

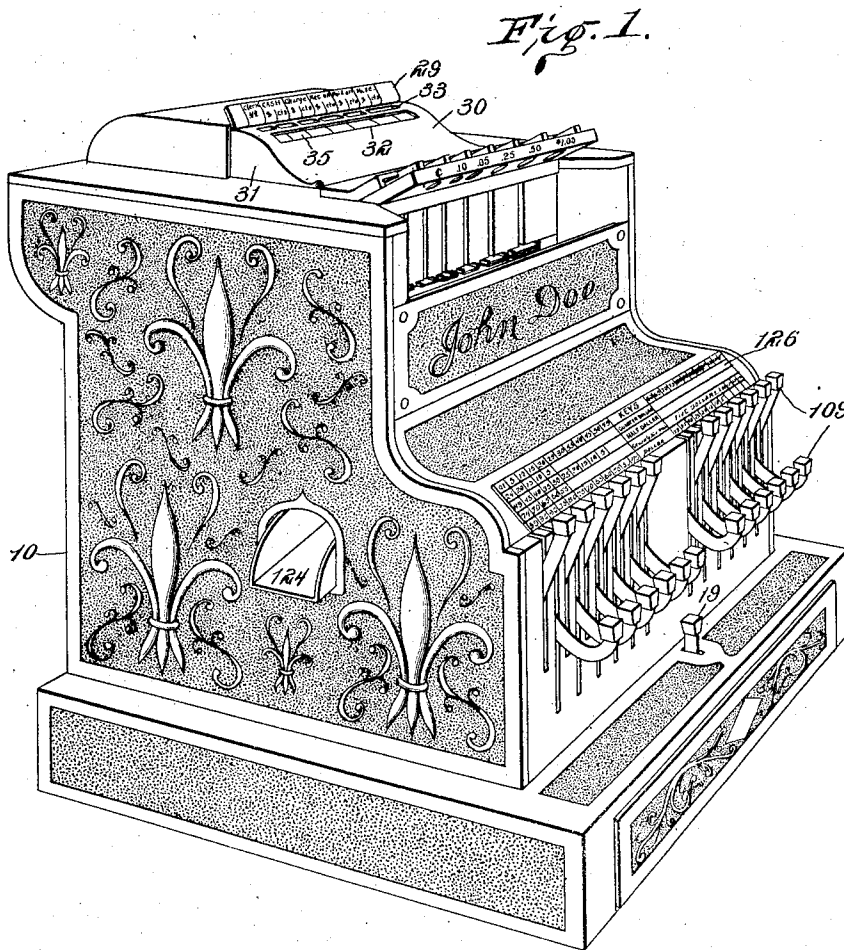
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No. 826,521.

PATENTED JULY 17, 1906.

J. M. McCLARY.
MACHINE FOR HANDLING COINS.
APPLICATION FILED JULY 18, 1905.

6 SHEETS—SHEET 1.



Witnesses

Louis D. Heinrichs
Herbert D. Lawson

James M. McClary ^{Inventor}

W. I. Fitzgerald & Co ^{Attorneys}

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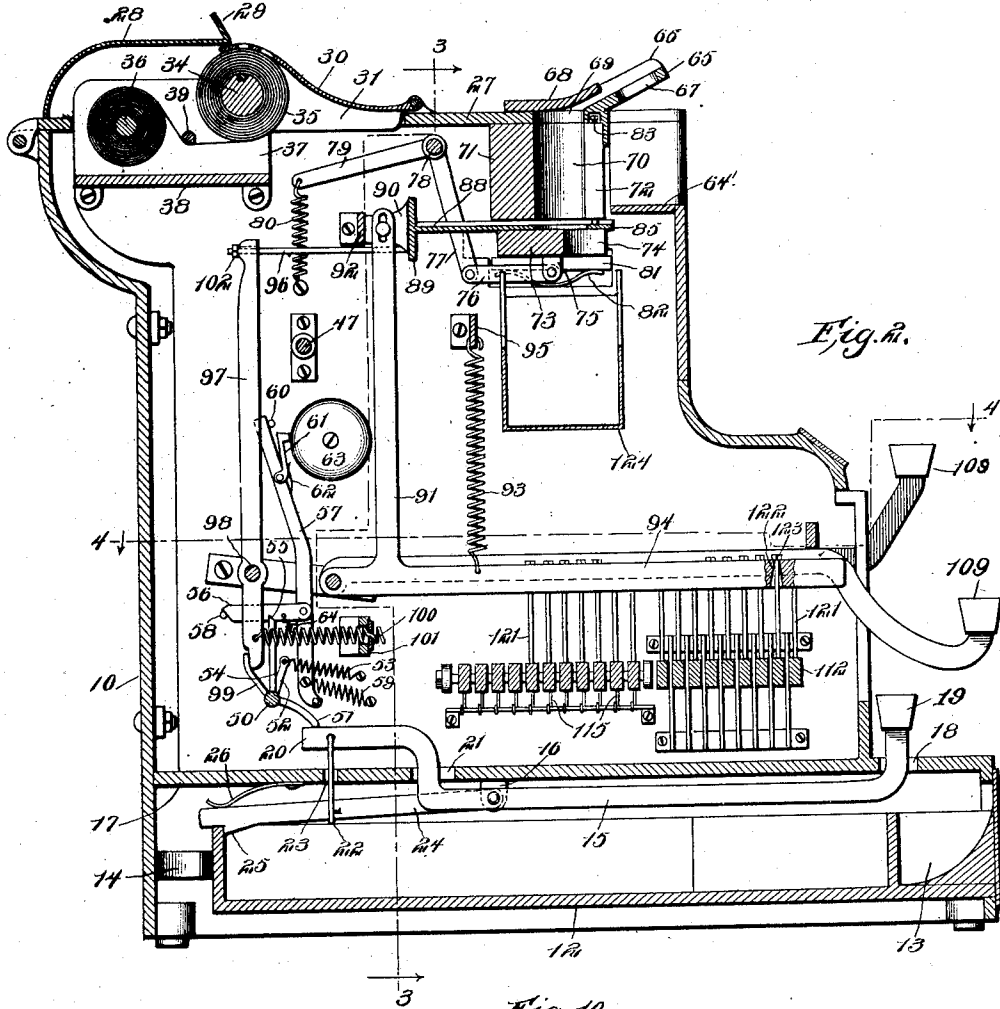


Fig. 10.

