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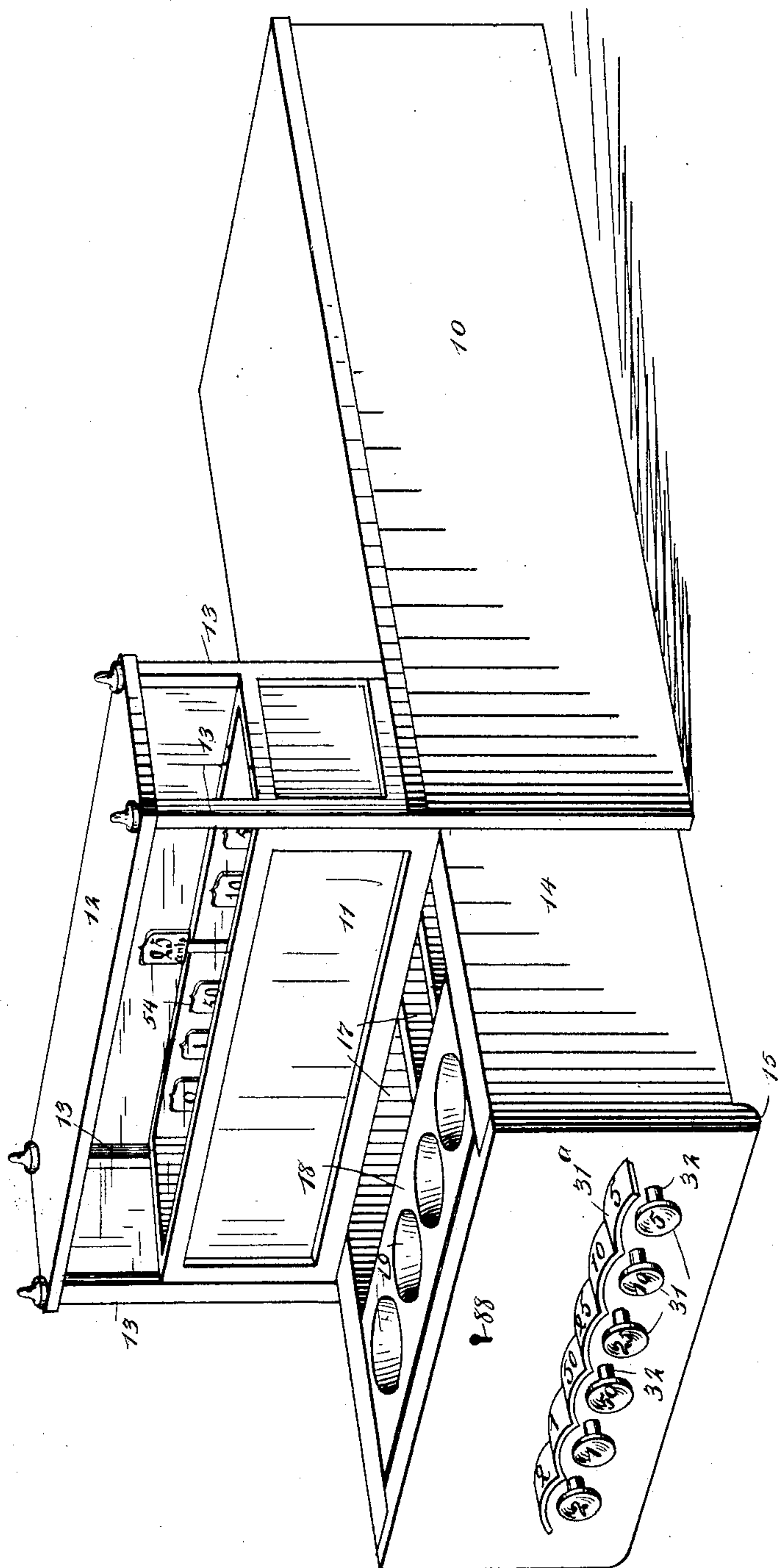
4 Sheets—Sheet 1.

