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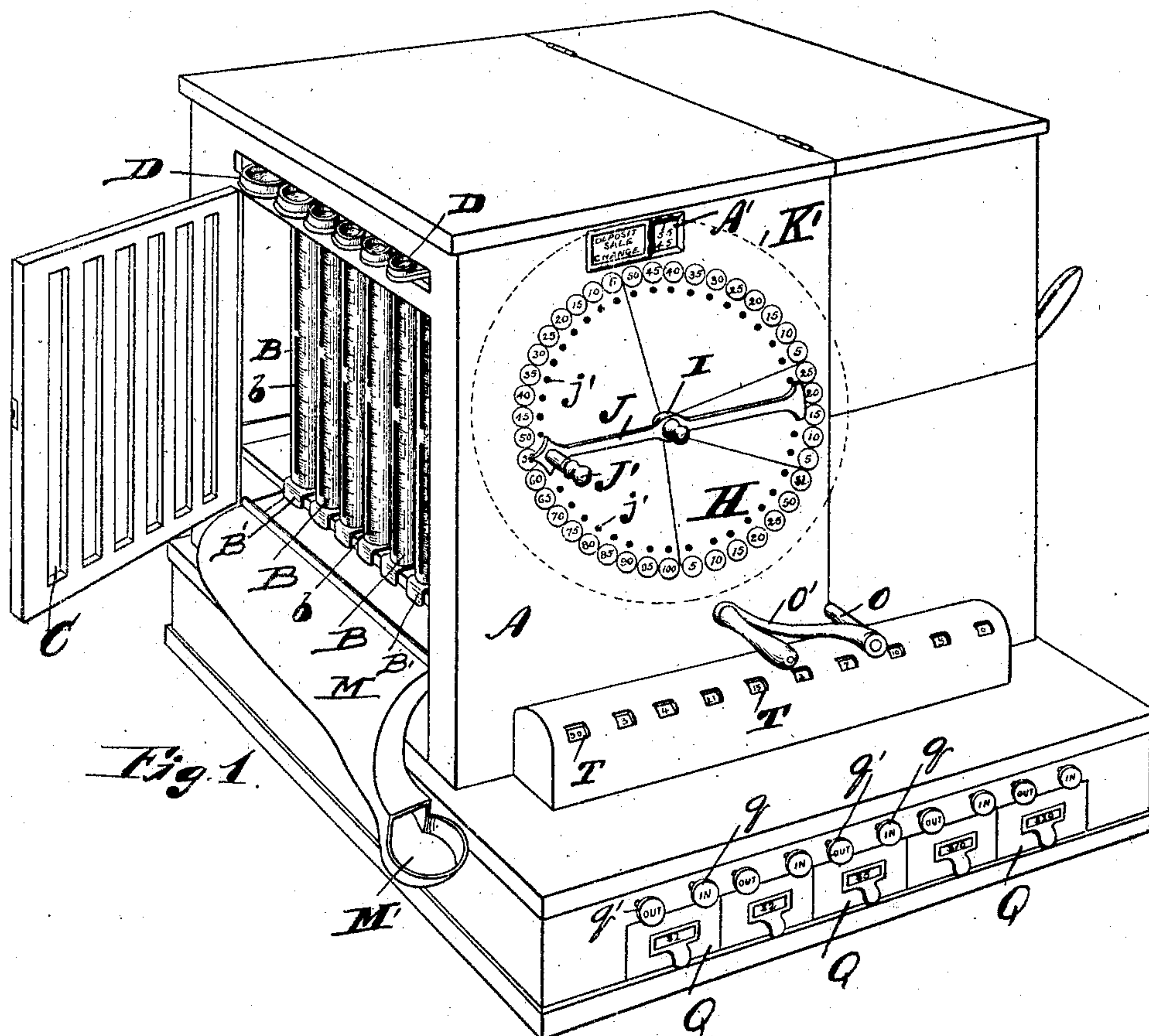
PATENTED AUG. 27, 1907.

J. F. DREDGE.

CHANGE MAKER AND REGISTER.

APPLICATION FILED JUNE 9, 1906.

4 SHEETS—SHEET 1.



*Fig. 9.*

[illegible]

WITNESSES:

Henry C. Villers  
Lewis E. Anders

Fig. 10.

INVENTOR.

INVENTOR.  
Joseph F. Dodge  
P. O. Thomas

~~Mormons~~

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4 SHEETS—SHEET 2.