01	5	10	15	20	25	30	35	40	45	50	55	KEYS										60	65	70	75	80	85	90	95	1.00	2.00	3.00	4.00	
24	20	15	10	5	Quarter Dollar																													
19	45	40	35	30	25	20	15	10	5	Half Dollar																								
74	70	65	60	55	Seventy-five Cents											Five Dollars										2.00	2.50	3.00	4.00					
99	95	90	85	80	75	70	65	60	55	50	45	Dollar										40	50	60	70	80	90	1.00	1.50	2.00	2.50	3.00	3.50	4.00

Inventor
James M. McClary

Witnesses
Louis D. Heinrichs
Arthur Dawson

By
W. J. Fitzgerald & Co
Attorneys

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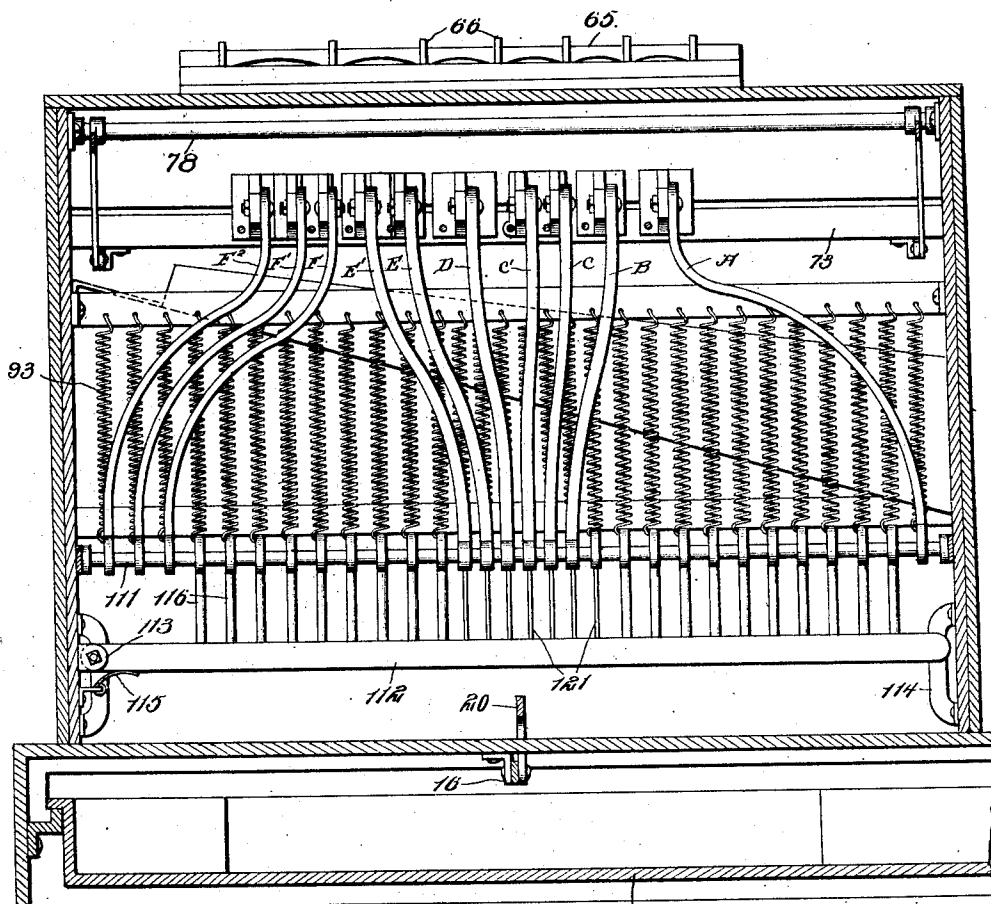


Fig. 3.

Witnesses

Louis D. Hennrichs
Herbert D. Lawson

Inventor
James M. McClary

By
W. J. Fitzgerald & Co.
Attorneys

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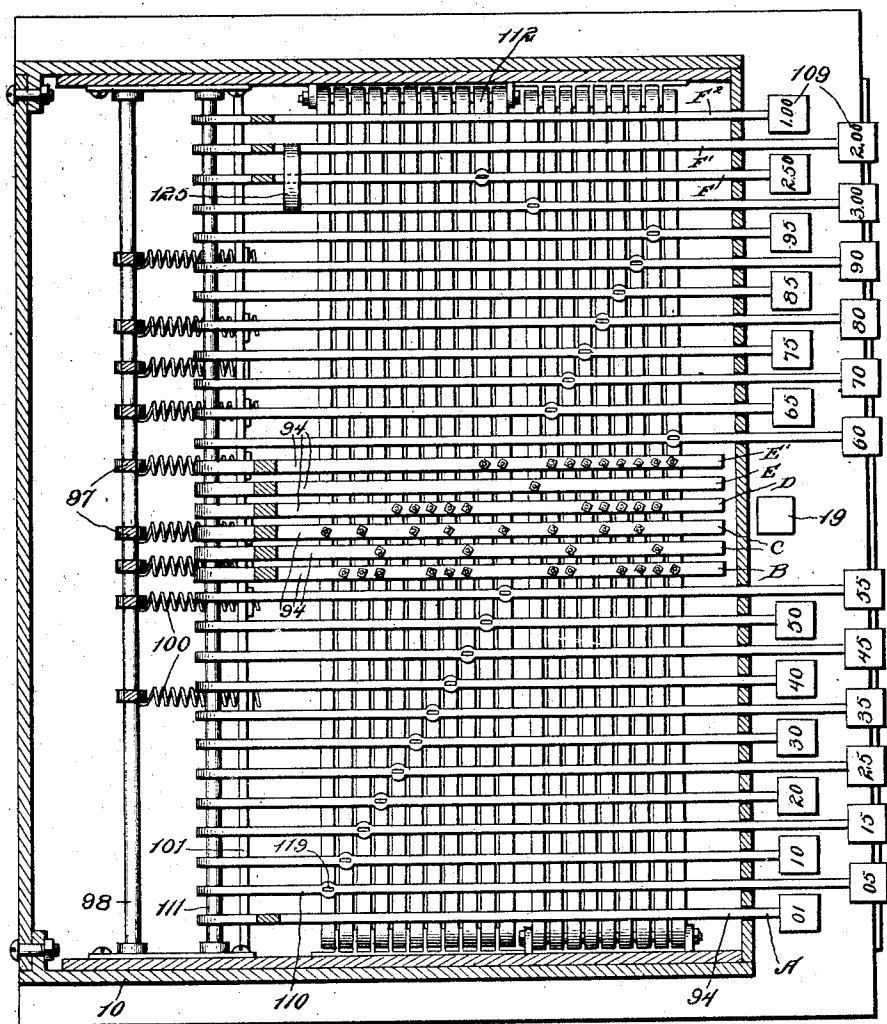


