C. SCHMIDT.

COIN REGISTER.

APPLICATION FILED APR. 4, 1910.

973,981.

Patented Oct. 25, 1910.

5 SHEETS—SHEET 1.

Fig. 1.

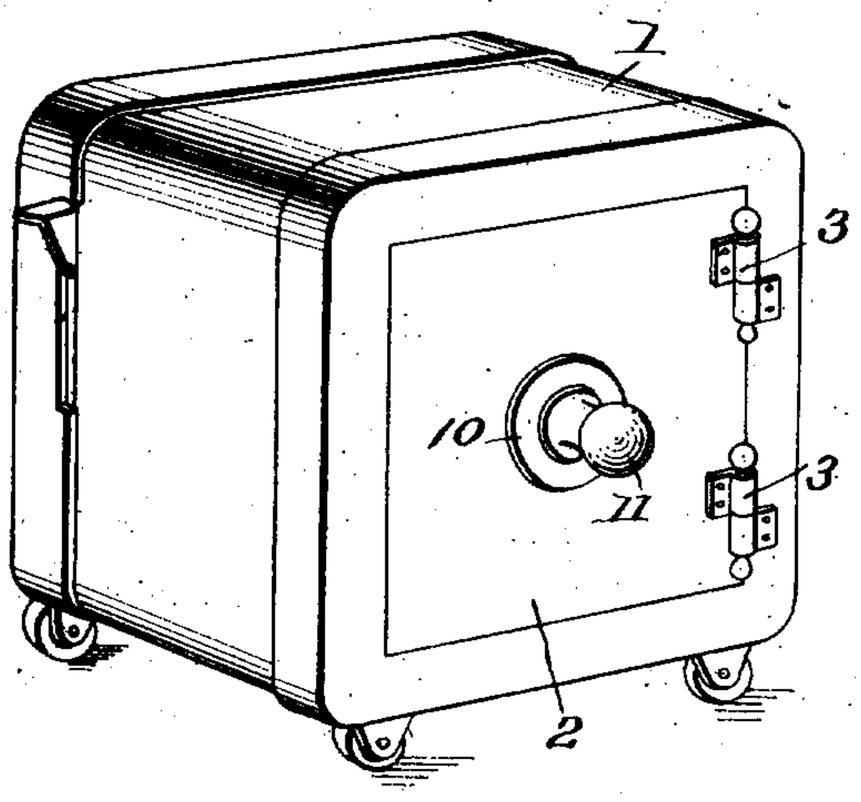


Fig. 2.

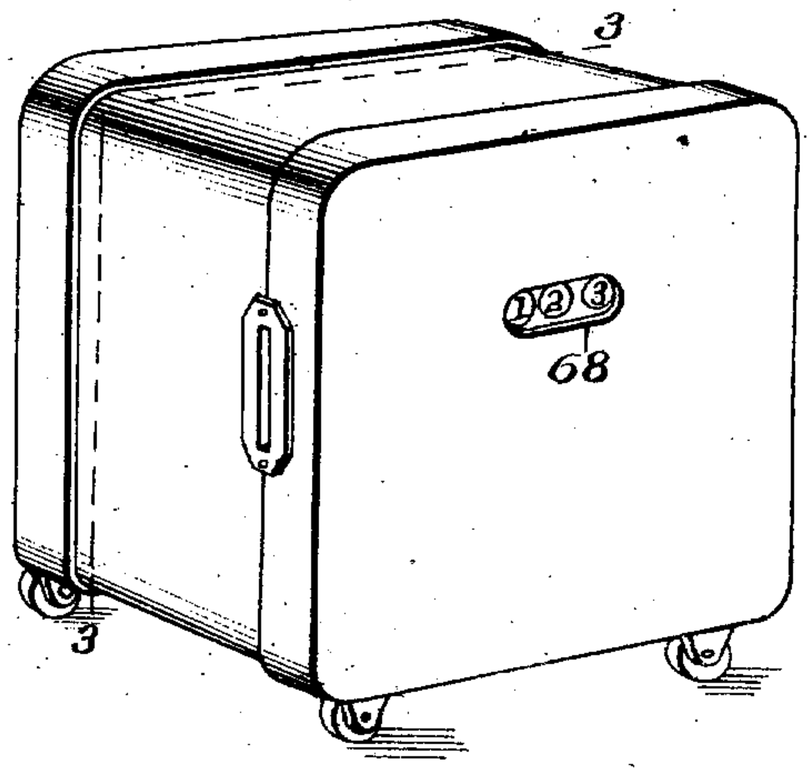
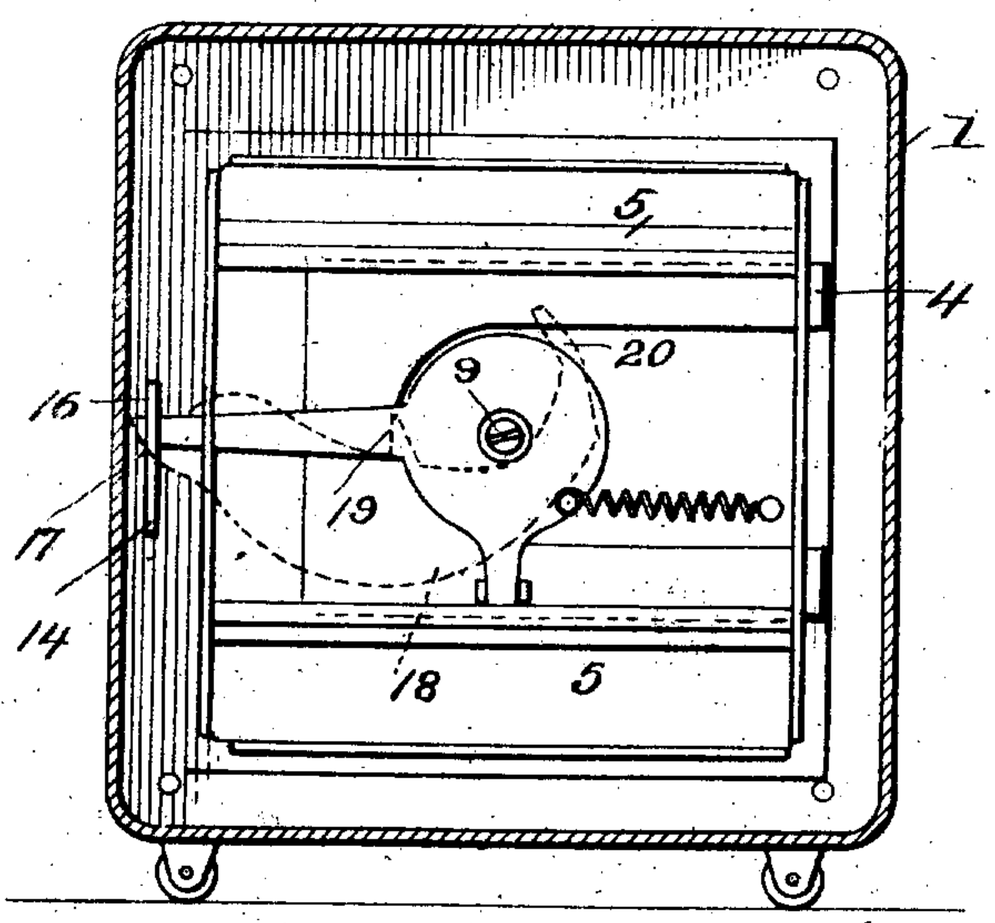


Fig. 3.



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5 SHEETS—SHEET 2.

Fig. 4.