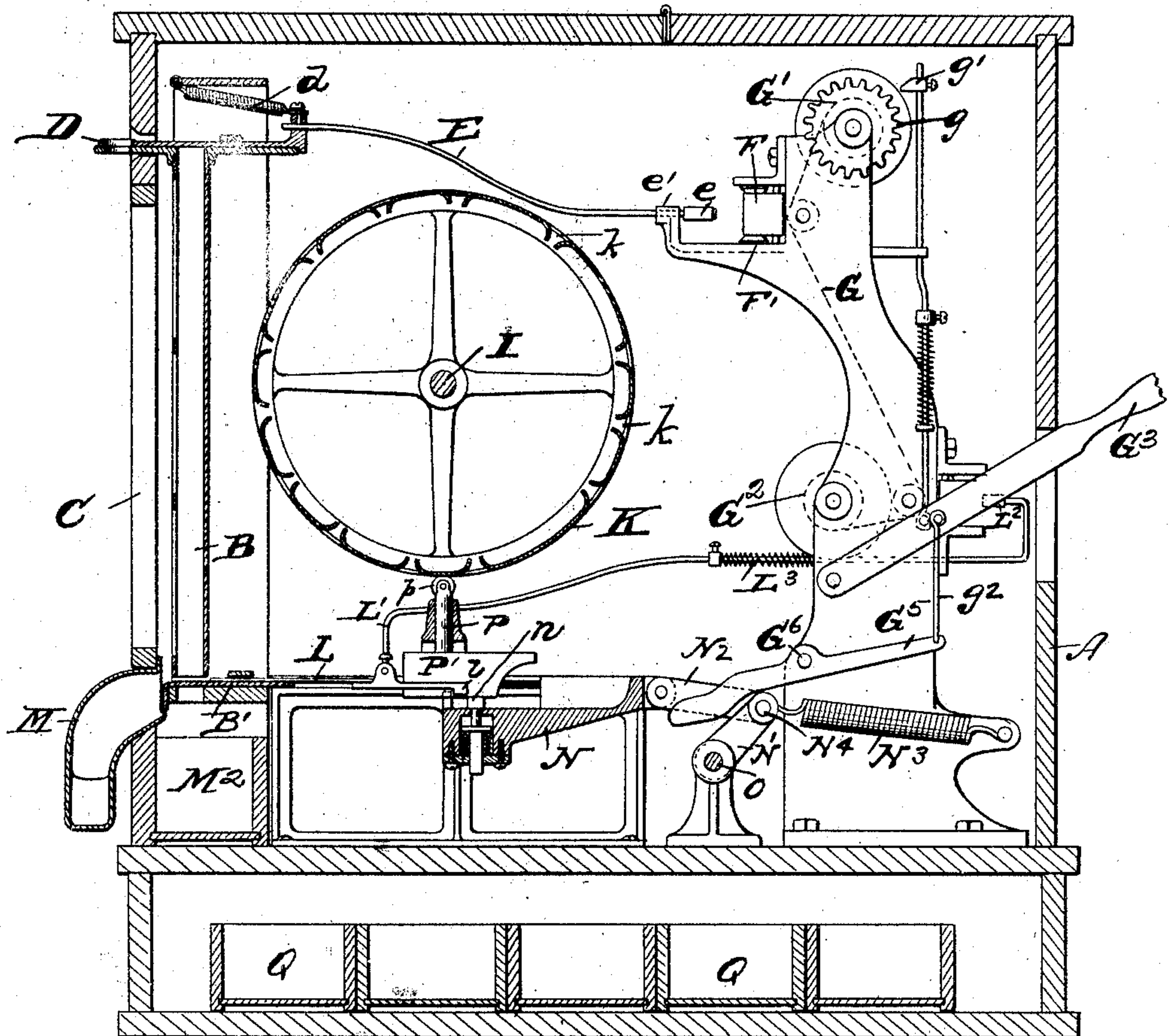


Fig. 2.

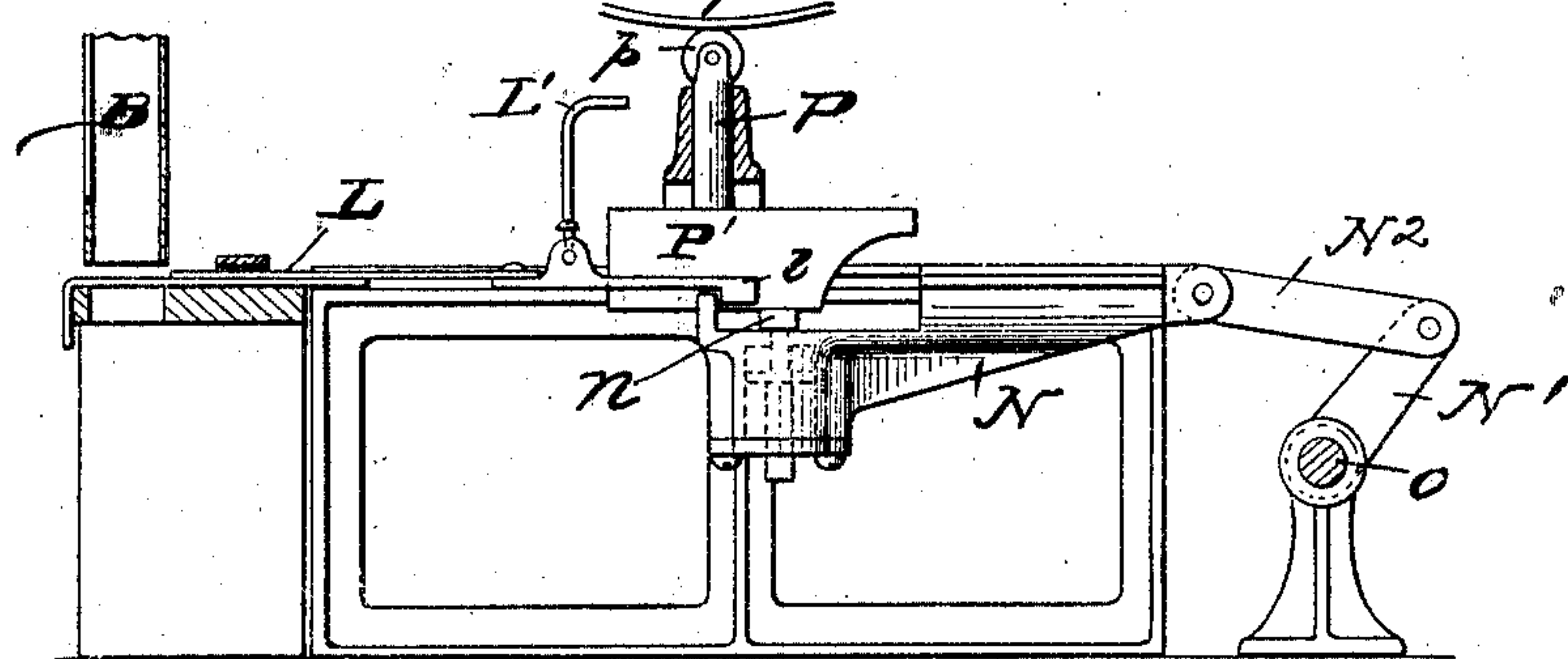


Fig. 5.

WITNESSES:

Henry C. Vallerot  
Lewis C. Planders

INVENTOR  
Joseph F. Dredge

By J. B. Thomas

Attorney



No. 864,457.