Fig. 4.

Inventor
James M. McClary

Witnesses

Louis D. Heinrichs
Herbert D. Lawson

By W. J. Fitzgerald & Co.
Attorneys

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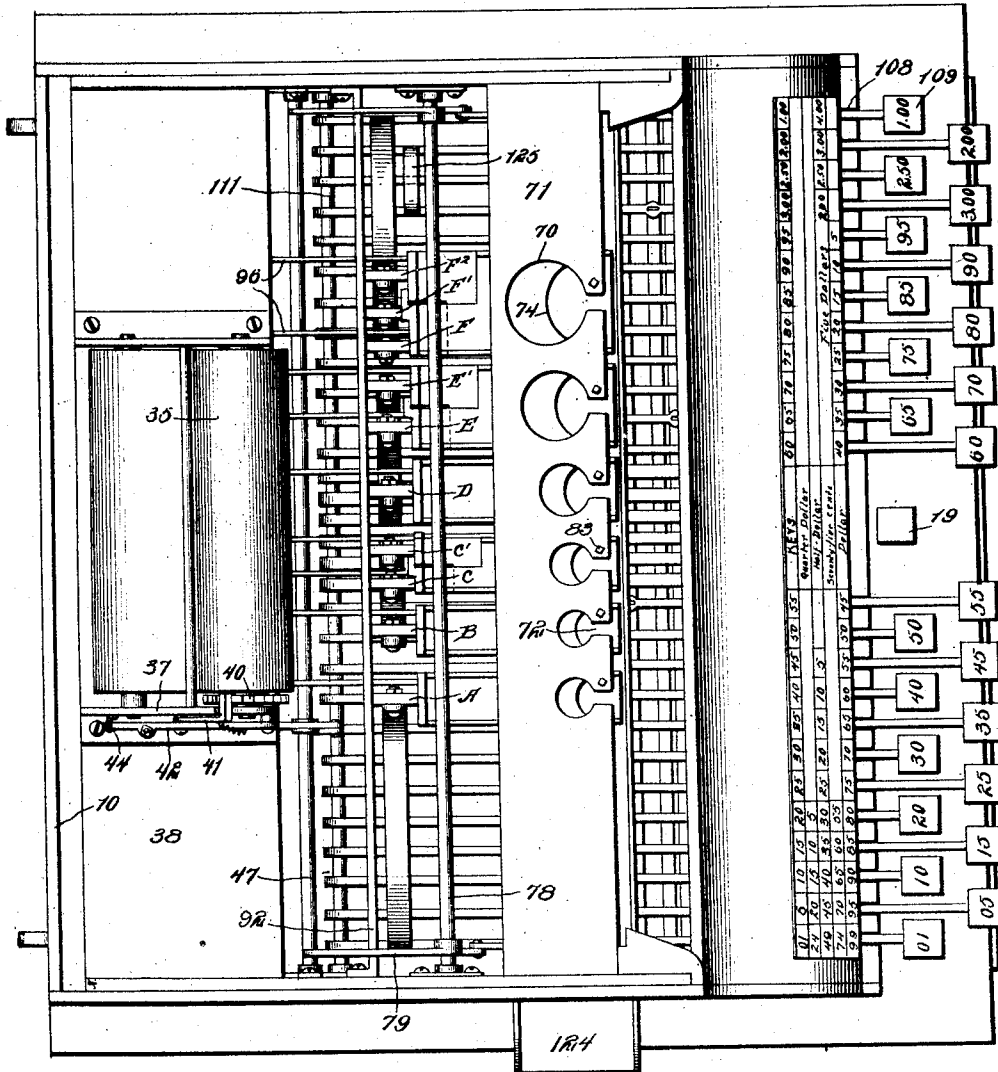


Fig. 5.

Witnesses

Louis D. Heimmichs
Herbert D. Lawson.