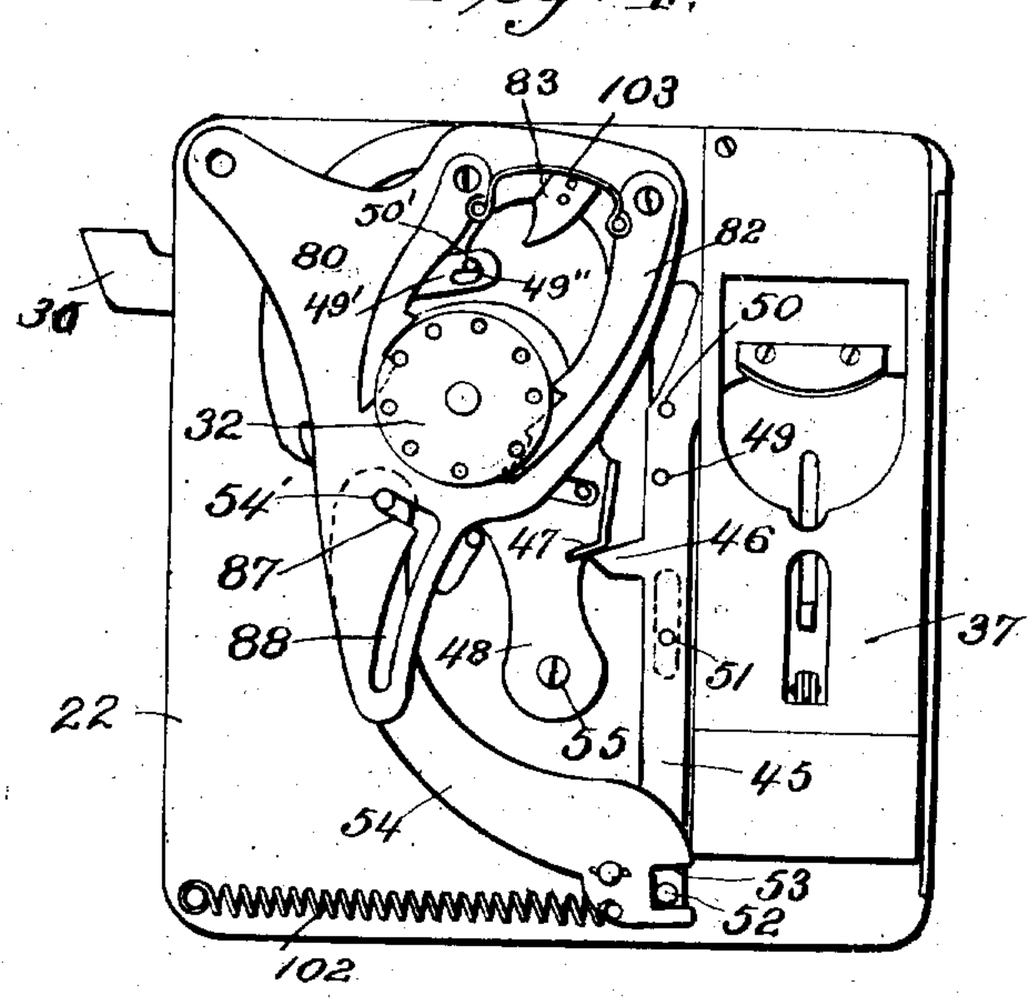
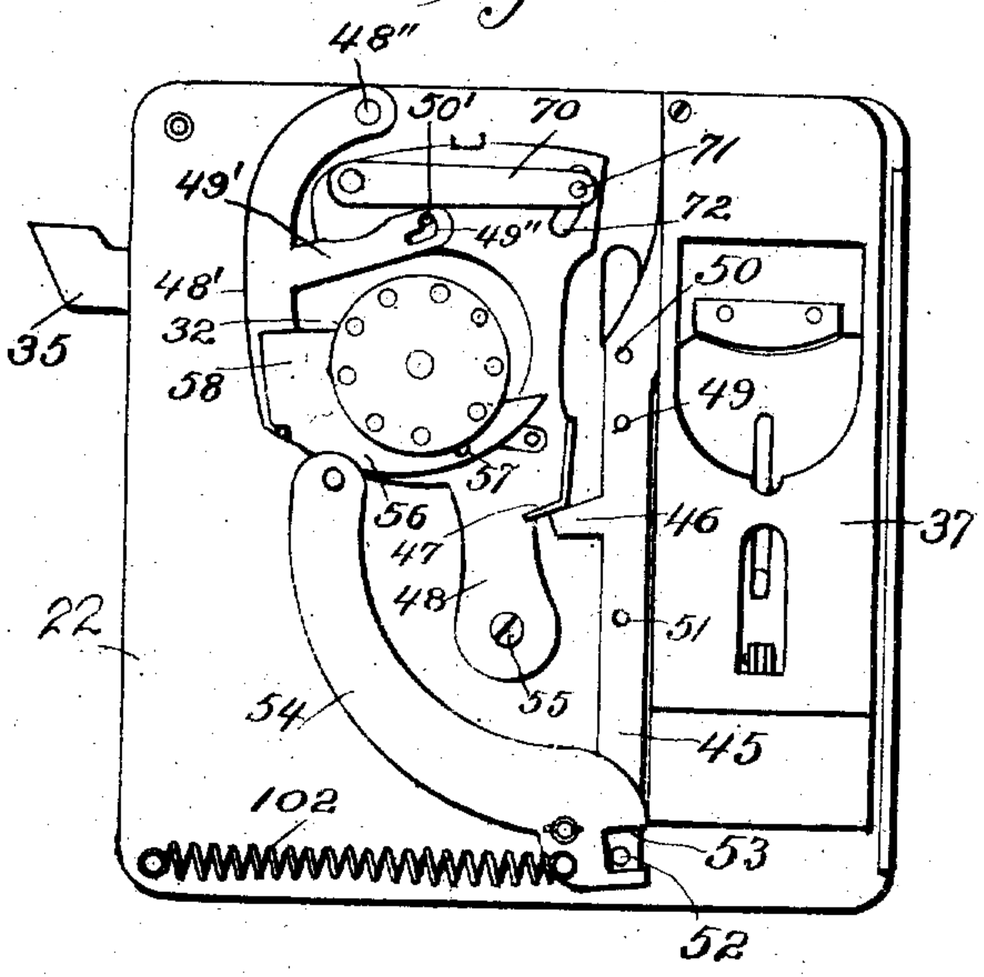


Fig. 5.



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5 SHEETS—SHEET 3.

Fig. 6

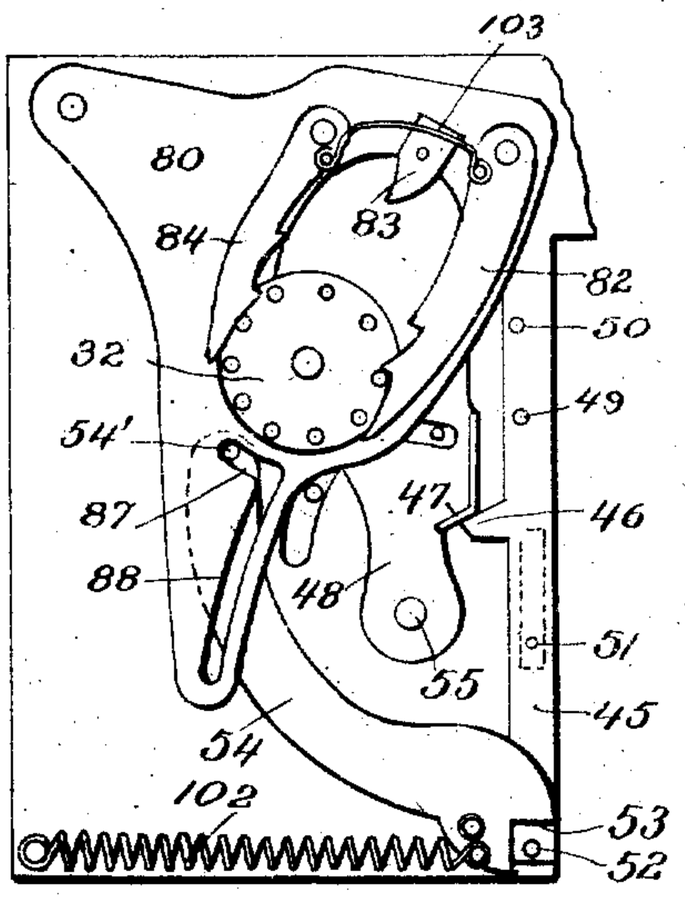


Fig. 7.

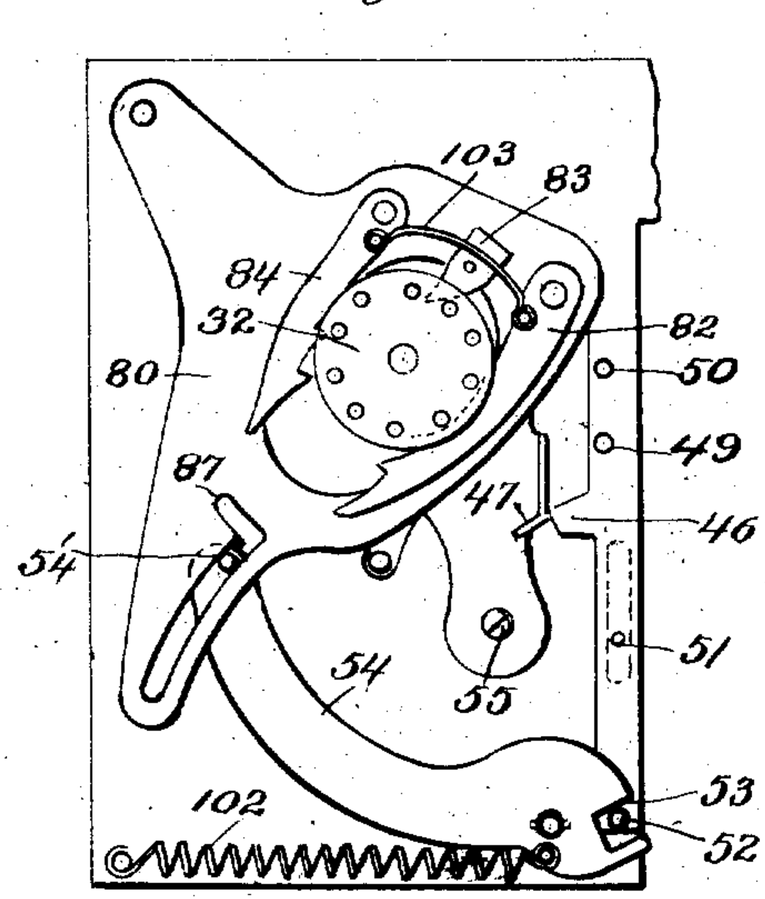


Fig. 8.

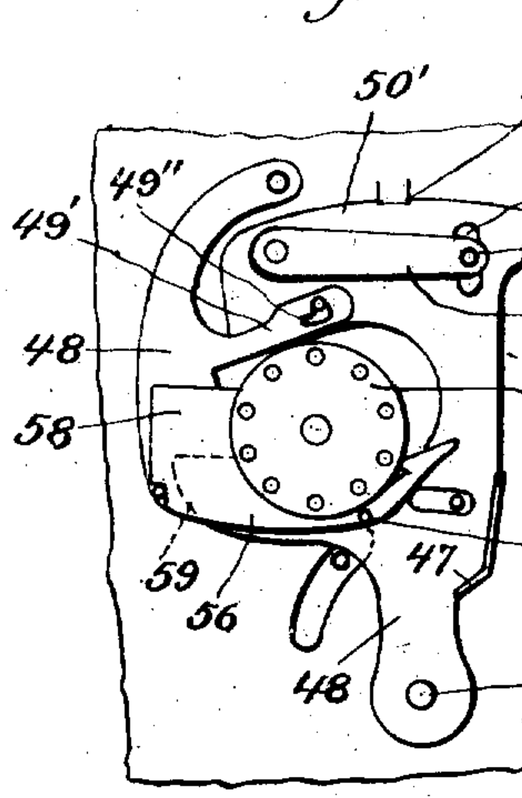


Fig. 9.