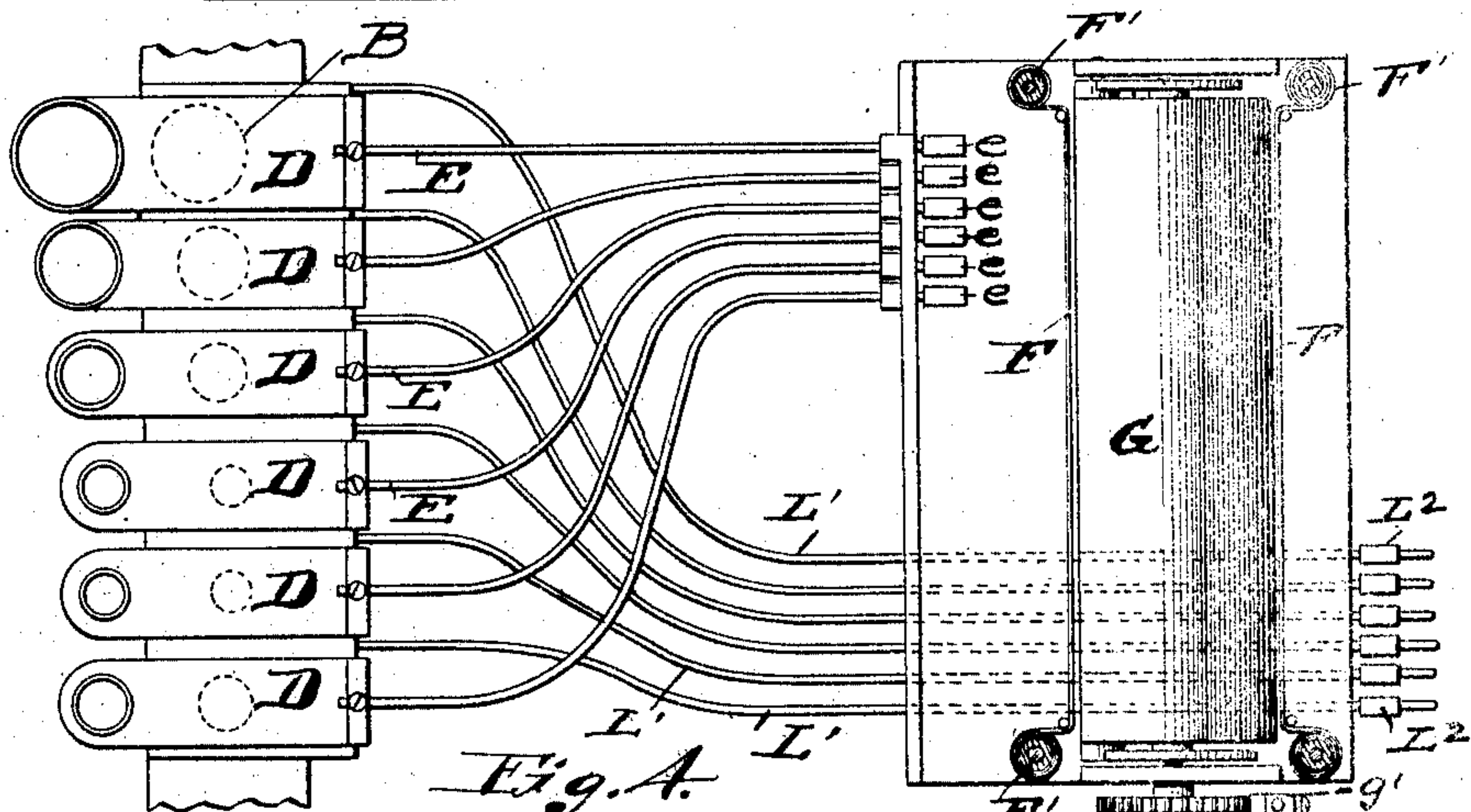
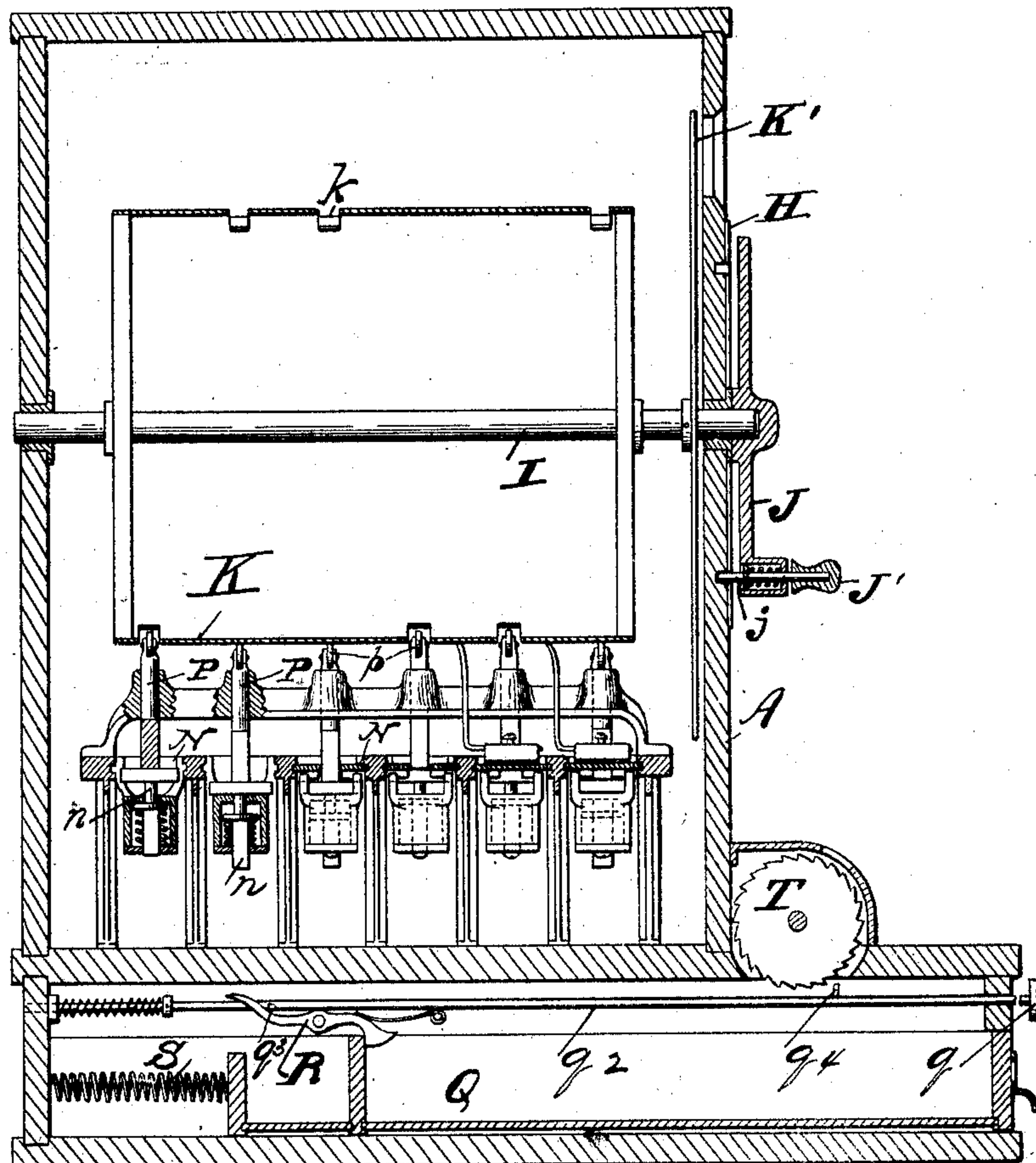
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4 SHEETS—SHEET 3.