Inventor
James M. McClary

By W. J. Fitzgerald
Attorneys

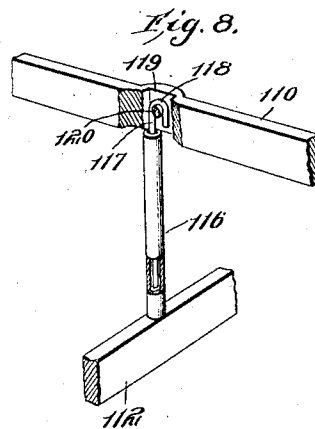
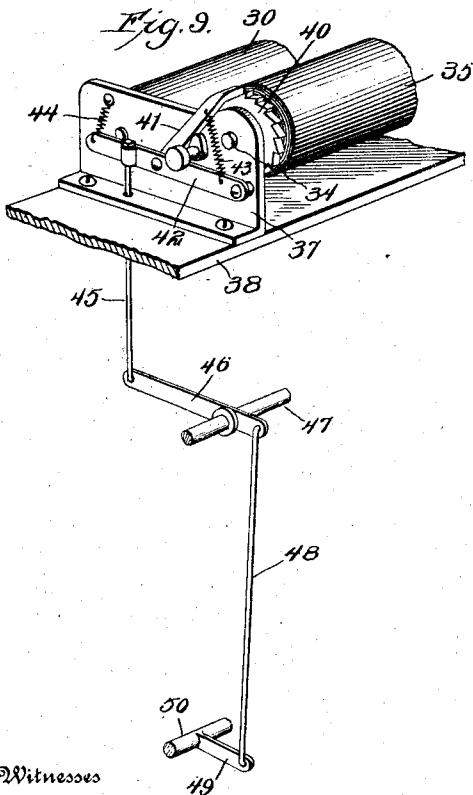
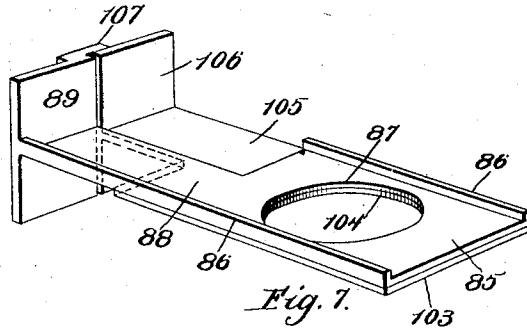
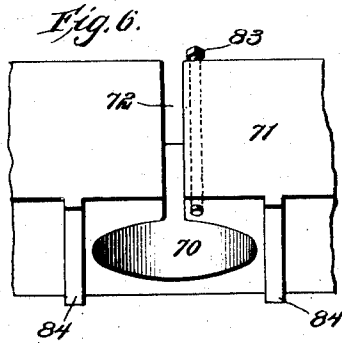
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6 SHEETS—SHEET 6.



Witnesses
Louis D. Hennrich
Hubert Lawson

Inventor
James M. McClary
W. J. Fitzgerald & Co.
Attorneys

UNITED STATES PATENT OFFICE.

JAMES M. McCLARY, OF RICEVILLE, IOWA, ASSIGNOR OF ONE-HALF TO
HARRY COWAN, OF RICEVILLE, IOWA.

MACHINE FOR HANDLING COINS.

No. 826,521.

Specification of Letters Patent.

Patented July 17, 1906.

Application filed July 18, 1905. Serial No 270,228.

To all whom it may concern:

Be it known that I, JAMES M. McCLARY, a citizen of the United States, residing at Riceville, in the county of Mitchell and State of Iowa, have invented certain new and useful Improvements in Machines for Handling Coins; and I do hereby 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.

My invention relates to machines for handling coins; and it embodies in its structure an improved money-drawer, an automatic money-changer, and a register for preserving accounts of all business transactions.

The object of the invention is to provide a machine of this character actuated by a series of key-levers whereby any desired amount in coin can be automatically discharged.

Another object is to provide means whereby coins can be quickly deposited within proper receptacles provided for them; means being utilized for preventing the coins from locating in other than the proper receptacles provided for them.

A still further object is to employ mechanism by means of which more than one coin of the same denomination can be discharged from the machine upon one depression of the proper key-lever.

A further object is to provide a money-drawer adapted to be automatically opened when a proper key is depressed, said operation causing a bell to be sounded.

A still further object is to employ novel mechanism for sounding the bell whenever one or more coins are discharged from the apparatus.

Other objects are the provision of a tape for the reception of data relating to business transactions, said tape being wound by mechanism actuated by the coin-ejecting and drawer-operating devices.

With the above and other objects in view the invention consists of certain novel features of construction and combinations of parts, which will be hereinafter more fully described, and pointed out in the claims.

In the accompanying drawings I have shown the preferred form of my invention.

In said drawings, Figure 1 is a perspective view of the complete machine. Fig. 2 is a

central vertical section through the machine, taken from front to rear. Fig. 3 is a section on line 3 3, Fig. 2. Fig. 4 is a horizontal section through the machine on line 4 4, Fig. 2, the bell and all of the mechanism for sounding the same except the plunger-actuated levers being removed. Fig. 5 is a plan view of the machine with the top removed. Fig. 6 is a bottom perspective view of a portion of the coin-holder. Fig. 7 is a perspective view of a double coin-plunger. Fig. 8 is a perspective view, partly in section, showing the connection between one of the key-levers and its coupling-bar. Fig. 9 is a perspective view showing the recorder-actuating mechanism, and Fig. 10 is a detail view of the key-indicating table.

Referring to the drawings by characters of reference, 10 is a casing which may be suitably ornamented and is formed integral with a preferably enlarged base 11, in which is fitted a drawer 12, which can be subdivided into suitable receptacles 13 for the reception of coins, bills, &c. This drawer when closed bears against a spring 14, which is secured to the back of the case and in rear of the drawer and is held normally under tension. A lever 15 is pivoted above the drawer 12 to an ear 16, which depends from a partition 17, extending throughout the width and depth of the casing. The front end of this lever projects through an aperture 18, formed within that portion of the partition 17 which projects beyond the front of the casing, and a key 19 is located on the projecting end of this lever so that the same may be readily depressed by placing a finger thereon. The rear end of the lever 15 has an angular extension 20, which projects through an opening 21 in partition 17, and has a link 22 hanging from it through an opening 23 in the partition, and this link serves to support a latch 24, which is pivoted to ear 16, and has a shoulder 25, which is held normally in engagement with the rear wall of the drawer 12 by means of a spring 26, secured to partition 17 and bearing upon the latch 24. From the foregoing it will be seen that the drawer 12 is held normally locked in closed position by means of the latch 24. When it is desired to open the drawer, however, the key 19 is depressed and causes lever 15 to swing upon its fulcrum and draw the latch 24 upward by means of link 23, thereby releasing the rear wall of the

drawer 12 and permitting the spring 14 to throw the drawer outward. When the drawer is pressed inward, it will first compress the spring 14, and after the rear wall of the drawer passes the shoulder 25 said shoulder will be forced downward into engagement therewith by means of the spring 26.