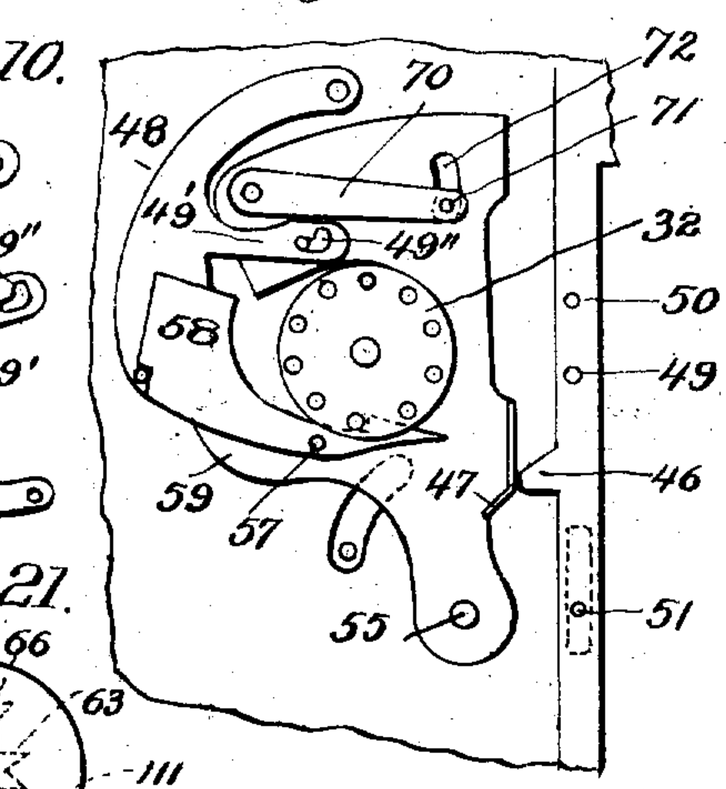


Fig. 10.

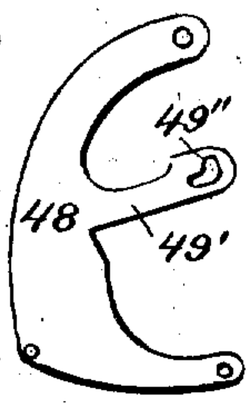


Fig. 21.

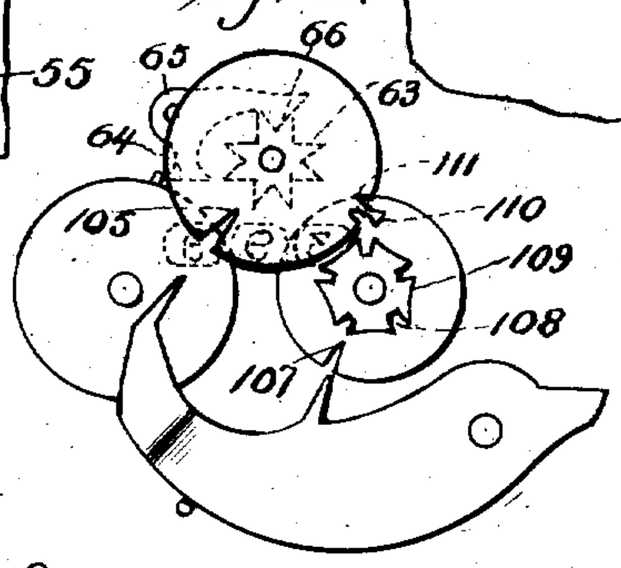
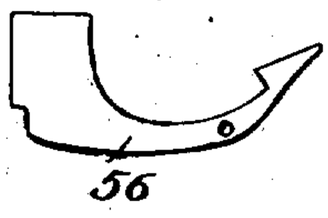


Fig. 11.



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5 SHEETS—SHEET 4.

Fig. 12.

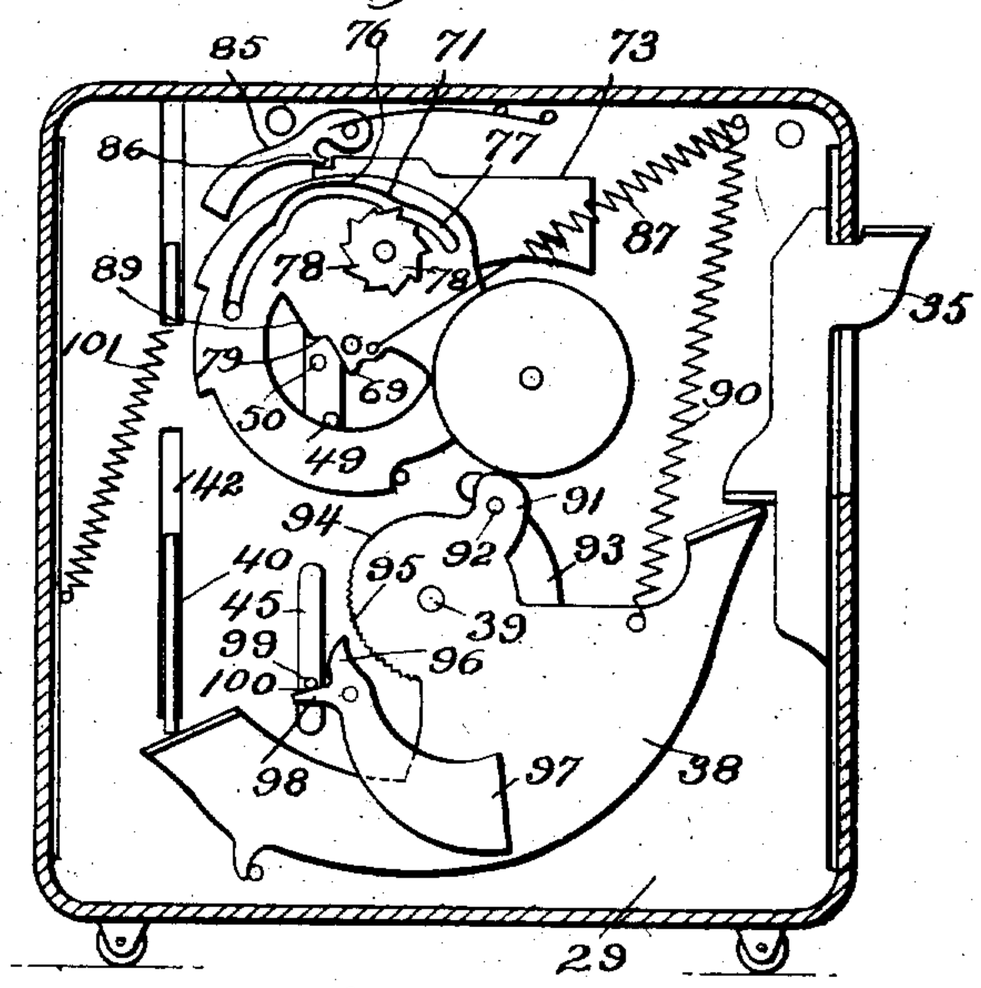
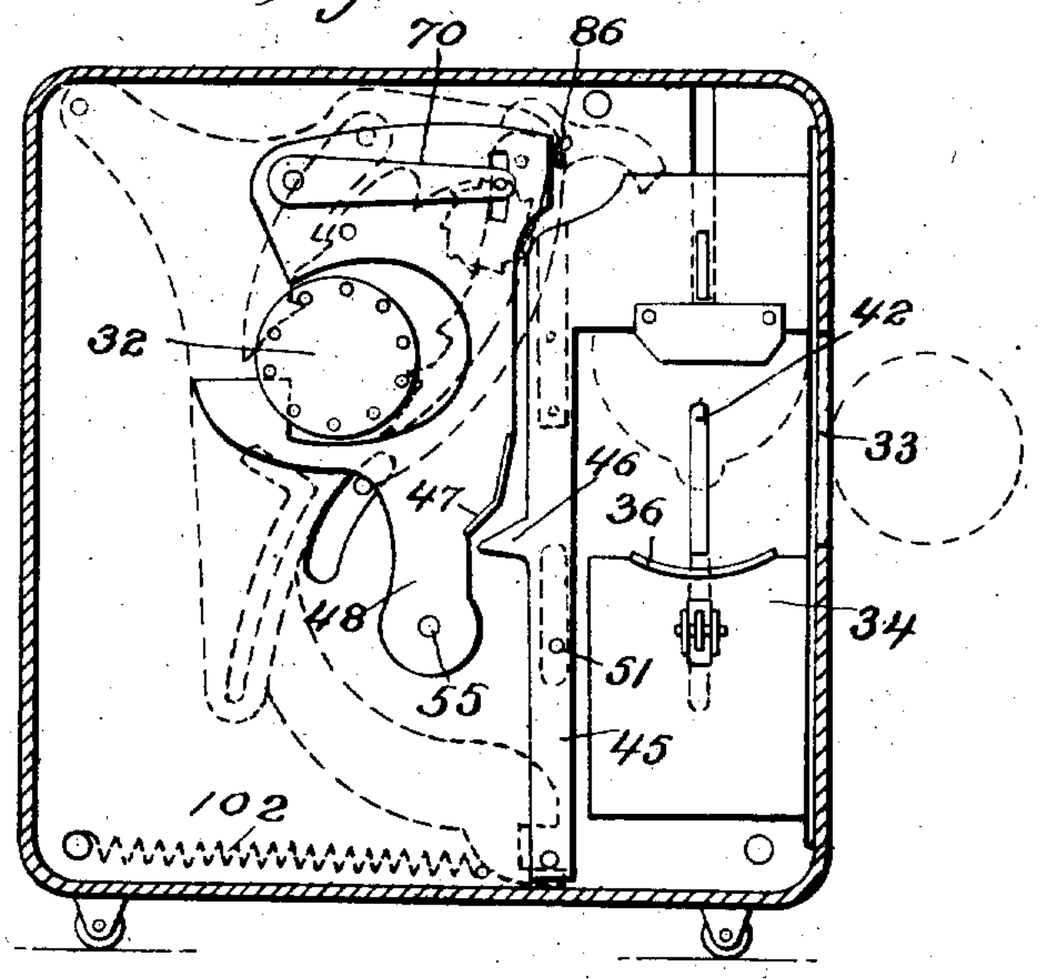


Fig. 13.



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5 SHEETS—SHEET 5.

Fig. 20.