C. J. PASSICK.
CASH REGISTER.

No. 502,580.

Patented Aug. 1, 1893.

Fig. 1.



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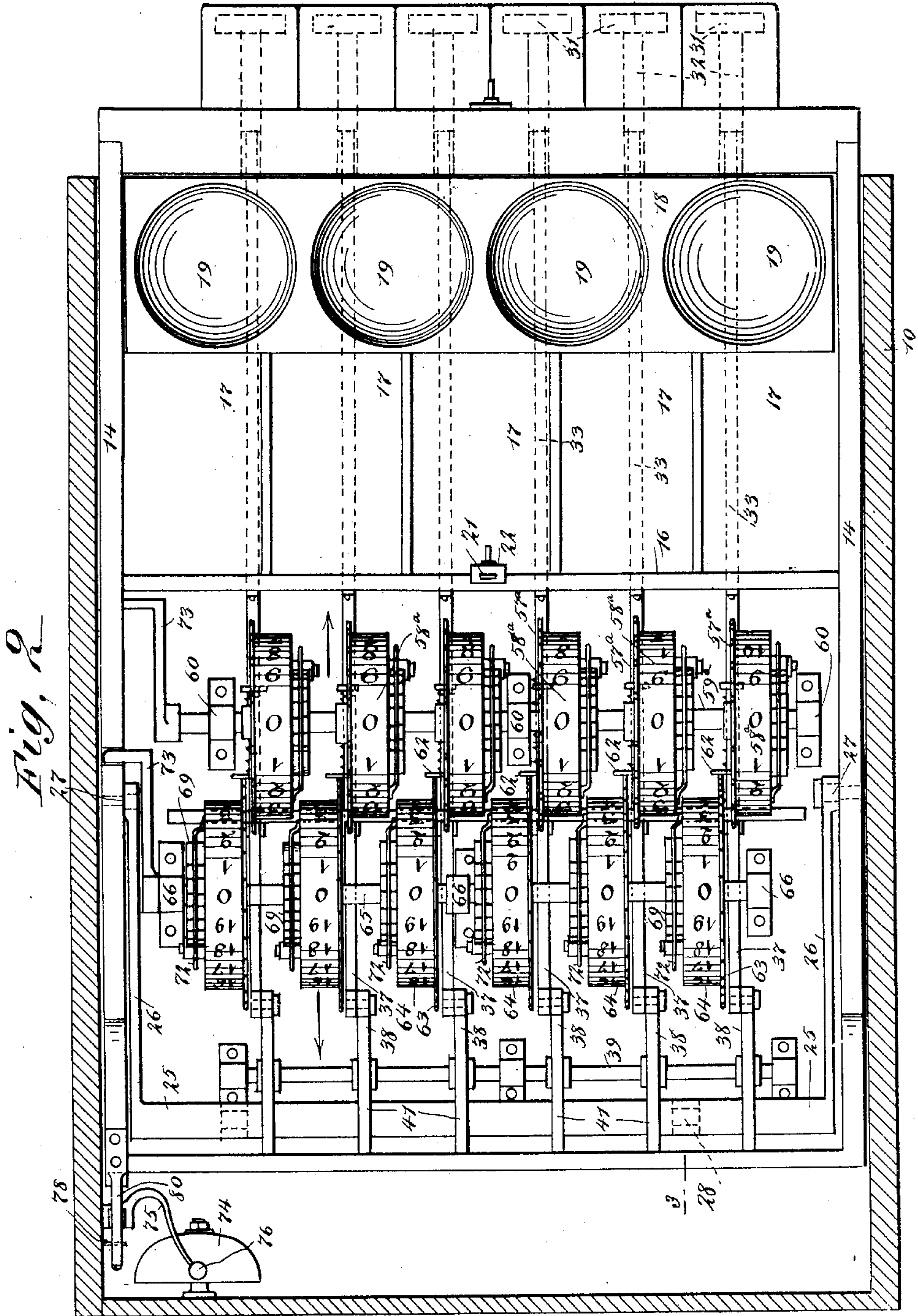
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(No Model.)