Fig. 3.



WITNESSES:

Henry L. Villerot  
Lewis E. Flinders

INVENTOR  
Joseph F. Dredge  
By B. Thomas  
Attorney

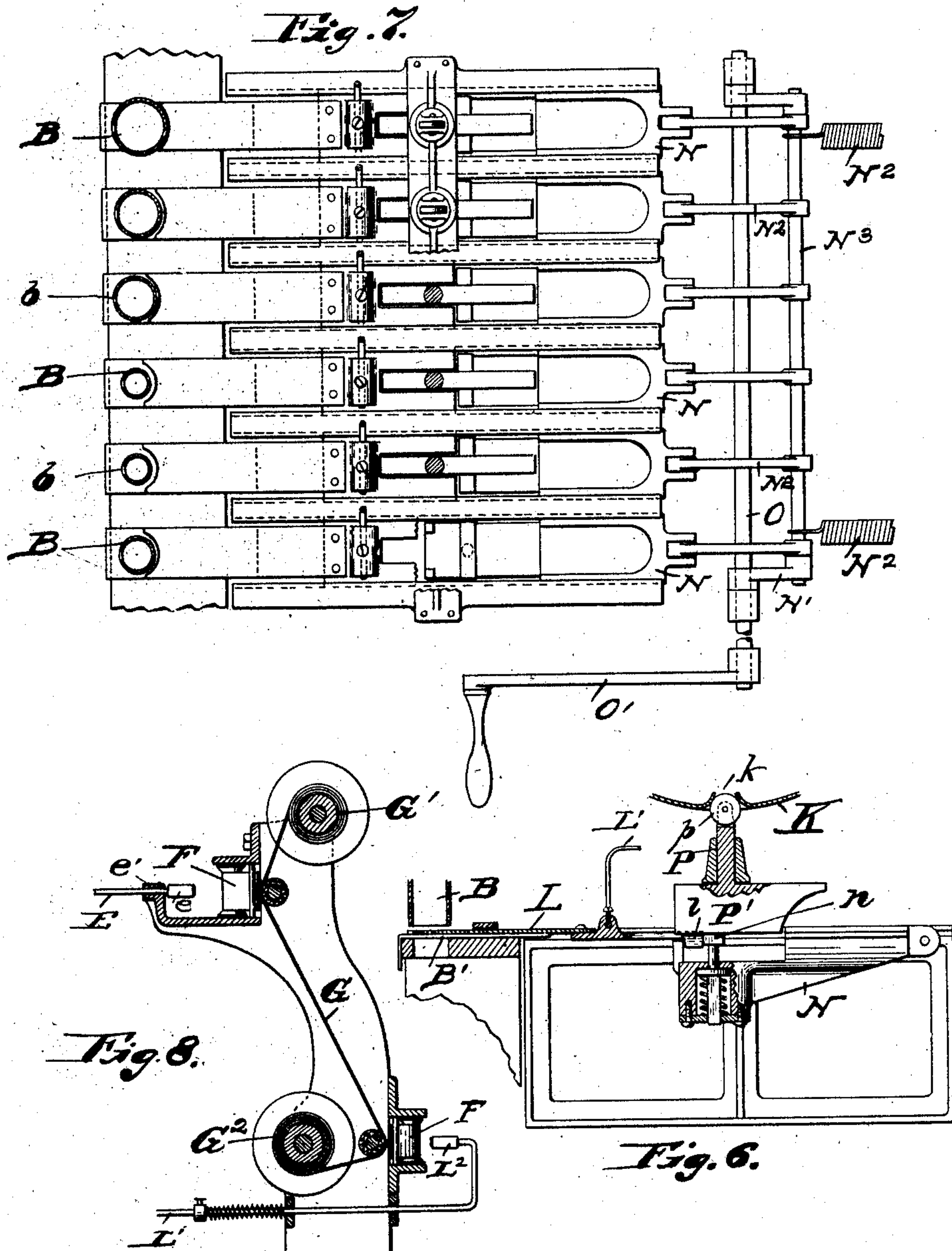
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CHANGE MAKER AND REGISTER.

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4 SHEETS—SHEET 4.



WITNESSES:

Henry L. Villers  
Lewis C. Flinders

INVENTOR  
Joseph F. Dredge  
By E. B. Thomas  
Attorney



# UNITED STATES PATENT OFFICE.

JOSEPH F. DREDGE, OF DETROIT, MICHIGAN, ASSIGNOR OF ONE-HALF TO LOUIS C. KATZ, OF DETROIT, MICHIGAN.

## CHANGE MAKER AND REGISTER.

No. 864,457.

Specification of Letters Patent.

Patented Aug. 27, 1907.

Application filed June 9, 1906. Serial No. 321,021.