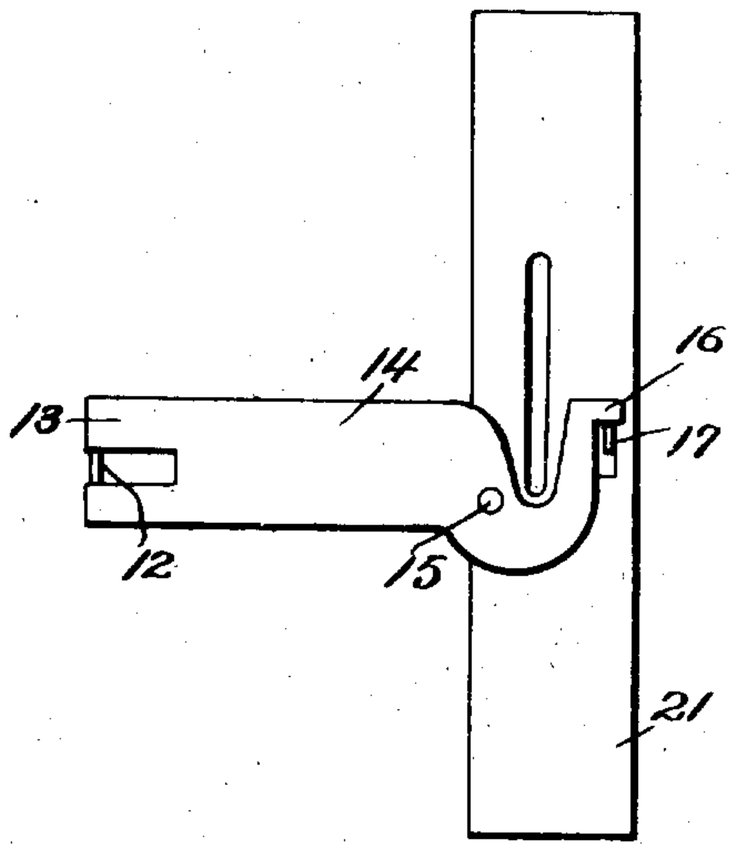


Fig. 14.

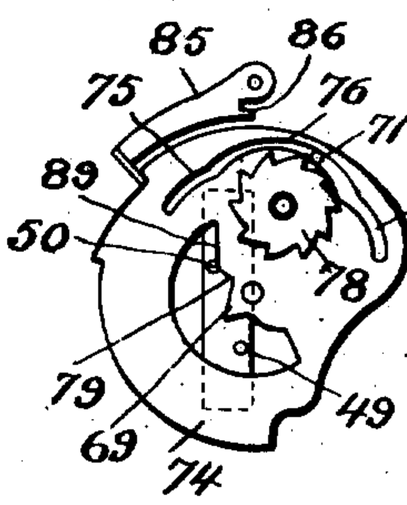


Fig. 15.

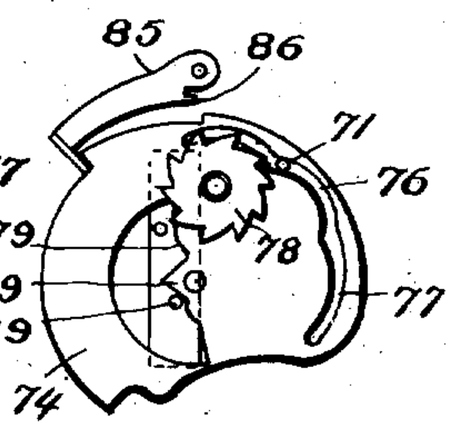


Fig. 19.

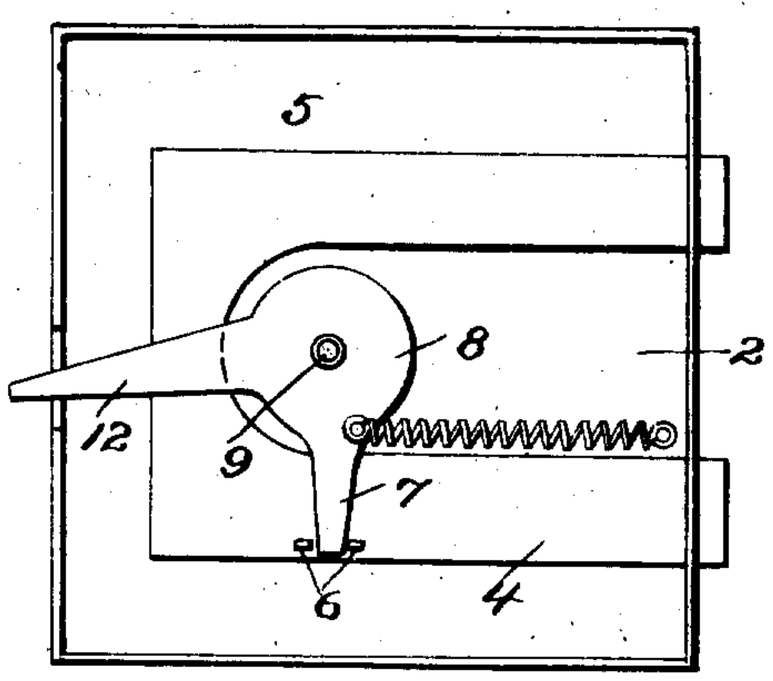


Fig. 16.

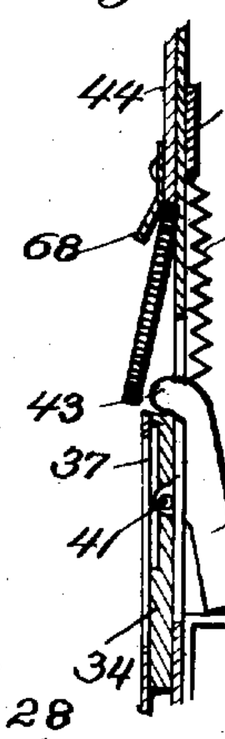


Fig. 17.

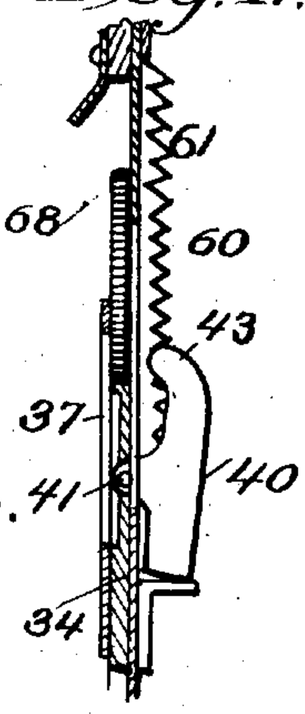
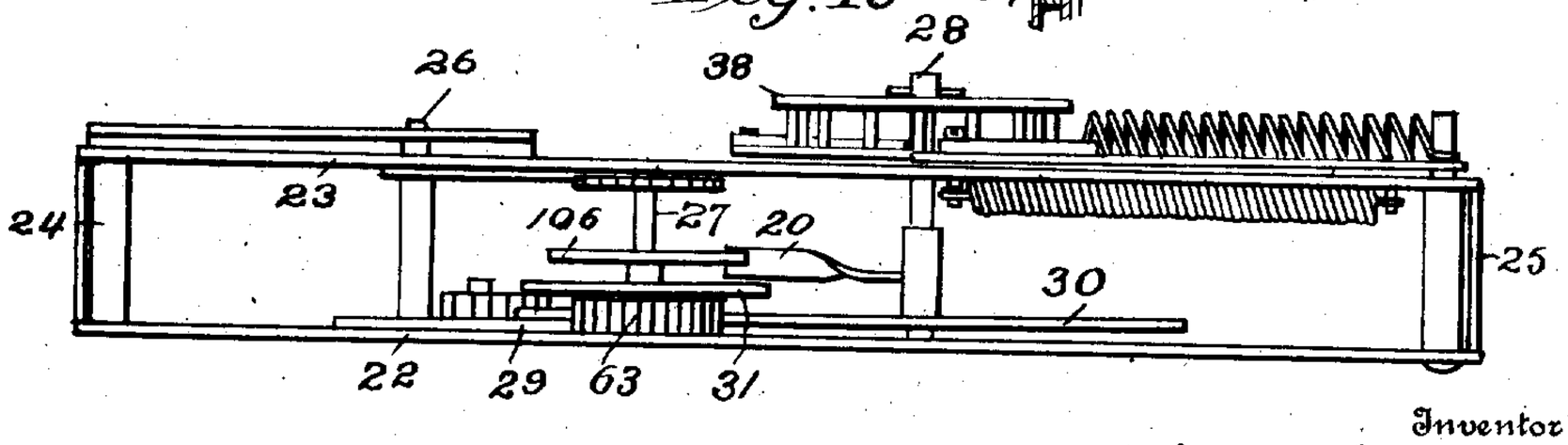


Fig. 18



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COIN-REGISTER.

973,981. Specification of Letters Patent. Patented Oct. 25, 1910.

Application filed April 4, 1910. Serial No. 553,245.

To all whom it may concern:

Be it known that I, CHARLES SCHMIDT, a citizen of the United States, residing at New Orleans, in the parish of Orleans and State of Louisiana, have invented certain new and useful Improvements in Coin-Registers; 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.

This invention relates to coin registers, and particularly to improved means for registering coins of various denominations inserted through the same slot, and a housing or bank associated therewith.

The object in view is the arrangement of registering mechanism for registering coins of various denominations upon the operation of a single lever and the insertion of the coins in the same slot.

A further object of the invention is the arrangement of means for receiving one-cent pieces, nickels, dimes, and quarters indifferently through the same slot and the value thereof registered upon the movement of a single lever after the insertion of each coin.

With these and other objects in view the invention comprises certain novel constructions, combinations, and arrangement of parts as will be hereinafter more fully described and claimed.