The top of the casing 10 is closed by a lid 27, which is hinged to the rear wall of the casing and is adapted to be locked in closed position in any suitable manner. This lid has a hood 28 detachably secured on the rear portion thereof in any suitable manner, and this hood extends the greater portion of the width of the lid and has an upwardly-extending flange 29 formed by the front portion or edge thereof. The hood is closed at the sides and back; but the front thereof is open, and projecting thereinto is a hinged plate 30, having side flanges 31, and an elongated slot 32 is formed within this plate 30 and extends from side to side thereof. A series of smaller alining slots 33 are formed within plate 30 close to the base of the flange 29. Plate 30 normally contacts with and is supported by a take-up roll 34, to which is secured one end of a tape 35, adapted to be wound thereon from a feed-roll 36. This feed-roll 36, as well as the roll 34, is mounted between supports 37, secured to a cross-plate 38, which is fastened to the sides of the casing 1 and extends throughout the width of said casing. A rod 39 is preferably interposed between the two rolls, so as to properly guide the tape from the feed-roll to the roll 34. The tape is ruled longitudinally, as shown, through the slot 32 in Fig. 1, and the lines upon the tape are so disposed as to pass between the small slots 33. Flange 29 is subdivided so as to correspond with the columns on the tape, and these subdivisions are designated by headings, such as "Clerk No.," "Cash," "Charge," &c. The roll 34 has a ratchet-wheel 40 secured to it, and said wheel is normally engaged by a pawl 41, which is pivoted to a lever 42, fulcrumed at one end on one of the supports 37. A spring 43 connects the pawl with the lever 42, so as to hold the pawl normally in engagement with the ratchet-wheel, and another spring 44 is connected at opposite ends to lever 42 and support 37 and constitutes a resilient support for the lever 42. A rod 45 is secured to and depends from lever 42 and is pivoted to one end of a lever 46, fulcrumed at a point between its ends on a shaft 47, extending from side to side within the casing 10, and the other end of this lever 46 is connected, by means of a rod 48, with an arm 49, extending from a second shaft 50, which is disposed within the casing 10 and extends from side to side thereof. For the purpose of clearness this arm 49 has not been shown in Fig. 2, but is disclosed in Fig. 9. Another arm 51 extends from the shaft 50 and bears on the inner end of the extension

20 of key-lever 15, and a third arm 52 extends from shaft 50 and is connected to one end of a spring 53, the other end of which is secured to a fixed portion of the casing 10. An actuating or tripping arm 54 extends from shaft 50 and has a beveled end which is normally seated within a recess 55, formed in a link 56. This link is pivoted to an elongated lever 57, and the outer or free end of the link 56 is beveled and rests upon a supporting-pin 58. A coiled spring 59 is connected to lever 57 adjacent its fulcrum and serves to hold the upper end of said lever normally against a stop-pin 60. A hammer 61 is pivoted to lever 57 and is held normally projected at an angle therefrom by a weak bow-spring 62. This hammer normally contacts lightly with a bell 63, disposed within the casing. A small coiled spring 64 connects the link 56 with the lever 57, so that the beveled end of said link is held positively in contact with pin 58.

With the mechanism above described it will be seen that each time the key 19 is depressed the arm 51 will be forced upward by extension 20 and cause shaft 50 to partly rotate. This rotation of the shaft will produce two operations—to wit, the partial rotation of roll 34 and the sounding of bell 63. The roll 34 is actuated by arm 49, which transmits motion to lever 42 through lever 46 and rods 48 and 45. When lever 42 is drawn downward by the actuation of shaft 50, the pawl 41 rotates the ratchet-wheel 40 one notch and the tape is partly wound on the roll 34, and a blank space thereon is brought under slot 32, and any suitable data may be inscribed thereon in the proper column. The second operation—to wit, the sounding of the bell—is produced in the following manner: When shaft 50 is partly rotated, the actuating or tripping arm 54 presses against link 56, and as this link has a beveled end bearing on pin 58 it will be forced upward as it moves toward the pin and will at the same time carry the lever 57 and hammer 61 away from bell 63. After this movement has been carried on a predetermined time the link 56 will be lifted entirely out of engagement with the actuating-arm 54, and therefore the spring 59, which is tensioned by the operation described, returns the lever 57 quickly into contact with stop-pin 60 and throws the hammer 61 against the bell 63. As soon as key 19 is released and pressure is removed from arm 51 the spring 53 will return the shaft 50 and all the parts connected thereto to their normal positions, and the actuating or tripping arm 54 will reassume its place within the recesses 55 of link 56.

The lid 27 is cut inward at its front edge, and the front wall of the casing is also cut away along the top, so that a shelf 64' can be disposed beneath the cut-away portion of the lid and in rear of the front of the casing. This

shelf is located directly below an inclined strip 65, which extends forward from the front edge of the lid. A series of parallel ribs 66 are located upon strip 65 and extend from front to rear thereof. These strips are spaced apart varying distances, so that chutes are formed, which are of widths corresponding to the diameters of the various coins used in the machine. For example, the first chute is equal in width to the diameter of a "cent," the second chute is equal in width to the diameter of a "dime," the third to a "nickel," the fourth to a "quarter," the fifth to a "half-dollar," and the sixth to a "dollar." Each chute has a circular opening 67 in the bottom thereof directly above the shelf 64, and said opening is of slightly less diameter than the width of the chute. It will therefore be seen that if a dime is placed within the cent-chute it will not pass over the opening 67, but will be discharged therethrough onto the shelf 64. Of course any other coin larger than a cent could not be placed within the cent-chute because of its width. The same means for discharging coins improperly placed is followed in all of the chutes, and it will therefore be seen that by means of my novel arrangement of selective devices the coins can be quickly deposited upon the strip 65 until all of them shall either pass along the chute into the receptacles provided for them or fall through the openings 67. These dropped coins can subsequently be removed from the shelf and placed in their proper chutes. The lower ends of the chutes extend under a guard-strip 68, which extends from side to side of the strip 65 and serves to close the inlet ends of apertures 69; which are formed within the lid 27 at the lower ends of the chutes and are exactly equal in diameter to the width of their respective chutes. These openings 69 register with the upper ends of compartments 70, which are formed within a block 71, suitably secured within the casing. The compartments are preferably so disposed as to assume upright positions when the machine is in use, and the front wall of each compartment has a longitudinally-extending slot 72 therein, through which the contents of the various receptacles can be readily seen. It will of course be understood that the slotted wall of the block 71 constitutes the rear wall of the shelf 64.