*To all whom it may concern:*

Be it known that I, JOSEPH F. DREDGE, a citizen of the United States, residing at Detroit, county of Wayne, State of Michigan, have invented a certain new and  
5 useful Improvement in Change Makers and Registers, and declare the following to be a full, clear, and exact description of the same, such as will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying  
10 drawings, which form a part of this specification.

My invention relates to an improvement in change makers shown in the accompanying drawings and more particularly set forth in the following specification and claims.

5 In the drawings:—Figure 1 is a perspective view of my invention. Fig. 2 is a longitudinal vertical section of the machine. Fig. 3 is a cross-sectional view. Fig. 4 is a plan view with parts broken away of a detail of the machine, showing the sliding money pockets and  
20 the means for printing the amount deposited in each pocket on the deposit sheet. Fig. 5 is a vertical section through a detail of the machine showing one of the coin tubes and the means for discharging coins from the tube. Fig. 6 is a vertical section of a detail of the  
25 machine similar to that in Fig. 5, showing the parts controlling the coin delivery slide in position to discharge a coin from the tube. Fig. 7 is a plan view of a detail of the machine with parts in section, showing features of the coin releasing mechanism. Fig. 8 is a  
30 vertical section of a detail of the machine showing the deposit and change sheet and the type bars for printing the amount of deposits and change returned thereon. Fig. 9 is a detail view of a portion of the deposit sheet, and; Fig. 10 shows the other side of the sheet on which  
35 are impressed the amount of change returned to customer, if any, after deducting the sale from the amount deposited.

The object of my invention is to put upon the market an apparatus which will indicate the amount of each  
40 sale and upon depositing the amount received from the customer, a further operation of the machine will discharge the required change, the construction being such that the amount received from the customer and the amount returned in change will be printed upon  
45 deposit and change sheets in juxtaposition, the amount received for each sale can thus be determined in every case;—the change sheet taken in connection with the deposit sheet indicating at the close of the day the total amount of business done and the amount of money  
50 in the cash drawer.

Referring to the letters of reference shown in the drawings, A is the outside case or frame of the machine.

B are a series of coin tubes,—one for each denomination.—mounted inside of the case provided with slotted

openings *b* through which may be viewed and deter- 55 mined the number of coins on deposit in each tube, which is easily determined by means of the graduated scale stamped on the tubes adjacent to the openings, indicating the number of coins. The tubes being adjacent to the glass door C, they may be readily observed 60 from the outside of the machine without opening the door.

D is a sliding coin receptacle located above each of the tubes to receive the coins before depositing them in the respective tubes. Engaging each of the coin 65 slides D is a spring *d* secured to the frame of the machine to maintain the coin slides in their initial position ready for the reception of the coins to be deposited in the tubes.

E are a series of type bars secured to the upstanding 70 end of the coin slides D, their opposite ends provided with a type *e*,—the character on each indicating the amount of the coin for which the respective coin-tube is designed. These type bars are guided in suitable supports *e'* forming part of the framework of the ma- 75 chine.

F is a printing or typewriter ribbon coiled on winding spools *F'*, the same being provided with means for feeding the ribbon by rotating the spools. This mechanism, however, forms no part of the invention and is 80 not shown.

G is a ribbon of paper mounted on the spools *G'* and *G''*, one side of said paper ribbon being used to receive the record of the amount deposited in the coin tubes, while the other side receives the record of "change" 85 by mechanism which I will now explain.

Referring to Fig. 1 of the drawings, on the outside of the case is mounted a dial H, the figures indicating the amounts of prospective sales. In the center of this dial on the shaft I is mounted a swinging arm J provided 90 at one end with a pointer having an operating handle *J'* provided with a spring actuated thrust rod *j* designed to enter the apertures *j'* in line with each of the figures on the dial, the purpose being to lock the swinging arm opposite any one of the figures of the dial. Inside of the 95 case and mounted on the shaft I is the drum K, having slots or depressions *k* cut or sunken in its periphery at certain points determined by the rotation given the drum due to the operation of the swinging arm J. L are coin discharge slides guided by suitable ways 100 formed in the frame of the machine, the forward end of the slides when actuated passing directly beneath the coin tubes and by its movement forcing out the lowermost coin housed within the tube into the chute M, delivering it to the cup *M'* from which it may be removed. 105 When it is desired to remove all the coins from the tubes, the amount contained in each may be first readily ascertained by noting the number of coins in each tube with



reference to the graduations marked on the several tubes;—then upon removing the coin chute M, the slides B', forming the floor of the tubes, may be removed when the coins will drop into the drawer M<sup>2</sup> which may be divided into compartments if desired. Rising from the slide L is a type bar L', its rear end supporting a type L<sup>2</sup> having a character corresponding with the denomination of the coin discharged by the movement of the slide L. The difference between the total amount received and the amount discharged from the coin slides represents the amount of the sale. N indicate a series of sliding carriages traveling in suitable ways formed in the frame of the machine and corresponding in number with that of the coin tubes. These several carriages are actuated by the rocking arms N' mounted on the shaft O, the rocking arm having a link connection with the carriages, as indicated at N<sup>2</sup>, the shaft O controlling them being manually actuated by the crank arm O'. N<sup>3</sup> are springs engaging the shaft N<sup>4</sup> to which the several rocking arms N' are engaged, the office of the springs N<sup>3</sup> being to return the several carriages N back to their initial position. P indicate a series of plungers traveling in bearings formed in the frame of the machine and having journaled at their upper ends friction rolls p designed to enter one of the depressions k formed in the drum K, corresponding with the denomination of the coin tube in line with said plunger. The plungers P are mounted on top of the bars P' and are preferably an integral part thereof. The bars P' rests upon the spring actuated dogs n which serve to force the plungers to the limit of their movement.