In the accompanying drawings: Figure 1 is a perspective view of the front of the bank, embodying the invention. Fig. 2 is a perspective view of the opposite side of the bank to that shown in Fig. 1. Fig. 3 is a section through the bank shown in Fig. 2, approximately on line 3—3 thereof, showing the locking mechanism thereof. Fig. 4 is a rear view of a base plate and registering mechanism removed. Fig. 5 is a view similar to Fig. 4, but with the top swinging plate thereof removed. Fig. 6 is a detail fragmentary view showing the pivotally mounted swinging rear plate and mechanism associated therewith for assisting and registering a twenty-five-cent piece. Fig. 7 is a view of the structure shown in Fig. 6, but moved to its extreme point. Fig. 8 is a detail fragmentary view of a lantern pinion and associated mechanism for assisting in registering a twenty-five-cent piece. Fig. 9 is another view of the mechanism shown in Fig. 8, but shown in an advanced or moved position. Fig. 10 is a detail fragmentary view of a pivotally mounted plate carrying a hook for partially rotating the lantern pinion shown in Figs. 8 and 9. Fig. 11 is a detail view of the combined hook and stop pivotally mounted upon the structure shown in Fig. 9. Fig. 12 is a rear view of the front plate and mechanism mounted thereon, the base plate being removed, said plate and said mechanism being shown in connection with the bank or housing. Fig. 13 is a view of the front plate, but with the base plate in position and the coin receiving member positioned thereon, together with associated parts adapted to be operated immediately upon the movement of the coin receiving member. Fig. 14 is a fragmentary view of the controlling mechanism for registering a ten-cent piece. Fig. 15 is a view of the same mechanism shown in Fig. 14, but moved to show the position thereof when registering a twenty-five-cent piece, said mechanism being adapted to register only twenty cents of the twenty-five-cent piece. Fig. 16 is a detail fragmentary sectional view showing the coin receiving slide and ejecting mechanism. Fig. 17 is a similar view to Fig. 16, but shown in the position before operation. Fig. 18 is an edge view of the registering mechanism removed, looking from the top. Fig. 19 is an interior view of the door, and locking mechanism applied to the door. Fig. 20 is a view of the pivotally mounted connecting member shown in association with the locking mechanism and coin registering mechanism, whereby the coin registering mechanism may lock and unlock the locking mechanism. Fig. 21 is a detail fragmentary view of the indicating disks, together with the locking lever associated therewith.

In the construction of self-registering banks and coin registers, various means have been arranged heretofore for directly registering coins of various denominations. Various means, as different sized chutes, have been employed, and a plurality of levers. In the present invention these objects are attained, together with others, particularly the advantage of registering coins of different sizes and denominations correctly and expeditiously upon the placing of the same into the same slot and working a single lever after the insertion of each coin,

the lever being operated the same distance for each coin indiscriminately. The mechanism is not only adapted to register coins as set forth, but to lock the bank and prevent any opening of the door thereof until a predetermined amount of money has been placed in the bank.

In order that the invention may be more clearly understood an embodiment of the same is shown in the accompanying drawings in which—

1 indicates a housing or bank of any desired structure as may be desired. Housing 1 is provided with a door 2 mounted upon suitable hinges 3. The door 2 has positioned on the interior thereof a sliding bolt or hinge member 4 positioned in slide ways 5. The bolt of member 4 is preferably bifurcated or arranged with the arms or bifurcations thereof spaced a considerable distance apart so as to lock the door at a plurality of points. Sliding member or bolt 4 is provided with lugs or turned-up members 6 for receiving an arm 7 formed integral with or rigidly secured to a disk shaped member 8 which is pivotally mounted upon door 2. A bolt or connecting member 9 is rigidly secured to disk 8 and extends through door 2 and is rigidly secured to or formed integral with a disk shaped member 10 and knob 11. Knob 11 is provided for unlocking the door when the same is not held in a locked position by the registering mechanism.

Rigidly connected with disk 8 is an arm 12 which extends beyond door 2, and engages part of housing 1 whenever the door is closed. When the door 2 is closed, knob 11 may be turned which will cause disk 8 to be moved and lever 7 to act against one of the lugs 6 for forcing out bolt 4 for engaging the housing 1. By the arrangement of lever 12 and the bifurcation of bolt 4 the door is locked against opening at three points, and cannot be opened even if hinges 3 are entirely removed. The outer end of lever 12 is arranged to be positioned in bifurcation 13 of a pivotally mounted connecting member 14. Pivotally mounted connecting member 14 is arranged to be pivoted at 15 to the side or edge of plate 24, and to extend from the front of the housing or bank 1 to the rear, so as to connect the locking mechanism with the registering mechanism. Lever 14 is formed with an extension 16 which is arranged to engage end 17 of a register locking lever 18. The register locking lever 18 is provided with lugs or teeth 19 and 20 for engaging the registering mechanism as will be hereinafter more fully described, whereby the lever may be moved for conveying motion to lever 14 for unlocking the door or locking the door, as may be desired.

Associated with the locking mechanism just set forth is a registering mechanism that acts as a registering mechanism and also means for operating the locking mechanism. The registering mechanism has a casing 21 having a front plate 22 and a base plate 23, together with edge plates 24 and 25. Journaled in front plate 22 and base plate 23 are a plurality of shafts 26, 27 and 28. Shaft 26 carries a disk 29 upon which numerals are placed to indicate dollars, disk 29 being known as the dollar disk. Associated with the dollar disk 29 is a one-cent disk 30 arranged substantially on the same plane and secured to shaft 28. Positioned intermediate disks 29 and 30 is a ten-cent disk 31 that is the disk with numerals placed thereon for indicating whenever a ten-cent piece has been registered. The ten-cent disk is rigidly secured to shaft 27 and is movable thereby. Rigidly secured to shaft 28 which carries the one-cent disk is a lantern wheel 32 which is operated when a one-cent piece has been placed in the machine for registering the same, and also is operated for registering a five-cent piece or five cents out of a quarter when a quarter has been placed in the register. When it is desired to register a one-cent piece the same is inserted into a slot 33 (Fig. 13) which guides the coin into a receiving sliding member 34. Lever 35 is depressed and mechanism hereinafter fully described will be operated for engaging lantern wheel 32 for turning the same one-tenth of a revolution. This will cause disk 30 to turn one-tenth of a revolution and register the one-cent piece. If a ten-cent piece is inserted in slot 33 lever 35 is operated and a different set of mechanism will be operated for rotating one-tenth of a revolution shaft 27 and disk 31. When a twenty-five cent piece is inserted through slot 33 and lever 35 is depressed lantern wheel 32 will be rotated a one-half revolution for registering five cents of the quarter, and then mechanism hereinafter fully described will be operated for causing shaft 27 to rotate two-tenths of a revolution, whereby twenty cents is registered. Thus it will be seen that when a quarter is inserted the one cent piece mechanism is operated for registering five one-cent pieces, and the ten-cent mechanism is operated for registering two ten-cent pieces, so that the total registration upon the insertion of a quarter is twenty-five cents. The ten-cent disk 31 is connected with dollar disk 29, as hereinafter fully described, so that when the same has made one revolution the dollar disk 29 will be moved forward or partially rotated sufficiently for indicating the next succeeding higher number for indicating that a dollar has passed through the register.

In order that the operation, as well as the construction of each part of the registering mechanism, may be more fully understood, the various parts will be described as operated in connection with the respective coins

inserted. First, assume that a one-cent piece has been passed through slot 33. The same will engage up-turned portions 36 of sliding member 34 and will be held in proper engagement therewith by base plate 23 and a coin guiding plate 37. After the coin has taken this position lever 35 is depressed, which upon being depressed will engage a pivotally mounted connecting lever 38. The pivotally mounted connecting lever 38 is pivotally mounted at 39 to the base plate 23, and extends from lever 35 which merely slides up and down one side of the housing 21 in suitable guides to the opposite side of the housing for engaging a coin ejecting member 40. Coin ejecting member 40 is pivotally mounted at 41 to slide 34 so that any sliding movement of member 40 will cause slide 34 to be moved accordingly. In order to permit a sliding movement of slide 34 base plate 23 is slotted at 42, Fig. 12, for permitting proper movement of the ejecting member 40. As soon as lever 35 is depressed and connecting lever 38 begins to act on ejecting member 40 the same will be caused to move slightly upon pivot 41 and cause end 43 to press against the one-cent piece just inserted through slot 33. This pressure against the coin will continue until the coin has been raised above the guiding plate 37 as shown in Fig. 16, whereupon the continued pressure on ejecting member 40 will cause point 43 to force the coin out of the register into the housing 1. After slide 34 has moved upward a short distance the coin will engage a sliding coin operated bar 44 and upon the continued upward movement of the slide 34 and coin will be raised a corresponding distance. As will be evident a one-cent piece will raise the coin sliding bar 44 a certain distance, a ten-cent piece a different distance, and a twenty-five-cent piece a still different distance. After the one-cent piece has been inserted through slot 33 and lever 35 depressed the mechanism just set forth will be operated and sliding bar 44 moved upward a short distance. Bar 44 is formed with a depending arm 45 which has secured thereto a lug 46 which acts as a cam for engaging a cam 47 upon pivotally mounted plate 48. Arm 45 is provided with pins 49, 50 and 51 respectively which project through base plate 23 and operate various mechanisms as hereinafter fully described, for registering a ten-cent piece or a a twenty-five-cent piece. Arm 45 is also provided with a pin 52 which is permitted a certain amount of loose motion in a recess 53 formed in a pivotally mounted lever 54 which will be hereinafter termed the twenty-five-cent lever, as the lever is operated when the twenty-five-cent mechanism is being operated. As the one-cent piece pushes sliding bar 44 upward, together with its arm 45, cam 46 will press against cam 47 and move plate 48 upon its pivotal securing member 55. Plate 48 will be moved upon its pivotal securing member 55 from the position shown in Figs. 4 and 8 until the same takes the position shown in Fig. 9. This movement will not affect the twenty-five-cent lever 54 which is not moved until a five or twenty-five-cent piece is being registered. The movement of plate 48 to this extent will cause hook 56 to engage one of the teeth or pins of lantern wheel 32 and turn the lantern wheel a one-tenth of a revolution as hook 56 is pivotally mounted at 57 to a pivotally mounted arm 48′, which in turn is pivotally secured at 48″ to base plate 23. Pivotally mounted arm 48′ is provided with a projection 49′ which is formed with an opening 49″ for accommodating pin 50′ secured to plate 48. Hook 56 is formed with a lug 58 which engages the lantern wheel 32 for assisting in preventing any movement thereof until positively moved. Plate 48 also is formed with a lug 59 which has one corner thereof projecting into lantern wheel 32 for preventing any movement of the lantern wheel until plate 48 has been moved upon its pivotal member 55. After the one-cent-piece has moved sliding bar 44 as far upward as possible the one-cent-piece will be ejected by ejector 40 and sliding bar 44 will be permitted to assume its original position, shown in Fig. 4, under the action of spring 60 which is secured to a lug 61 that passes through base plate 23 and is either rigidly secured to sliding bar 44, or formed integral therewith. Upon the return of sliding bar 44 cam 46 will also return to its original position and permit pivotally mounted plate 48 to assume its original position, as shown in Fig. 4, and lug 59 to engage lantern wheel 32. Upon moving lantern wheel 32 by hook 56 shaft 28 will be moved a one-tenth of a revolution and also disk 30, as disk 30 is rigidly secured to shaft 28 and shaft 28 is rigidly secured to lantern wheel 32. Disk 30 is known as the cent-disk and has provided on the face thereof numerals from zero to nine. When a second one-cent piece has been inserted through slot 33 and lever 35 operated the same mechanism will be moved and eventually lantern wheel 32 will be rotated a one-tenth of a revolution which will rotate disk 30 also a one-tenth of a revolution, which will indicate that another one-cent piece has been deposited in the bank. After nine one-cent-pieces have been deposited successively into the bank and registered in the manner just set forth, disk lever 30 will have been rotated nine-tenths of a revolution which will bring projection 62 in proximity to a star wheel 63 which is rigidly secured to shaft 27 so that when star wheel 63 is moved disk 31 will be moved.