4 Sheets—Sheet 3.

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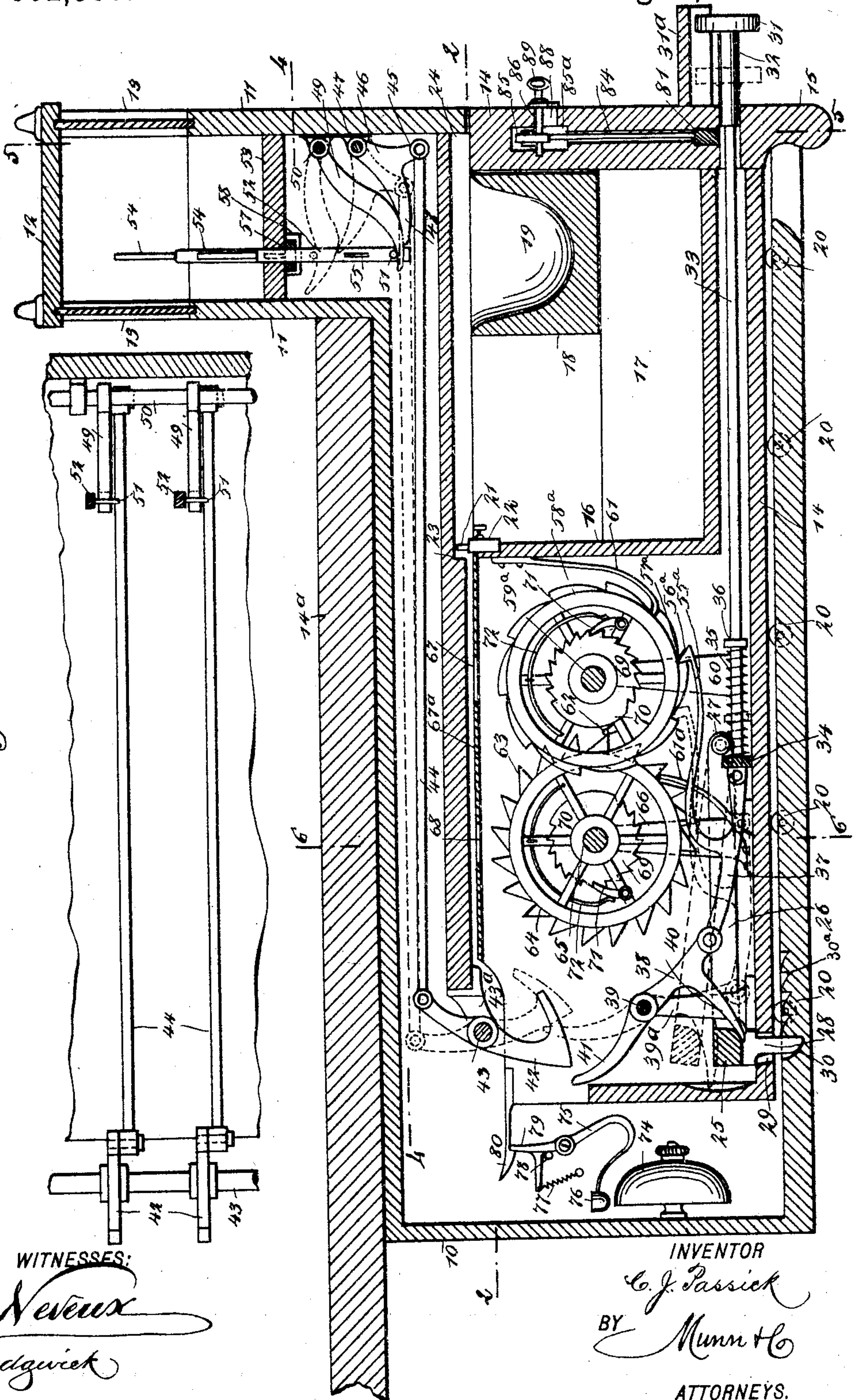
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Fig. 3

Fig. 4

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4 Sheets—Sheet 4.