By referring to Fig. 1 of the drawings, it will be seen that the numbers on the dial are divided into several groups, and for purposes of readily indicating the several groups the center of the dial may be differently colored, between the radiating lines shown thereon. The figures on the left hand side are supposed to indicate the total amount of a sale running from five cents to one dollar in units of five, and in this case it is assumed that a dollar will be presented by the customer from which change is to be made for a sale of any of the respective amounts indicated in the group referred to;—so also, in the upper right hand portion of the dial sales running from five cents to fifty cents are grouped, where change is to be made on a sale in which fifty cents is presented in payment. Just below this group is a similar division for purchases where twenty-five cents is tendered in payment, and below that are divisions when it is desired to discharge a dollar, fifty cents, etc. At the end of the drum and mounted thereon directly back of the case, is a dial K' indicated by dotted lines in Fig. 1. This dial has three circular rows of figures, the outside row indicating the amount tendered by a customer, the middle row indicating the amount of the purchase, and the inside row the amount of change that should be returned to the customer, or the difference between the inside row and the outer. Only one group of these figures are exposed at any one time, as they are viewed through the opening A' in the case. The several lines of figures register with the words "Deposit" on the case, (being the amount tendered), "Sale", (being the amount of purchase), and "Change", (being the amount returned to the customer), and as shown in Fig. 1 of the drawings, the amount tendered was one dollar,

the sale fifty-five cents, and the amount returned to the customer forty-five cents. It must now be understood that when the swinging arm J is set opposite any of the figures denoted on the dial that the drum K in its rotation will bring certain depressions in line with such plungers P.—which on being released will permit the respective spring actuated dogs n to rise sufficiently to engage the ends of the coin discharge slides L as may be required to make the necessary change. This is accomplished by the plungers P entering the slots k in the drum K, the bar P' permitting the head of the spring actuated dog n to rise sufficiently that it may contact with the enlarged end l of the slides L. Now by actuating the lever O', the carriages N will be forced forward by the action of the rocking arms N' and all slides in which the openings in the drum K have permitted the plungers to rise sufficiently will be forced forward, discharging their respective coins into the chute M. due to the fact that such of the spring actuated dogs n as are permitted to assume a position whereby they may contact with the end of their respective slides will force the coin from the tubes, making the required change. On the other hand, the unbroken surfaces of the drum K opposite the remaining plungers (due to the openings in the drum being set at predetermined points) serve to hold the several bars P' with their spring actuated dogs n out of contact with the abutting ends of their respective coin slides, leaving them at rest while the carriages N reciprocate.

Upon depositing the amount tendered in payment in the coin tubes the amount is registered on one side of the deposit sheet G by printing mechanism operated by the coin slides which deliver the coins to the tubes B,—a like registration being made of the money withdrawn from the tubes in making change on the other side of the sheet,—and in order to present a new surface on the sheet on which to print succeeding transactions in regular columns, I have provided means for winding the roll on the spool G'. This is accomplished by ratchet mechanism g mounted on the shaft of the spool G'. To this end g' is a spring actuated dog under the control of a manually operated lever G<sup>3</sup> but also automatically controlled by a lever G<sup>5</sup> pivoted at G<sup>6</sup>, the lever G<sup>5</sup> being connected to the hand lever G<sup>3</sup> by a link g<sup>2</sup>, the free end of the lever G<sup>5</sup> being constructed so that the rocking arm N' will contact with it upon every operation of the crank arm O', thereby actuating the dog g' and automatically winding the record sheet G upon the spool G', thus presenting a fresh surface on which to print the record of each transaction.

The object of providing means to wind the record sheet manually is for the purpose of moving the record sheet when the sale and the amount tendered in payment are the same.

When currency is tendered in place of coin in payment of sales, the respective bills are deposited in the drawers Q corresponding with their different denominations. To release the drawer in order to place therein or remove a bill, I have provided push buttons q, q' with the words "In" and "Out" marked upon them. The push button and push rod q<sup>2</sup> control a spring actuated dog R engaging the money drawer by means of a pin q<sup>3</sup>, which upon the rod q<sup>2</sup> being operated forces the spring actuated dog out of contact with the drawer, whereupon the spring S forces the drawer forward.



Upon the rod being thrust in to release the drawer, the pin  $q^4$  projecting from the rod  $q^2$  serves to actuate a registering mechanism T, which on rotating presents successive units indicating the amount deposited in the drawer. When it becomes necessary in making change to take from the drawer certain currency, the push button  $q'$  is operated which in like manner controls the drawer releasing mechanism just described,—the registering mechanism, however, being separate in order that a registry may be made of the amount in currency taken from the drawer.

From the foregoing description, the operation of the change maker and register will be readily understood. At the end of the day's sales, the record sheet is removed and divided through the middle, and the records placed side by side. The printed record showing the change returned and that of the deposits, having been printed on opposite sides of the sheet, are now placed in juxtaposition, it being understood that the sheet is of sufficient width to permit the "change" to be adjacent to one edge of the sheet, while the record of "Deposits" is on the other side of sheet adjacent to the opposite edge of the sheet. When placed side by side, it will be easy to determine, if necessary, the amount tendered in payment of any sale, the "sale" and the amount given in "change" in each case, while the totals indicate the gross amount of the deposits and the money taken from the drawer in making change, the difference between the two being the gross amount of the sales.

Having thus described my invention, what I claim is:—

1. A register of the character described comprising a case, coin tubes arranged within the case, a coin deposit slide cooperating with each tube, a coin discharge slide cooperating with each tube, a shaft, an apertured dial mounted upon the case, a drum mounted upon the shaft provided with depressions in its periphery, a series of carriages mounted beneath the drum, a reciprocal plunger mounted above each carriage for interchangeable engagement in the depressions of said drum, a lever mounted upon the shaft to rotate the drum, a spring actuated rod carried by the lever for interchangeable interlocking engagement in the apertures in the dial to lock the lever opposite the corresponding aperture, the locking of the lever arresting movement of the drum with certain of its depressions opposite the corresponding plungers to receive the upper ends of the latter, and means for moving the carriages whose plungers are engaged with the depressions of the drum to operate the discharge slides.

2. A register of the character described comprising a case, coin tubes arranged within the case, a coin deposit slide cooperating with each tube, a coin discharge slide cooperating with each tube, a shaft, an apertured dial mounted upon the case, a drum mounted upon the shaft within the case provided with depressions in its periphery, a series of spring controlled carriages mounted beneath the drum, a reciprocal plunger mounted above each carriage for interchangeable engagement in the depressions of said drum, a lever mounted upon the shaft to rotate the drum, means for locking the lever interchangeably in the apertures of the dial to hold the lever opposite the corresponding aperture, the locking of the lever arresting movement of the drum with certain of its depressions opposite the corresponding plungers to receive the latter and permit sliding movement of the carriages whose plungers engage said depressions, and manually operated means for shifting the carriages whose plungers are engaged with said depressions to operate the discharge slides.