A supporting-strip 73 extends longitudinally under the block 71 and is spaced therefrom a distance equal to the thickness of one or more coins. This supporting-strip has a series of semicircular recesses 74 in its front edge, and the inner portions of the walls of these recesses are preferably normally disposed in alinement with the longitudinal centers of the receptacles 70. It will therefore be seen that any coins within the receptacles will normally rest upon the supporting-strip 73 and will partly overlap the recesses 74 in

said strip, but will be prevented from falling, by gravity, out of position within their receptacles. The supporting-strip 73 has ears 75 depending from its ends, and these ears are connected, by means of links 76, with arms 77, extending from the ends of a shaft 78, rotatably mounted within the casing 10. A manipulating-arm 79 also extends from the shaft 78 and is secured at its free end to a fixed portion of the casing 10 by means of a coiled spring 80. Strip 73 is supported and slidably mounted on blocks 81, which are located under the ends of said strip and are upheld by bow-springs 82. These blocks constitute resilient supports for the strip 73 and serve to hold it normally pressed upward in proper relation with the receptacle-block 71. A set-screw 83 projects through the block 71 from the top to bottom thereof near each slot 72, and this set-screw serves to bear upon a coin-plunger of novel construction which is slidably mounted between strip 73 and each of the receptacles 70. Parallel beads 84 are formed on the block 71 at opposite sides of the lower end of each receptacle 70, and these beads constitute guides for the coin-plunger referred to. Each of these plungers consists of a plate 85, having side flanges 86, adapted to fit between and bear upon the beads 84. An opening 87 is formed within the plunger and is adapted to normally rest under and register with the compartment 70, beneath which the plunger is located, the diameter of the opening 87 being equal to the diameter of the compartment thereabove. The rear of the plunger has a stem 88 extending from it and provided with a head 89, formed of oppositely-extending end flanges. The head 89 is normally contacted by a block 90, to which is pivotally connected one member 91 of a bell-crank plunger-actuating lever. This block 90 is held normally in contact with a stop-strip 92 by means of a coiled spring 93, which connects the other member 94 of the lever with a cross-strip 95, fixedly secured to the casing 10. The head 89 of the plunger is in turn held clamped upon the block 90 by means of a rod 96, which is slidably mounted in one end of a lever 97, pivoted on a shaft 98 and having its lower end overlapped by an arm 99, extending from the shaft 50. A coiled spring 100 is secured at one end to the overlapped end of lever 97 and at its other end to a cross-strip 101, secured with the casing, and this spring 100 exerts a constant pull on the rod 96 through lever 97. The rod 96 is slidably mounted in lever 97, so that said lever can swing toward the head 89 without actuating it; but a head 102 is located upon the end of rod 96, so that said lever 97 cannot be swung away from head 89 independently thereof.

As hereinbefore stated, each receptacle 70 has a plunger 85 located thereunder. The plungers located under the nickel, half-dollar,

and dollar receptacles, however, are double, as shown in Fig. 7, wherein it will be seen that the plunger 85 is slidably mounted upon a second plunger 103, provided with an opening 104, which normally registers with the opening 87. The stem 105 of this plunger 103 is located at one side of and parallel with the stem 88 and has a head 106, which is normally overlapped by a flange 107, formed upon the head 89. Each of the plungers 85 and 103 has a separate operating-block 90, so that by actuating one of the blocks of a double plunger the plunger 103 thereof will be actuated to discharge a single coin, whereas by actuating the block 90, contacting with head 89, both plungers 85 and 103 will be actuated simultaneously to discharge two coins at one operation. As hereinbefore stated, a double plunger is preferably located beneath the nickel, half-dollar, and dollar receptacles. The plungers of all the receptacles are provided with similar actuating mechanism—to wit, bell-crank levers 91 and 94 and bell-actuating levers 97. The members 94 of the actuating-levers of the cent and dollar plungers, however, project directly through slots 108 in the front of the casing and have keys 109 thereon. It is to be noted also that a third actuating-lever is utilized in connection with the dollar-plunger. In other words, one lever bears upon the head 106, whereas two levers are adapted to independently actuate the head 89. This is shown in Fig. 5.

For convenience in further disclosing my construction I have designated the actuating-lever of the cent-plunger by the letter A, of the dime-plunger by the letter B, of the nickel-plungers by the letters C and C', of the quarter-plunger by the letter D, of the half-dollar plungers by the letters E and E', and of the mechanism of the dollar-plungers by the letters F, F', and F². It will be noted that the cent-operating lever A is disposed at one side of the casing, whereas the three-dollar-operating levers F, F', and F² are located at the other side. The lower members 94 of these levers, as hereinbefore stated, terminate in keys 109. The lower members 94 of the levers B, C, and C', D, E, and E' are grouped together at the center of the apparatus and do not extend from the casing. Arranged at each side of this group of members 94 are parallel key-levers 110. These key-levers are all mounted at their rear ends on a shaft 111, extending from side to side of casing 10, and they extend above and at right angles to coupling-bars 112. As shown particularly in Figs. 2, 3, and 4, these coupling-bars are disposed in two parallel groups. The bars of each group are similar, the only difference being that in one group the bars are pivoted to the right side of the casing, whereas in the other group they are pivoted to the left side thereof. Each bar 112 is piv-

otally connected to an ear 113, while its other end is slidably mounted between guides 114. A spring 115 is secured to the casing adjacent the ear 113 and serves to resiliently support the bar 112. Each bar is adapted to be actuated by one of the key-levers 110, and the means for connecting each key-lever with its coupling-bar 112 has been shown in detail in Fig. 8. It will be seen that each of the coupling-bars 112 has a tubular extension 116 projecting upward therefrom, and in each is slidably mounted a rod 117, having a hooked end 118, which projects into a slot 119 in the key-lever 110 and engages a pin 120 therein. By means of this connection it will be seen that when the key-lever is depressed it will bear on the tube 116 and force down its coupling-bar 112. The coupling-bar, however, can be depressed without causing a corresponding movement of the key-lever. While I prefer to connect the key-levers and coupling-bars in the manner shown in Fig. 8, I can, if desired, utilize any other well-known means for coupling the two parts.