Disk 31 is known as the dime or ten-cent-

disk. When the tenth one-cent-piece has been inserted through slot 33 and the lever 35 depressed the one-cent registering mechanism will be operated as above set forth for rotating one-cent disk 30 a one-tenth of a revolution. This will cause pin 62 to engage a projection 64 of an escapement lever 65 for raising the cam 66 out of engagement with star wheel 63. Star wheel 63 is arranged with ten points or teeth and when cam 66 has been raised out of engagement with wheel 63 by pin 62 projection 64 will engage one of the points or teeth of wheel 63 and move the same a one-tenth of a revolution. After pin 62 has thus moved escapement lever 65 a spring 67 will again force cam 66 into engagement with wheel 63 for preventing any further movement thereof. By this mechanism it will be observed that the tenth one-cent piece will cause the dime or ten-cent disk to move a one-tenth of a revolution, which will indicate that a dime or ten cents has been deposited in the bank, and at the same time the zero mark will appear opposite opening 68 in place of the numeral 9 which had indicated before that nine one-cent pieces had been deposited. Upon the insertion of a ten-cent-piece through slot 33 and the depression of lever 35 slide 34 will raise the ten-cent-piece and ejector 40 will press upon the under side thereof until the ten-cent-piece has been finally ejected as shown in Fig. 16, a retaining member or overhanging lip 68 preventing the removal of the coin until properly ejected. This upward movement of the ten-cent-piece will move sliding bar 44 upward in a similar manner to the way a one-cent-piece moves sliding bar 44 upward, but for a shorter distance. Arm 45 will be moved upward by the ten-cent-piece in a similar manner to the way it is raised by the one-cent piece, except for a shorter distance, and plate 48 will be moved similarly but for a shorter distance than when a one-cent-piece is inserted. Upon the movement of plate 48 a pivotally mounted arm 70 will be moved longitudinally. Arm 70 is provided with a pin 71 which projects through aperture 72 in plate 48 and also through a cut out portion of base plate 23. Pin 71 also projects through a guiding disk 74 and is arranged to move in slots 75, 76 and 77. Upon the longitudinal movement of arm 70 pin 71 moves past one of the teeth of ratchet wheel 78 and takes a position in slot 77. Upon the ten-cent-piece being ejected and plate 48 and arm 70 being permitted to assume their original positions, pin 71 will move back to its original position and during its return movement will engage one of the teeth of ratchet wheel 78 and move the ratchet wheel a one-tenth of a revoluton. Ratchet wheel 78 is rigidly secured to shaft 27 so that when pin 71 moves ratchet wheel 78 the distance of one tooth, shaft 27 will be rotated a one-tenth of a revolution. Ten-cent disk 31 is rigidly secured to shaft 27 so that when shaft 27 has been turned a one-tenth of a revolution the ten-cent disk 31 will be moved forward one number for indicating that ten cents has been deposited in the bank. In registering a ten-cent-piece arm 45 will not move upward as far as when registering a one-cent piece so that pin 50 will not engage a shoulder portion 79 upon guiding disk 74. When a one-cent-piece is being registered the arm 45 will move up sufficiently far for engaging shoulder portion 79 and move the guiding disk 74 to the position shown in Fig. 14. When disk 74 is in this position pin 71 may return to its original position upon a return movement of plate 48 without engaging any of the teeth on wheel 78, so that only a one-cent-piece will be registered.

When it is desired to register a quarter in the bank the same is inserted and lever 35 depressed. There is no separate system of mechanism for registering a quarter but when a quarter has been deposited in the bank and lever 35 depressed two ten-cent pieces will be registered and five one-cent-pieces, so that the registration will show twenty-five cents as having been registered. Upon the depression of lever 35 the twenty-five-cent-piece will be raised in a similar manner as the one-cent-piece or ten-cent-piece, but by reason of its size will raise sliding bar 44 a greater distance than either of the other coins heretofore registered. This upward movement of sliding bar 44 will move arm 45 which in turn will cause cam 46 to move plate 48 upon its pivot the same distance as if a one-cent-piece had been inserted into the bank. This pivotal movement of plate 48 will act upon pivotally mounted bar 48′ and cause hook 56 to move lantern wheel 32 a one-tenth of a revolution. Upon the continued upward movement of arm 45 pin 52 will engage quarter lever 54 and move the same to substantially the position shown in Fig. 7. This will cause pivotally mounted plate 80 to move downward and as the same moves downward the hook shaped projections 81 on hook arm 82 will engage the pins of lantern wheel 32 and rotate lantern wheel 32 two-tenths of a revolution. Upon plate 80 reaching its extreme downward movement a tooth 83 projecting therefrom engages lantern wheel 32 for preventing any accidental movement thereof. Upon the ejecting of the twenty-five-cent piece by ejector 40 plate 80 will be permitted to assume its original position, as shown in full lines in Fig. 4, which will cause tooth 83 to be disengaged from wheel 32 and will cause hook 84 to engage wheel 32 and move the same two-tenths of a revolution. It will be evident this will register on the one-cent disk which will consequently show that an

amount equal to five one-cent pieces has been inserted. At the same time that plate 80 returns for moving lantern wheel 32 for registering the last two cents of the five cents being registered, pin 71 will move wheel 78 two-tenths of a revolution which will register on the ten-cent disk the fact that an amount equal to two ten-cent pieces has been inserted into the bank. Upon the first movement of plate 48 outward arm 70 is moved bodily in a longitudinal direction and pin 71 is moved for being in a position to engage wheel 78 if either slot 75 or 77 is in position for permitting pin 71 to engage the wheel. Upon the upward movement of arm 45 when forced upward by the twenty-five-cent piece, pin 50 will engage shoulder 79 and partially rotate guiding disk 74 to substantially the position shown in Fig. 14. As arm 45 continues to move upward pin 49 engages shoulder 69 and continues to move guiding disk 74 until the same has assumed the position shown in Fig. 15. When in this position pin 71 is in position for moving wheel 78 the distance of two teeth, or in other words, two-tenths of a revolution. Upon the return movement of plate 48 to its original position arm 70 will be moved bodily in a longitudinal direction to its original position which carries therewith pin 71. This will cause pin 71 to engage wheel 78 and move the same as the pin moves through slot 75. Guiding disk 74 is held against rotation during the time that pin 71 is moving through slot 75 by pawl 85. Pawl 85 is provided with a projection 86 which is struck by plate 48 upon its return movement to its original position, and pawl 85 is moved upon its pivot by pressure from said plate. This will disengage pawl 85 from catches or notches formed in guiding plate 74 which guiding plate will then return to its original position under the tension of spring 87.

When a nickel or five-cent piece is inserted through slot 33 into the registering mechanism and lever 35 is depressed the sliding bar 44 will be raised a greater distance than when a ten-cent piece or when a one-cent piece has been inserted, but not as far as when a twenty-five cent piece has been inserted. The five-cent piece, however, will raise sliding bar 44 sufficiently to raise bar 45 a sufficient distance for causing pin 52 to move twenty-five-cent lever 54 from its normal position at the end of slot 87 to the opposite end of said slot and in position for moving downward through slot 88. However, a five-cent piece will not cause pin 54′ to move into slot 88 but only a twenty-five-cent piece. The movement of pin 54′ when a five-cent piece is inserted will pivotally move plate 80 until the same has taken a position substantially as shown in Fig. 7. This will cause hook 56 to move lantern wheel 32 a one-tenth of a revolution and cause hook member 82 upon its downward travel to move lantern wheel 32 two-tenths of a revolution, and also cause hook 84 upon its upward travel to move lantern wheel 32 two-tenths of a revolution. From this the sum total registered will be five cents. As sliding bar 45 is moved upward for causing cam 46 to move plate 48 upon its pivot 55 pin 50 will engage shoulder 79 and move guiding plate 74 until slot 76 is opposite the same. Upon the continued upward movement of arm 45 and pin 50, the pin slides along a flattened portion 89 and holds slot 76 in the position shown in Fig. 14. Pin 49 however will not quite reach shoulder 69 so that no further movement of the guiding disk 74 will be made and pin 71 upon its return stroke when disk 48 has been permitted to move to its original position will travel around ratchet wheel 78 back to its original position.

In operating the register by lever 35 connecting lever 38 is depressed against the action of spring 90. Lever 38 communicates motion to ejector 40 and from thence through various means heretofore described to plate 48 and connecting mechanism for registering the various coins as the same are inserted. Lever 38 is provided with an arm 91 in which a pin 92 is provided which projects through opening 93 in base plate 23. Pin 92 is designed to engage the edge of plate 48 for moving the same back to its normal position after it has been released, pin 92 receiving its power from spring 90 through lever 38. Connecting lever 38 is also provided with a substantially circular head 94 upon which teeth or notches 95 are formed for engaging a pawl 96 which is provided with a weighted end 97 and an extension 98 for engaging pin 99 positioned upon arm 45. Pin 91 is designed to extend through slot 100 formed in plate 23. When lever 35 is depressed and connecting lever 38 moved upon its pivotal mounting 39 the same will be permitted to freely move and raise ejector 40 until the coin has been ejected. Upon the raising of the coin by slide 34 the coin will be caused to engage sliding bar 44 which will raise the same, and also raise arm 45, which in turn will raise pin 99. Pin 99 will be raised to different heights according to the size of coin placed in the registering mechanism, but immediately upon the same being raised a short distance pawl 96 will engage notches or teeth 95 and slip over the same upon the continued movement of lever 38. Pawl 96 is pivotally mounted upon base plate 23 and will prevent any return movement of lever 38 until arm 45 has moved downward and pin 99 engaged lug 98 for raising pawl 96 out of engagement with teeth 95. By this mechanism lever 38 will not be moved back

to its original position and plate 48 also will not be moved back to its original position until after sliding bar 44 and arm 45 have been moved back under the action of spring 101 to their normal positions.