3. A register of the character described comprising a case, coin tubes arranged within the case, a coin deposit slide cooperating with each tube, a coin discharge slide

cooperating with each tube, a shaft, an apertured dial mounted upon the case, a drum mounted upon the shaft within the case provided with depressions in its periphery, the case having an opening near its upper end, a dial mounted upon said shaft within the casing provided with figures including the amount tendered by a customer, the amount of purchase, and the change to be returned to the customer, for inspection through said opening, said second dial cooperating with said drum, a series of carriages mounted beneath the drum, a reciprocal plunger mounted above each carriage for interchangeable engagement in the depressions of said drum, a lever mounted upon the shaft to rotate the drum and the second mentioned dial, a spring actuated rod carried by the lever for interchangeable interlocking engagement in the apertures in the dial to lock the lever opposite the corresponding aperture, the locking of the lever arresting movement of the drum with certain of its depressions opposite the upper ends of the corresponding plungers to receive the latter, and means for moving the carriages whose plungers are engaged with the depressions of the drum to operate the discharge slides.

4. A register of the character described comprising a case, coin tubes arranged within the case, a coin deposit slide cooperating with each tube, a coin discharge slide cooperating with each tube, a rotatable shaft, an apertured disk carried by the case, a drum carried by the shaft and having depressions in its periphery, a lever carried by the shaft to rotate it, a spring actuated rod carried by the lever for interchangeable interlocking engagement in the apertures of the dial to lock the lever and drum at certain periods of their rotation, a series of carriages slidably mounted in the case, each carriage having a spring actuated dog, a vertically movable plunger arranged above each carriage and forced normally toward its upward limit by the corresponding aforesaid dog, each plunger carrying a roller at its upper end for engagement in corresponding depressions of said drum, the rollers cooperating with the corresponding depressions of the drum and apertures of the dial, the dogs being arranged to engage the discharge slides when the corresponding plungers have their rollers engaged in the depressions of the drum, and an indicating dial.

5. A register of the character described comprising a case, coin tubes arranged within the case, a coin deposit slide cooperating with each tube, a coin discharge slide cooperating with each tube, a rotatable shaft, an apertured disk carried by the case, a drum carried by the shaft and having depressions in its periphery, a lever carried by the shaft to rotate it, a spring actuated rod carried by the lever for interchangeable interlocking engagement in the apertures of the dial to lock the lever and drum at certain periods of their rotation, a series of carriages slidably mounted in the case, each carriage having a spring actuated dog, a vertically movable plunger arranged above each carriage and forced normally toward its upward limit by the corresponding aforesaid dog, each plunger carrying a roller at its upper end for engagement in corresponding depressions of said drum, the rollers cooperating with the corresponding depressions of the drum and apertures of the dial, the dogs being arranged to engage the discharge slides when the corresponding plungers have their rollers engaged in the depressions of the drum, and means operable by the respective deposit and discharge slides for recording the deposits and discharges of coins.

6. In a register of the character described a case, coin tubes arranged within the case, a coin deposit slide cooperating with each tube, a coin discharge slide cooperating with each tube, a shaft, an apertured dial mounted upon the case, a drum mounted upon the shaft within the case provided with depressions in its periphery, the case having an opening, a dial mounted upon the shaft within the case provided with indications of the amount tendered by a customer, amount of purchase, and the change to be returned to the customer for inspection through said opening, a series of carriages mounted beneath the drum, a reciprocal plunger mounted above each carriage for interchangeable engagement in the depressions of said drum, means for operating the shaft, means cooperating with



the first mentioned means to lock the first means interchangeably in the apertures in the dials, the locking of the first mentioned means arresting movement of the drum with certain of its depressions opposite the corresponding plungers to receive the latter, means for moving the carriages whose plungers are engaged with the depressions of the drum to operate the discharge slides, a printing means operable by the deposit slides for indicating the amount of deposits in the tubes, and a printing means operable by the discharge slides to indicate the amounts discharged from the tubes.

7. In a change maker and register a case, a series of coin tubes, a series of deposit slides, each of said slides having an upright extension at its inner end, a spring having connection with said extension of each slide and the case, a rotatable shaft, a drum carried by the shaft, a series of coin discharge slides cooperating with the tubes, spring controlled means for operating the discharge slides, a dial, a lever for rotating said dial and drum, and spring actuated plungers cooperating with the aforesaid spring controlled means and with said drum, means operable by the deposit slides for recording the deposits, and means operable by the discharge slides for recording the amount of change.

8. In a change maker and register a case, coin tubes, coin deposit slides, coin discharge slides, a printing mechanism operable by the deposit slides to indicate the amount of deposits in the tubes, a printing mechanism operable with the discharge slides to record the amount discharged from the tubes, a rotatable shaft, a dial carried by the case, a dial carried by the shaft within the case, a drum carried by the shaft provided with depressions, spring actuated plungers mounted in the case for interchangeable engagement in the depressions of the drum, and means for operating the discharge slides.

9. A register of the character described comprising a case, coin tubes arranged within the case, a coin deposit slide cooperating with each tube, a coin discharge slide cooperating with each tube, a shaft, a drum mounted upon the shaft provided with depressions in its periphery, an apertured dial mounted upon the case, a series of carriages cooperating with the discharge slides, a series of plungers cooperating with the carriages and the depressions of said drum, a lever mounted upon the shaft to rotate it, and a spring actuated rod carried by the lever for interchangeable interlocking engagement in the apertures of the dial to lock the lever opposite the corresponding aperture.