As shown in Fig. 2, I employ novel means for coupling the bars 112 with the respective plunger-actuating levers B, C, and C', D, E, and E'. Each coupling-bar has one or more rods 121 extending upward from it, and each of these is slidably mounted within a tapered aperture 122, formed in the proper lever member 94. Each rod has a head 123 at its upper end, so that when the rod is pulled down the plunger-operating lever in which it is mounted will be carried therewith. None of these rods 121, however, can be carried downward by the lever members 94.

I preferably arrange the key-levers so that the keys thereon will be in two rows one above the other, the lower keys being disposed below the spaces between the upper keys. Moreover, the keys are preferably designated by numerals, the first key having the numeral "1" thereon, the next "5," the next "10," and so on consecutively, increasing five with each key until the numeral "95" is reached. The key adjoining the "95" key is preferably designated by "3.00," the next "2.50," the next "2.00," and the next "1.00." These numerals are used to designate the amount of money which will be discharged from the machine when the key is depressed. In order to get the proper result, it is necessary to couple the bar 112 of each key-lever with the proper plunger-actuating bar. For instance, in order to get fifteen cents by depressing the key 15 it is necessary to connect its coupling-bar 112 to lever B and lever C'. Therefore when the key 15 is depressed both the bar B and bar C' will be pulled downward by rods 121 engaging the stem of the coupling-bar 112, and the plungers actuated by the levers B and C' will be slid forward, carrying therewith any coins contained within the openings therein. The

lever B, as hereinbefore stated, controls the plunger of the dime-receptacle, whereas the lever C' controls the secondary plunger 105 of the nickel-receptacle. When the nickel and dime plungers are thrown forward in the manner herein described, the coins within their apertures 87 and 104 will be pushed into position over the recesses 74 in supporting-strip 73 and will drop into an inclined chute 124, which is secured within the casing 10 and extends under strip 73 throughout the length thereof, the end of said chute projecting beyond one side of the casing. As soon as the coins are deposited within the chute in the manner above described they will slide by gravity to the outlet end thereof, where they can be allowed to fall into the hand of the user. The other keys are all connected in the manner hereinbefore described to their proper coupling-bars 112, so that when a key is depressed the amount represented thereon will be promptly discharged into chute 124. It will be noted, however, that the "1.00" and "2.00" key-levers are not connected to any of the coupling-bars, but directly operate their plungers. The "2.50" key-lever, however, is in addition to being connected directly to the operating-block 90 of the head 89 of the "1.00" plunger connected to one of the coupling-bars, which in turn is adapted to actuate the secondary half-dollar-plunger-actuating lever E'. Therefore by depressing the "2.50" key it will not only let two silver dollars be projected by the two plungers 85 and 103 of the dollar-receptacle, but also a half-dollar will be projected into the chute. In order to get three dollars, a yoke 125 is disposed upon the lever of the "3.00" key and extends over the "2.50" key-lever and bears upon the "2.00" key-lever, so that when the "3.00" key is depressed the "2.00" key will be actuated thereby to project two dollars into the chute. In addition to this result two half-dollars will be projected into the chute, because the "3.00" key-lever is connected to a coupling-bar, which in turn actuates the plunger-operating lever E, which causes the projection of two half-dollars simultaneously with the projections of the two dollars.

In order that the proper change can always be produced without requiring the operator to calculate the same, I provide a table 126, which is located upon the front of the casing directly above the keys. This table is subdivided into a number of parallel columns equal to and directly above the keys. These columns are subdivided by lines which form transversely-extending columns designated by the words "Keys," "Quarter-dollar," "Half-dollar," "Seventy-five cents," and "Dollar." The first vertical column at the left of the table contains the numerals "01," "24," "49," "74," and "99." The keys-column contains in addition to the numeral "01" numerals

"5, 10," &c., up to "95" and then the numerals "3.00," "2.50," "2.00," and "1.00." The quarter-dollar column contains at the left in addition to the numeral "24" the numerals "20," "15," "10," and "5." The half-dollar column in addition to the numeral "49" contains the numerals "45, 40," &c., down to the numeral "5." The seventy-five-cents column contains in addition to the numeral "74" the numerals "70," "65," "60," and "55." The dollar-column contains in addition to the numeral "99" the numerals "95, 90, 85," &c., down to "5." Arranged in the seventy-five-cents column, at the right of the center thereof, are the words "Five dollars," which designate a column of four figures—to wit, "2.00," "2.50," "3.00," and "4.00." By closely examining the table, a detail view of which is shown in Fig. 10, it will be seen that by deducting any number in a horizontal column from the amount indicated by the heading of said column the result will be the same as the numeral at the head of the vertical column. In other words, if a purchase is thirty cents and a half-dollar is presented in payment by glancing along the half-dollar column to the numeral "30" it will be seen that the number in the keys-column directly above the "30" is "20," which is the amount of change necessary. The operator, however, is not required to glance at the keys-column in operating the machine, as the numeral "30" is directly above the key numbered "20," and therefore by pressing on the key directly under the amount of the purchase the proper change will be produced. If a purchase of twenty-three cents is made and a half-dollar is presented, the cent-key is depressed twice to make the purchase equal to twenty-five cents and then the key under the "25" in the half-dollar column is depressed, with the result that in addition to the two cents first discharged a quarter will be added thereto, making the proper change of twenty-seven cents. The same method can be followed in making any change, and, as before stated, where a table such as is illustrated by me is employed it is not necessary for the operator to do any calculating. It is only necessary for him to depress the key indicating the purchase in the column designating the amount presented in payment.

Should it be desired to remove all of the coins from the machine, as at the end of the day's business, it is merely necessary to raise the lid 27 and pull up on arm 79. The strip 73 will then be drawn back on its supporting-blocks 81, so that the recesses 74 will register with the openings in the plungers. The coins in all of the receptacles 70 will then drop directly into the chute 124 and will be discharged at the side of the machine.

It will be noted that by the employment of the arm 99 on shaft 50 and the several le-

vers 97—one for each coin-plunger—the bell 63 will be sounded each time a plunger operates, because as the plunger moves forward it will swing its lever 97 so as to press against arm 99 and actuate the bell mechanism in the manner hereinbefore described.