In connection with means for moving the various movable parts back to their original positions it is pointed out that a spring 102 is provided for holding the twenty-five-cent lever 54 in its normal elevated position as shown in Figs. 4 and 6. Hooks 84 and 85 are connected by a spring 103 for causing the same to positively engage the spokes or pins of the lantern wheel 32. In the movement of plate 48 the same is guided not only by its pivotal securing member 55 but also by a short guiding way 104 which is preferably merely a piece of base plate 23 pressed up.

In regard to the locking mechanism more particularly shown in Fig. 3 a locking lever 18 is provided which is pivotally secured to the front plate 22. Locking lever 18 is formed with lugs or teeth 19 and 20. Lug or tooth 20 is designed to fit into a notch 105 formed in a locking wheel 106 which is rigidly secured to shaft 27 that carries the dime disk 31. At the same time that tooth 20 enters notch 105 tooth 19 will enter a notch 107 formed in the dollar disk 29. Notch 105 in locking wheel 106 is designed to come opposite tooth 20 when the ten-cent disk is disclosing zero in opening 68. In regard to the dollar disk 29, if the same is designed to indicate Five Dollars the notch 107 will come opposite tooth 19 when Five Dollars is shown at opening 68. By this arrangement, notches 105 and 107 will come opposite their respective teeth with locking lever 18 at the same time when the bank has received the limit of the amount that may be registered. When notches 105 and 107 have come opposite their respective teeth on locking lever 18 door 2 may be opened by simply turning knob 11 which will cause arm 7 to move lug 6 and bolt 4. At the same time arm 12 will move connecting lever 14, which in turn will act upon end 12 of lever 18 for causing the same to move pivotally for causing teeth 19 and 20 to engage their respective notches 105 and 107. By this means whenever door 2 is opened the registering mechanism will be locked against operation.

The locking mechanism is designed to lock door 2 and to move the locking lever 18 out of engagement with disks 106 and 29. Upon the insertion of a ten-cent-piece or of ten one-cent pieces and the registering of the same the locking mechanism for holding the door locked will be prevented from being opened until the notches 105 and 107 have come opposite teeth 19 and 20 as above set forth. As above set forth a ten-cent piece when registered will lock the locking mechanism and when Five Dollars is shown the locking mechanism will be unlocked. It will of course be evident that the locking mechanism could be unlocked when the registering mechanism showed a greater or less sum than five dollars, by simply altering the number of notches 108 on pinion 109, which is rigidly connected with dollar disk 29. It will be noted that notch 107 comes opposite tooth 19 upon each rotation so that if there were only three notches 108 in pinion 109 the locking mechanism would be unlocked upon the registering mechanism disclosing Three Dollars. In regard to the rotation of the dollar disk 29 the same is moved by projection 110 engaging pinion 109 by entering notches 108 and moving the dollar disk one step forward, the drawing showing five notches 108 so that the projection 110 upon the dime disk will move pinion 109 one-fifth of a revolution. The dime disk is cut out on each side of the projection 110 for allowing pinion 109 to revolve. By this arrangement of associated mechanism for registering various size coins a complete registering mechanism is provided having interdependent parts for registering coins of different sizes, the same being received through the same slot and worked by the same lever or key.

A lever or key as 35 is used for operating the registering mechanism, but it will be evident that any other equivalent mechanism for depressing indicating lever 38 may be used, as for instance a wheel or crank with means for engaging lever 38 for depressing the same.

What I claim is:

1. In a registering mechanism, a coin receiving slide adapted to receive coins of different sizes, an independent means for registering the different sized coins, a sliding bar adapted to be moved by said coins, and means for moving said slide for causing said coins to move said sliding bar, whereby the particular mechanism for registering the particular coin moving said sliding bar will be operated.

2. In a coin registering mechanism a coin slide, a guide for holding the coin in said slide until positively ejected therefrom, a sliding bar raised by the coin moved by said slide, mechanism associated with said sliding bar for registering said coin irrespective of the size thereof, and means for moving said coin slide for causing the coin to raise said sliding bar.

3. In a coin registering mechanism, a coin receiving slide, a guide for holding a coin in said coin receiving slide, means for moving said slide, and a coin positioned therein, means for ejecting said coin, and single means for moving said slide and operating said ejector, a sliding bar moved by the coin in said slide when the coin is moved by said slide, and means associated with

said slide for registering said coin irrespective of the size thereof.

4. In a coin registering mechanism, a coin slide, a guide therefor, an ejector adapted to press against the coin at all times and to eject the said coin when said slide has moved said coin above said guide, a lever for moving said coin slide and acting on said ejector at the same time for causing said ejector to press against the coin in said coin slide, an operating lever for moving said first mentioned lever and means for registering said coin irrespective of the size thereof.

5. In a coin registering mechanism, a coin slide, means for moving said coin slide and the coin positioned therein, a sliding bar moved by the coin in said coin slide, a pivotally mounted plate moved by said sliding bar, and means associated with said pivotally mounted plate for registering the coin irrespective of the size thereof.

6. In a coin registering mechanism, a coin receiving means, means for moving said coin receiving means, a sliding member moved by said coin receiving means, a movable plate actuated by said sliding member moved by said coin, an indicating mechanism, means associated with said movable plate for actuating said indicating mechanism for indicating the value of the coin in said coin receiving means, and an ejector for ejecting said coin.

7. In a coin registering mechanism, a coin slide, means for ejecting a coin from said coin slide, means for moving said coin slide and operating said ejecting mechanism, a sliding bar operated by the coin in said coin slide, a movable plate actuated by said sliding bar, a plurality of indicating plates for indicating coins of various values, and means connecting said indicating plates and said movable plate for moving said indicating plates according to the value of the coin in said coin slide.

8. In a coin registering mechanism, a plurality of indicating disks, a coin slide adapted to receive and move a coin previous to its passage through said registering mechanism, a sliding bar movable by said coin in its travel, means connecting said indicating disk with said sliding bar, whereby when the sliding bar is moved some of said disks will be moved for registering the value of the coin moving said sliding bar, means for ejecting said coin, means for moving said coin slide, and means for ejecting said coin.

9. In a coin registering mechanism, a coin slide, a sliding bar associated therewith and adapted to be moved by said coin slide upon the insertion of a coin in said slide and movement of said slide, means for moving said slide for causing a coin placed therein to move said sliding bar, a cam projecting from said sliding bar, a pivotally mounted plate, a cam connected to said pivotally mounted plate and engaging the cam on said sliding bar, whereby when said sliding bar is moved said pivotally mounted plate will be moved, an indicating disk, a wheel connected to said indicating disk, and means associated with said pivotally mounted plate and engaging said wheel for moving the same upon the movement of said sliding bar by said coin.

10. In a coin registering mechanism, a coin slide, a pivotally mounted plate, means for connecting said coin slide and said plate upon the insertion of a one-cent piece and movement of said coin slide, means for moving said coin slide for moving said coin, a pivotally mounted lever connected with said plate, a pivotally mounted hook connected with said lever, a lantern wheel adapted to be engaged by said hook and moved a partial rotation upon the movement of said plate, and an indicating disk connected with said lantern wheel for indicating the registration of said coin.

11. In a coin registering mechanism, means for receiving a one-cent piece, a pivotally mounted plate, means for causing said one-cent piece to convey motion to said pivotally mounted plate, a disk for registering the one-cent piece upon the ejection of the same from said receiving means, a lantern wheel connected with said disk, and a hook associated with said pivotally mounted plate and adapted to receive motion therefrom for turning said lantern wheel upon the movement of said plate.

12. In a coin registering mechanism, a slide for receiving a coin, means for moving said slide, a sliding bar moved a predetermined distance when a one-cent piece has been placed in said coin slide and said coin slide is moved, a pivotally mounted plate moved by said sliding bar, a predetermined distance when a one-cent piece is actuating said sliding bar, and means associated with said pivotally mounted plate for registering said one-cent piece.

13. In a coin registering mechanism, a coin receiving member, means for operating said coin receiving member, a pivotally mounted plate adapted to be moved a predetermined distance by a one-cent piece in said coin receiving member when the same has been moved, a pivotally mounted arm loosely connected with said plate, a lantern wheel, means mounted on said pivotally mounted arm and arranged to engage said lantern wheel for moving the same when said pivotally mounted plate has been moved, and a connecting plate for indicating the registration of said one-cent piece upon the movement of said pivotally mounted plate by said one-cent piece.

14. In a coin registering mechanism, a coin slide, means for moving said coin slide,

a sliding bar adapted to be moved upon the insertion of a one-cent piece in said coin slide and the movement of said coin slide, a cam connected with said slide, a pivotally mounted plate arranged to be engaged by said cam and moved thereby upon the movement of said sliding bar, an indicating disk, a lantern wheel rigidly connected with said indicating disk, and means associated with said pivotally mounted plate for moving said lantern wheel when said plate has been moved for registering said coin.

15. In a coin registering mechanism, a coin receiving slide, a sliding bar adapted to be moved a certain distance, thereby upon the insertion of a one-cent piece, a cam connected with said sliding bar, a pivotally mounted plate adapted to be actuated by said cam, a cam projecting from said pivotally mounted plate and connecting said pivotally mounted plate and the cam on said sliding bar, a disk for indicating the coin inserted into said slide, a wheel connected with said disk, and means associated with said plate for rotating said wheel, a predetermined distance as determined by the length of movement of said sliding bar.

16. In a coin registering mechanism, a coin slide, a sliding bar adapted to be moved by said coin slide upon the movement thereof after a coin has been placed therein, a pivotally mounted plate associated with said sliding bar, means for moving the same a predetermined distance upon the insertion of a one-cent piece in said coin slide, a pivotally mounted hook associated with said pivotally mounted plate, a wheel adapted to be engaged by said hook, and moved thereby, a predetermined distance upon the movement of said pivotally mounted plate, and an indicating disk connected with said wheel for indicating the registration of said one-cent piece.