10. A register of the character described comprising a case, coin tubes arranged within the case, a coin deposit slide cooperating with each tube, a coin discharge slide cooperating with each tube, a rotatable shaft, an apertured disk carried by the case, a drum carried by the shaft and having depressions in its periphery, a lever carried by the shaft to rotate it, a spring actuated rod carried by the lever for interchangeable interlocking engagement in the apertures of the dial to lock the lever and drum at certain periods of their rotation, a carriage slidably mounted in the case for cooperation with each tube and its discharge slide, each carriage having a spring actuated dog, a vertically movable plunger arranged above each carriage and forced normally toward its upward limit by the corresponding aforesaid dog, each plunger carrying a roller at its upper end for engagement in corresponding depressions of said drum, the dogs being arranged to engage the discharge slides when the corresponding plungers and their rollers are engaged in the depressions of the drum, and means for sliding the carriages to operate the discharge slides.

11. A register of the character described comprising a case, coin tubes arranged within the case, coin deposit slides cooperating with each tube, a rotatable shaft, an apertured dial carried by the case, a dial carried by the shaft within the case, a drum carried by the shaft within the case having depressions in its periphery, a lever carried by the shaft to rotate it, a spring actuated rod carried by the lever for interchangeable interlocking engagement in the apertures of the dial to lock the lever and drum at certain periods of their rotation, a carriage slidably mounted in the case for cooperation with each tube and

its discharge slide, each carriage having a spring actuated dog, a vertically movable plunger arranged above each carriage and forced normally toward its upper limit by the corresponding aforesaid dog, each plunger carrying a roller at its upper end for engagement in corresponding depressions of said drum, the dogs being arranged to engage the discharge slides when the corresponding plungers and their rollers are engaged in the depressions of the drum, and spring controlled means for sliding the carriages to operate the discharge slides.

12. In a register of the character described a case, coin tubes arranged within the case, a coin deposit slide cooperating with each tube, a coin discharge slide cooperating with each tube, a rotatable shaft, an apertured disk carried by the case, a drum carried by the shaft having depressions in its periphery, a lever carried by the shaft to rotate it, a spring actuated rod carried by the lever for interchangeable interlocking engagement in the apertures of the dial to lock the lever and drum at certain periods of their rotation, a carriage slidably mounted in the case for cooperation with each discharge slide, each carriage having a spring actuated dog, a vertically movable plunger arranged above each carriage and forced normally toward its upper limit by the corresponding aforesaid dog, each plunger carrying a roller at its upper end for engagement in corresponding depressions of the drum, the dogs being arranged to engage the discharge slides with the corresponding plungers having their rollers engaged in the depressions of the drum, means for moving the carriages whose spring actuated dogs are engaged with the discharge slides, and means operable by the deposit and discharge slides for recording the deposit and discharge of coins.

13. A change maker and register comprising a case, a series of coin tubes in the case, a series of coin deposit slides cooperating with the tubes, a series of discharge slides cooperating with the tubes, a rotatable shaft, a drum carried by the shaft, a series of slidable carriages, plungers arranged between the carriages and the drum for cooperation with the latter, a second shaft, link connections between the second shaft and said carriages, and means for operating the second shaft.

14. A change maker and register comprising a case, a series of coin tubes in the case, a series of coin deposit slides cooperating with the tubes, a series of discharge slides cooperating with the tubes, a rotatable shaft, a drum carried by the shaft, a series of slidable carriages cooperating with the tubes, spring operated members between the carriages and the drum for cooperation with the latter, a second shaft, spring controlled connections between the second shaft and said carriages to hold them in their initial position, and means for operating the second shaft.

15. In a change maker and register a case, a series of coin tubes in the case, a series of coin deposit slides cooperating with the tubes, a series of discharge slides cooperating with the tubes, a rotatable shaft, a drum carried by the shaft, a series of slidable carriages cooperating with the tubes, a plunger mounted upon each carriage for vertical movement to cooperate with the drum, a second shaft, spring controlled connections between the second shaft and said carriages to hold them normally against operation, means for operating the second shaft, means operable by the deposit slides for recording the deposits, and means operable by the discharge slides for recording the amount of change.

16. In a change maker and register, a series of coin tubes, a deposit and a discharge slide cooperating with each tube, a rotatable shaft, a drum carried by the shaft, a series of slidable carriages, a plunger cooperating with each carriage and with the drum, a printing mechanism including type bars, the type bars being connected with the deposit and discharge slides, the deposit slide type bars impinging against one side of the record sheet and the type bars of the discharge slide impinging against the opposite side of the record sheet.

17. A change maker and register comprising a case, a series of coin tubes in the case, a deposit and a discharge slide cooperating with each tube, a rotatable shaft, a dial upon the case, a dial upon the shaft within the case, a drum carried by the shaft provided with depressions in its

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periphery, a series of slidable carriages, a plunger mounted upon each carriage and having one end arranged for engagement with the depressions of the drum, a second shaft, means for operating the second shaft, and a printing mechanism including type bars, the type bars being connected with the deposit and discharge slides, the deposit slides impinging against one side of a record sheet and the type bars of the discharge slide impinging against the opposite side of the sheet.

- 10 18. A change maker and register comprising a case, a series of coin tubes in the case, a deposit and a discharge slide cooperating with each tube, a rotatable shaft, a dial upon the case, a dial upon the shaft within the case, a drum carried by the shaft provided with depressions in its
- 15 periphery, a series of slidable carriages, a plunger mounted upon each carriage and having one end arranged for engagement with the depressions of the drum, a second shaft, means for operating the second shaft, a printing mechanism including type bars, the type bars being connected
- 20 with the deposit and discharge slides, the deposit slides impinging against one side of a record sheet and the type

bars of the discharge slides impinging against the opposite side of the sheet, and means for winding the record sheet to present a fresh surface for the impinging engagement of the type bars.

- 25 19. In a change maker and register, a series of coin tubes, a deposit and a discharge slide cooperating with each tube, a shaft, a drum carried by the shaft, a series of slidable carriages, a member cooperating with each carriage and with the drum, a printing mechanism including
- 30 type bars, the type bars being operable by the deposit and discharge slides, the discharge slide type bars impinging against one side of a record sheet and the type bars of the discharge slides impinging against the opposite side of the record sheet.

35 In testimony whereof, I sign this specification in the presence of two witnesses.

JOSEPH F. DREDGE.

Witnesses:

HENRY E. VILLEROT,  
L. E. THOMAS.