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

1. The combination with coin-ejecting mechanism, and an arm integral therewith having a tapered aperture therethrough; of a key-lever, a spring-supported movable coupling-bar adapted to be actuated by the lever, guides therefor a rod extending from said bar through the aperture in the arm, and a head upon the rod normally contacting with the arm.

2. The combination with coin-ejecting mechanism and an arm integral therewith having a tapered aperture therethrough; of a key-lever, a movable coupling-bar adapted to be actuated by the lever, a rod extending from said bar through the aperture in the arm, a head upon the rod normally contacting with the arm, and resilient supports for the arm and key-lever.

3. The combination with a plurality of coin-receptacles, and a chute thereunder, of a resiliently-mounted supporting-strip interposed between the chute and the interior of the receptacles; means for withdrawing said strip from under all of said receptacles simultaneously; a plunger interposed between each receptacle and the supporting-strip, each plunger having a coin-receiving aperture, a key-lever, and mechanism operated by said key-lever for projecting the apertured portions of predetermined plungers beyond the supporting-strip and above the chute.

4. The combination with a coin-receptacle and a supporting-strip thereunder; of overlapping plungers interposed between the strip and receptacle and having normally aligning coin-receiving apertures adapted to register with the receptacle, a head upon each plunger, one of said heads overlapping the other, a block separate from, but normally contacting with, each head, key-levers, and connections between each lever and the respective blocks.

5. The combination with a plurality of coin-receptacles; of a supporting-strip, means for holding said strip normally beneath the interiors of the receptacles, and means for removing the strip from beneath all of the receptacles simultaneously.

6. The combination with a plurality of coin-receptacles; of a resiliently-mounted supporting-strip, means for holding said strip normally below the interiors of the receptacles, plungers interposed between the receptacles and strip and having coin-receiving apertures normally registering with said receptacles, and means for removing the sup-

porting-strip from under all the apertures simultaneously.

7. The combination with a key-lever and ejecting mechanism adapted to be operated thereby; of a spring-controlled lever connected to the ejecting mechanism, a bell, a hammer therefor, a tripping device for actuating the hammer, and means for transmitting motion from the lever to the tripping device.

8. The combination with a bell and a hammer therefor; of a spring-controlled lever constituting a support for the hammer, a notched link pivoted to the lever and having a beveled end, a fixed support for said end, a spring-controlled rotatable shaft, a tripping-arm upon the shaft and normally engaging the notched link, a second arm extending from the shaft, a spring-controlled lever overlapped thereby and adapted to actuate it, ejecting mechanism for operating the lever, and a key-lever for actuating the ejecting mechanism.

9. The combination with a bell and a hammer therefor; of a spring-controlled lever constituting a support for the hammer, a spring-controlled rotatable shaft, a tripping-arm extending therefrom, a notched link pivoted to the lever and normally engaged by the tripping-arm, said link having a beveled end, a fixed support for said end, a key-lever, and means actuated by the lever for rotating the shaft.

10. The combination with a casing having an apertured portion; of a take-up roll disposed below the apertured portion, a feed-roll for supplying tape to the take-up roll, coin-ejecting mechanism within the casing, a key-lever for actuating the same, a rotatable shaft, means actuated by the ejecting mechanism for rotating the shaft, and mechanism actuated by the shaft for intermittently operating the take-up roll.

11. The combination with a casing having coin-ejecting mechanism therein and a series of key-levers extending from the casing and adapted to actuate said mechanism; of a table adjacent the levers and upon the casing, said table being subdivided to indicate the key to be depressed to produce desired coins.

12. A table for money-changing machines formed in a single sheet having thereon a row of spaces indicating different amounts of change, and additional rows of spaces parallel therewith and designated by characters indicating amounts received, said additional rows being subdivided into spaces containing numerals indicating amounts of purchases, said amounts being arranged in columns with numerals in the first row whereby said last-mentioned numerals will indicate the proper change.

13. The combination with coin-ejecting mechanism; of a plurality of key-levers pivoted at one end, depressible spring-supported coupling-bars extending under the key-levers

at right angles thereto, a tubular extension upon each of said bars, a rod connected to each key-lever and slidably mounted within the extension and constituting a guide, said lever adapted to normally rest upon the tubular extension thereunder, a plurality of spring-supported actuating-levers for the ejecting mechanism, and rods extending from the coupling-bars and slidably engaging one or more of the actuating-levers, said coupling-bars and actuating-levers being disposed at right angles to each other.

14. The combination with a coin-ejecting plunger; of a resiliently-supported bell-crank lever connected at one end to and adapted to actuate the plunger, a key-lever pivoted at one end and parallel with the bell-crank lever, a resiliently-supported coupling-bar extending under said levers at right angles thereto, a rod extending from the bar and slidably engaging the bell-crank lever, a tubular extension upon said bar normally contacted by and supporting the key-lever, and a rod connected to said key-lever and slidably mounted within the tubular extension.

15. The combination with a casing having an opening in one face; of a block immovably secured within the casing and in rear of said opening, said block having a series of parallel compartments therein constituting coin-receptacles, said compartments being of different diameters and each having a slot in its wall communicating with the opening, an inclined strip mounted upon the casing and having parallel channels thereon of different

widths, each channel opening into the top of one of the receptacles and having a discarding-aperture in the bottom thereof, and a guard-strip secured upon the casing and extending over the receptacles and a portion of the channeled strip.

16. The combination with a casing having an inclined chute extending transversely therein and projecting from one side of the casing; of a block fixedly secured within the casing above the chute, said block having a series of compartments therein constituting coin-receptacles and each compartment having a slot in its wall, a resiliently-mounted supporting-strip interposed between the chute and block and having notches adapted to simultaneously register with the compartments within the block, independently-operated ejecting devices mounted on the supporting-strip and beneath the compartments, an inclined strip secured upon the casing adjacent the block and having parallel channels thereon, each channel communicating at one end with the top of one of the compartments and having a discarding-aperture and a guard-strip extending over the compartments and overlapping the channeled strip.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JAMES M. McCLARY.

Witnesses:

C. C. EARNIST,
F. L. ZILK.