N and to enter a perforation in the gear H, thereby locking the arm and the gear together and constituting a positive clutch between these parts. The core *g*  
 45 is held normally out of working position by any light springs, as *g'*, the same being easily overcome as soon as the solenoid is energized, and the core thereby compelled to move forward. The disks N are shown as perforated  
 50 at four points for the passage of the locking-pins, and each disk is supplied with a simple form of detent, as at *h*, to enter notches in the disk, and thereby hold the same against any backward turning upon the shaft, as  
 55 might result if such provision were not made. These detents are sustained upon bars *h'*, which maintain them in proper working position.

Upon shaft E alongside of the arms O are  
 60 small electric conducting-disks *i i'*, the former being insulated from the latter and from shaft E, as indicated by the darkened portions, with the latter in electric connection with the arms O.

65 Q indicates an electric-battery cell of any ordinary or approved construction, one pole of which is connected, through conductor *i*<sup>3</sup>

and its several branches, with the brushes that bear upon the disks *i*, while the other pole is connected with the brushes that bear  
 70 upon the disks *i'*, and thus, through these disks, with the windings of the solenoids, as plainly indicated.

At the delivery-mouths of each of the coin-chutes C are fixed on one side immovable  
 75 conducting-pieces *k*, the same being located and arranged in such a position with respect to the forward edge of the chute that the coin which may be deposited must of necessity bear against the corresponding piece when it  
 80 reaches the position at which it is arrested, and all these conducting-pieces are connected with the other pole of battery Q through a conductor *i*<sup>4</sup> and suitable branches. For convenience of construction the pieces *k* are  
 85 preferably mounted upon a bar *k'*, from which they are appropriately insulated, the bar being affixed to the casing at each of its ends. Opposite the location of the pieces *k* are mounted the movable pieces *k*<sup>2</sup>, and these  
 90 are in electric connection with their corresponding solenoids through the branches *k*<sup>3</sup>, brushes *k*<sup>4</sup>, disks *i'*, and arms O. The pieces *k*<sup>2</sup> are sustained by bell-crank levers *l*, from which they are insulated, and these levers  
 95 swing upon a rod, as *l'*, or they may be otherwise mounted to swing, as may be required. The bell-cranks are normally held with their respective pieces *k*<sup>2</sup> in position to obstruct the delivery ends of chutes C, whereby to ar-  
 100 rest the deposited coin and hold it until purposely released by the further operation of the machine by a coiled or other spring *l*<sup>2</sup>. The coin being held as above explained completes the metallic circuit between the bat-  
 105 tery and the corresponding solenoid, and thus through the coöperating mechanisms effects the clutching of the corresponding gear H to the exclusion of all the others, as will appear from a consideration of the construction and  
 110 operation before explained.

The lever D moves the shaft E through the medium of a spring-actuated dog *m*, which is arranged to engage the notches in a disk E', keyed upon said shaft, the lever being re-  
 115 turned to its original position after having been depressed by a suitable spring D' and the disk E' being restrained from any backward turning by a detent-spring, as *m'*.

Connected with lever D is an arm D<sup>2</sup>, serving to rock a bell-crank R through the medium of a suitable connecting-rod R', and bell-crank R is supplied with a pawl *n* to en-  
 120 gage the notches in a disk S. This last-named disk is for the purpose of effecting the release of the coin at the proper time, which it accomplishes by means of pins *o o*, arranged to strike the horizontal arm of the bell-crank *l* as such disk is rotated from the lever D.

From the foregoing it will be plain that  
 130 whenever the lever D is pulled down and released the arm D<sup>2</sup> will rock the crank R, and thus cause one of the pins *o* to rock crank *l* by its contact therewith, and thereby carry



the piece  $\frac{1}{2}$  away from the mouth of chute C, thus releasing the coin, which is then free to enter the cash-drawer by its own gravity, and interrupting the electric circuit, the result of which will be to permit of the solenoid-core being returned to its normal open unclutching position by the action of its retracting-spring. At the same time that the hand-lever is depressed the gear-and-pinion connections will force the feeding forward of a suitable portion of the printed strip. The proper length thereof to constitute a receipt or other acknowledgment is cut off by the blades  $p p$ , with which rollers M are supplied, and the severed portion drops out through tube G ready to the hand of the depositor. The hand-lever being then released is automatically returned to its normal position, and the machine and all its parts made ready for the next deposit, and so on.

The pins  $o$  correspond in number with the notches in the disk S, which latter are the same in number as those in the disk E', and the angle of the arm D<sup>2</sup> with lever D is such that the limited travel of the said lever will be just sufficient to compel one of the pins  $o$  to trip and pass the horizontal arm of crank  $l$ ; but any other suitable relative numbers and proportions of parts may be employed.

As the machine provides for the deposit of one coin, so it does for all. It is simple of construction, reliable in operation, not liable to get out of order, and withal well calculated to answer all the purposes or objects of the invention herein alluded to.

Besides receiving deposits which are to be aggregated and then transferred to the banking institution with manifest advantage to all concerned in the transaction the improved device may be utilized for receiving charitable or other contributions, to deliver tickets of various values according to the particular coin deposits, or for any like or similar purpose to which its mechanisms will lend themselves without change in character or principle, all of which is contemplated by my invention without further specification in that regard.

Having now fully described my invention, what I claim as new therein, and desire to secure by Letters Patent, is—

1. In a mechanical depository, the combi-

nation, with each of the separate coin-chutes, of a stationary and a movable piece arranged to complete an electric circuit with the clutching mechanism by the intervention of a coin between the two pieces, substantially as and for the purposes set forth.

2. In a mechanical depository, the combination, with a shaft, a gear arranged upon such shaft to be operated through the medium of a projecting hand-lever, of a solenoid and its core, constituting a clutch between the gear and shaft, said clutch being brought into action only upon the deposit of a coin to complete the electric circuit, substantially as set forth.

3. In a mechanical depository, the combination of the main shaft carrying the several gears, the arms mounted on said shaft and provided each with a solenoid the core of which is arranged to be engaged with the corresponding gear, a source of electric energy, and means for completing the electric circuit in which the solenoid is located by the intervention of a coin therein, substantially in the manner and for the purposes set forth.

4. The combination, with the hand-lever having a projecting crank-arm, of a notched disk carrying pins, a bell-crank for moving said disk, a coupling-rod connecting the said crank-arm and the bell-crank, and the bell-crank carrying one of the contact-pieces in the electric circuit, the last-named crank being arranged to be moved by the pins on the disk, substantially in the manner and at the times specified.

5. In a mechanical depository, a battery-cell, means for arresting the deposited coin at the inner mouth of a coin-chute, means for releasing the coin, a gear for actuating the feed and cutting rolls for the printed strip, an electrically-operated clutch mounted on an arm, connections for actuating the clutch, a hand-lever, and means for connecting the same with the shaft which carries the gear and clutch, substantially as shown and described.

In witness whereof I have hereunto set my hand this 9th day of May, 1898.

MORRIS C. MENGIS.

Witnesses:

J. N. WALTERS,  
R. F. SWEENEY.