17. In a coin registering mechanism, a coin slide, means for moving said coin slide, a sliding bar adapted to be moved by said coin a predetermined distance upon the insertion of a one-cent piece in said coin slide, a pivotally mounted plate, means connecting said pivotally mounted plate and said pivotally mounted bar for moving the same a predetermined distance upon the insertion of a one-cent piece in said coin slide and the movement of said coin slide, a pivotally mounted arm, means connecting said pivotally mounted arm and said pivotally mounted plate whereby a pivotal motion will be conveyed to said pivotally mounted arm, a hook pivotally secured to said pivotally mounted arm, a lantern wheel adapted to be engaged by said hook and rotated a predetermined distance upon the movement of said pivotally mounted plate, means for locking said lantern wheel against rotation when not moved by said hook, and an indicating disk connected with said lantern wheel for indicating the coin being registered.

18. In a coin registering mechanism, a coin slide, means for operating said coin slide, a sliding bar adapted to be moved a predetermined distance upon the insertion of a one-cent piece in said coin slide and the movement of said coin, a pivotally mounted plate adapted to be moved by said sliding bar, a hook associated with said pivotally mounted plate, a lantern wheel adapted to be rotated by said hook, a lug projecting from said pivotally mounted plate and engaging said lantern wheel for preventing any movement thereof except when actuated by said hook, and an indicating disk secured to said lantern wheel for indicating the size of the coin being registered.

19. In a coin registering mechanism, a coin slide, means for operating said coin slide, a sliding bar adapted to be moved a predetermined distance upon the movement of said coin slide after a five-cent piece has been placed therein, a pivotally mounted plate moved by said slide, an indicating disk, a lantern wheel connected with said indicating disk, a hook associated with said pivotally mounted plate and adapted to move said lantern wheel one step upon the movement of said pivotally mounted plate, a swinging plate, means for moving said swinging plate after said pivotally mounted plate has been moved, and means connected with said swinging plate to move said lantern wheel two steps upon the downward swinging movement of said swinging plate and two steps upon the upward swinging movement of said swinging plate, whereby said lantern wheel will be moved by all of said hooks five steps forward for registering said five-cent piece on said disk.

20. In a coin registering mechanism a reciprocating coin slide, means for moving said coin slide, a sliding bar moved a predetermined distance upon the movement of said reciprocating coin slide after a five-cent piece has been placed therein, a pivotally mounted plate moved by said sliding bar, an indicating disk, a wheel connected with said indicating disk, a hook connected with said pivotally mounted plate, and arranged to move said wheel a one-tenth of a revolution upon the movement of said pivotally mounted plate, a swinging plate, a pair of hook arms connected with said swinging plate and arranged so that one of said arms will move said wheel two-tenths of a revolution upon the downward movement of said swinging plate, and the other of said arms will move said wheel two-tenths of a revolution upon the return movement of said pivotally mounted plate, and

means connecting said swinging plate and said sliding bar for causing said pivotally swinging plate to be moved immediately after said pivotally mounted plate has been moved.

21. In a coin registering mechanism, a coin slide, means for moving said slide, a sliding bar associated with said coin slide and adapted to be moved a predetermined distance upon the movement of said coin slide after a five-cent piece has been placed therein, a pivotally mounted plate moved by said coin slide, a hook associated with said pivotally mounted plate, a lantern wheel adapted to be moved a one-tenth revolution by said hook, an indicating disk connected with said lantern wheel and indicating the movement thereof, a swinging plate, an arm connecting said sliding bar and said swinging plate after said pivotally mounted plate has been moved, a hook connected with said swinging plate and arranged to engage said lantern wheel upon the downward swinging movement of said swinging plate for moving the lantern wheel two-tenths of a revolution, and a second hook connected with said swinging plate for engaging said lantern wheel and moving the same two-tenths of a revolution upon the return movement of said swinging plate, means for returning said pivotally mounted plate to its original position after the hook associated therewith has moved said lantern wheel, and means for returning said swinging plate to its original position after the hooks carried thereby have moved said lantern wheel.

22. In a coin registering mechanism, a coin slide, means for moving said coin slide, a sliding bar adapted to be moved a predetermined distance by said coin slide upon the movement of said coin slide after a five-cent piece has been placed in said coin slide, a pivotally mounted plate adapted to be moved by said sliding bar, a pivotally mounted hook adapted to be moved by said pivotally mounted plate, a wheel adapted to be engaged by said hook and moved a one-tenth of a revolution upon the movement of said pivotally mounted plate, a disk connected with said wheel for indicating the amount being registered, a swinging plate, a pivotally mounted hook mounted on said swinging plate for moving said wheel two-tenths of a revolution upon swinging in one direction, a second pivotally mounted hook connected with said swinging plate for moving said wheel a two-tenths of a revolution upon the return swinging movement of said swinging plate, a pivotally mounted lever adapted to swing said swinging plate, means connecting said pivotally mounted arm and said sliding bar for causing said pivotally mounted arm to swing said swinging plate in one direction, and resilient means for moving said pivotally mounted arm for swinging said swinging plate in the opposite direction.

23. In a coin registering mechanism a coin slide, means for moving said coin slide, a sliding bar adapted to be moved a predetermined distance by said coin slide upon the movement thereof after a ten-cent piece has been inserted in said coin slide, a pivotally mounted plate adapted to be moved by said sliding bar, an arm pivotally secured to said pivotally mounted plate and moved thereby, a pin projecting from said arm, a wheel adapted to be engaged by said pin and moved thereby upon the return movement of said pivotally mounted plate, means for returning said pivotally mounted plate upon the ejection of said coin from said coin slide, means for holding said pin in engagement with said wheel during the return movement of said pivotally mounted plate for causing said wheel to be moved a predetermined distance, and an indicating disk connected with said wheel for indicating the value of the coin registered.

24. In a coin registering mechanism, a coin slide, means for moving said coin slide, a sliding bar arranged to be moved a predetermined distance upon the movement of said coin slide after a ten-cent piece has been inserted therein, means for ejecting said coin after the same has been moved a predetermined distance, a pivotally mounted plate adapted to be operated by said sliding bar, an arm connected with said pivotally mounted plate, a pin projecting from said arm, a guide for said pin, a toothed wheel arranged to be engaged by said pin and moved thereby upon the return movement of said pivotally mounted plate and said arm, means for moving said pivotally mounted plate and said arm to their original positions, and an indicating disk connected with said toothed wheel for registering said ten-cent piece.

25. In a coin registering mechanism, a coin slide, means for moving said coin slide, a sliding bar adapted to be moved a predetermined distance upon the movement of said coin slide after a ten-cent piece has been placed therein, a pivotally mounted plate adapted to be operated by said sliding bar, a pivotally mounted arm connected with said pivotally mounted plate, a pin projecting from said pivotally mounted plate, a guiding plate formed with a plurality of slots for guiding said pin, said pin being adapted to operate in one of said slots upon the insertion of a ten-cent piece, a toothed wheel adapted to be engaged by said pin and moved thereby upon the return movement of said pivotally mounted plate, means for causing said pivotally mounted plate to return to its original position after having been pivotally moved by said sliding bar, and an indicating disk connected with

said toothed wheel for indicating the registration of said ten-cent piece upon the movement of said toothed wheel.

26. In a coin registering mechanism, a coin slide, means for moving said coin slide, a sliding bar arranged to be moved a predetermined distance upon the movement of said slide after a ten-cent piece has been inserted therein, a pivotally mounted plate adapted to be moved by said sliding bar, means for returning said pivotally mounted plate after said coin has been ejected, an arm secured to said pivotally mounted plate, a pin projecting from said arm, a toothed wheel adapted to be engaged by said pin and moved a predetermined distance upon the return movement of said pivotally mounted plate, a guide formed with a plurality of arc shaped slots for guiding said pin, said pin operating in one of said slots when a ten-cent piece has been moved to raise said sliding bar, and an indicating disk connected with said toothed wheel for indicating the registration of said ten-cent piece.

27. In a registering mechanism, a coin slide, means for moving said slide, a sliding bar adapted to be moved a predetermined distance upon the movement of said coin slide after a twenty-five-cent piece has been inserted therein, a pivotally mounted plate adapted to be moved by said sliding bar, a lantern wheel, an indicating disk connected with said lantern wheel, a hook moved by said pivotally mounted plate adapted to engage said lantern wheel and move the same a one-tenth of a revolution, a swinging plate, means connecting said sliding bar and said swinging plate in one direction for swinging said swinging plate in the opposite direction, a hook arm connected with said swinging plate and arranged to engage said lantern wheel and adapted to move said lantern wheel two-tenths of a revolution upon the movement of said swinging plate in one direction, a second hook arm connected with said swinging plate and adapted to move said lantern wheel two-tenths of a revolution when said plate has been moved in the opposite direction, an arm pivotally connected with said pivotally mounted plate, a pin projecting from said arm, a toothed wheel adapted to be engaged by said pin, a guide for causing said pin to engage said toothed wheel for causing said toothed wheel to be moved two-tenths of a revolution upon the return movement of said pivotally mounted plate, means for returning said pivotally mounted plate, and a disk connected with said toothed wheel for indicating the rotation thereof.

28. In a coin registering mechanism, a coin slide, means for moving said coin slide, a sliding bar adapted to be moved a predetermined distance by said coin slide upon the movement thereof after a twenty-five-cent piece has been inserted therein, a pivotally mounted plate actuated by said pivotally mounted bar, a one-cent indicating disk, means associated with said pivotally mounted plate for moving said one-cent disk five points upon the movement of said pivotally mounted plate, a pivotally mounted arm secured to said pivotally mounted plate, a pin projecting therefrom, a toothed wheel adapted to be engaged by said pin, means for causing said pin to move said toothed wheel two-tenths of a revolution upon the return movement of said pivotally mounted plate, means for returning said pivotally mounted plate, and a ten-cent disk connected with said toothed wheel, whereby upon the movement of said sliding bar said ten-cent disk will be moved for indicating the insertion of the value of twenty cents and said one-cent disk will be moved for indicating the value of five cents.

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

CHARLES SCHMIDT.

Witnesses:

HOWELL CARTER, Jr.,

F. A. LAMBERT.