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Fig. 5

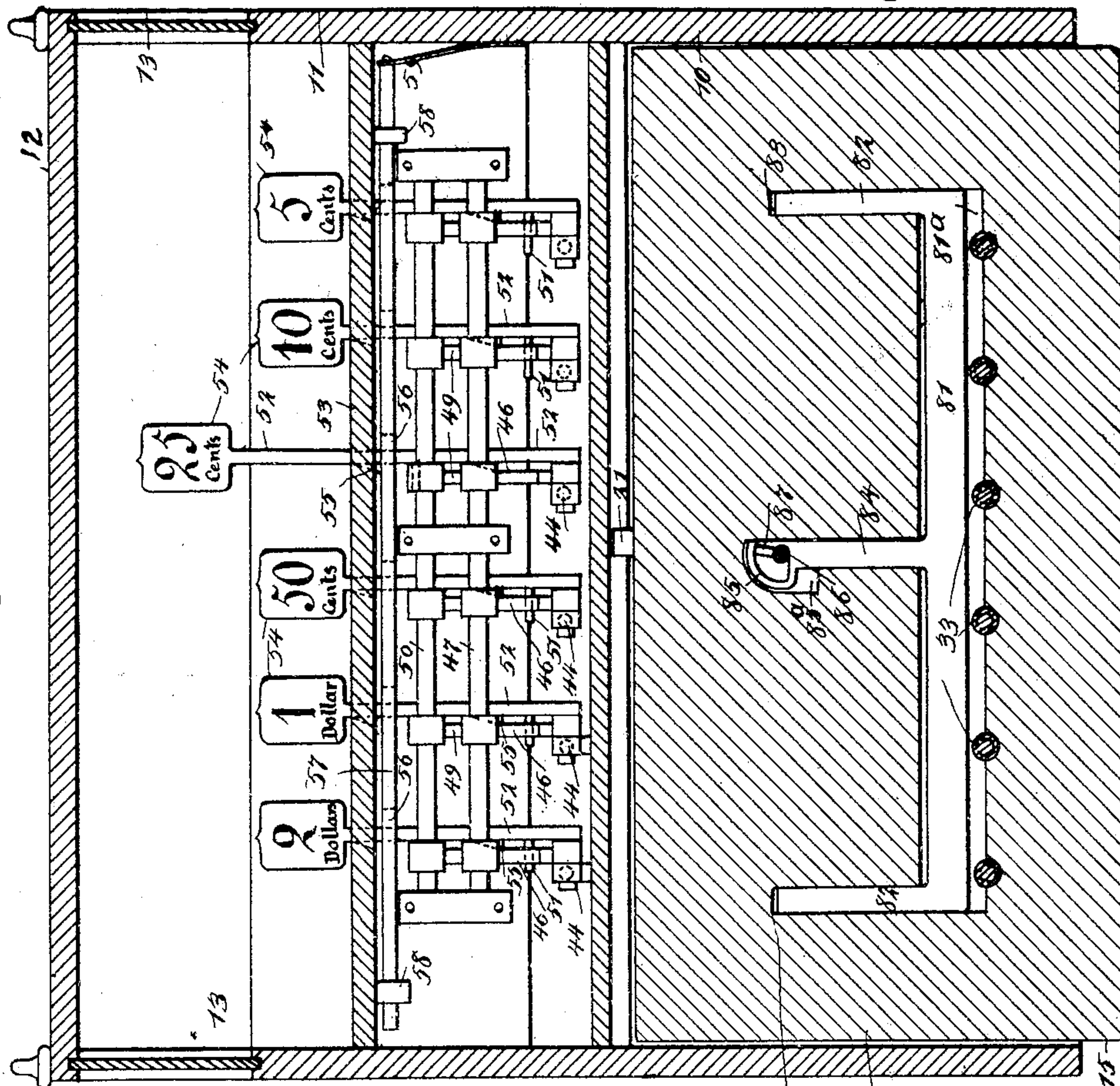
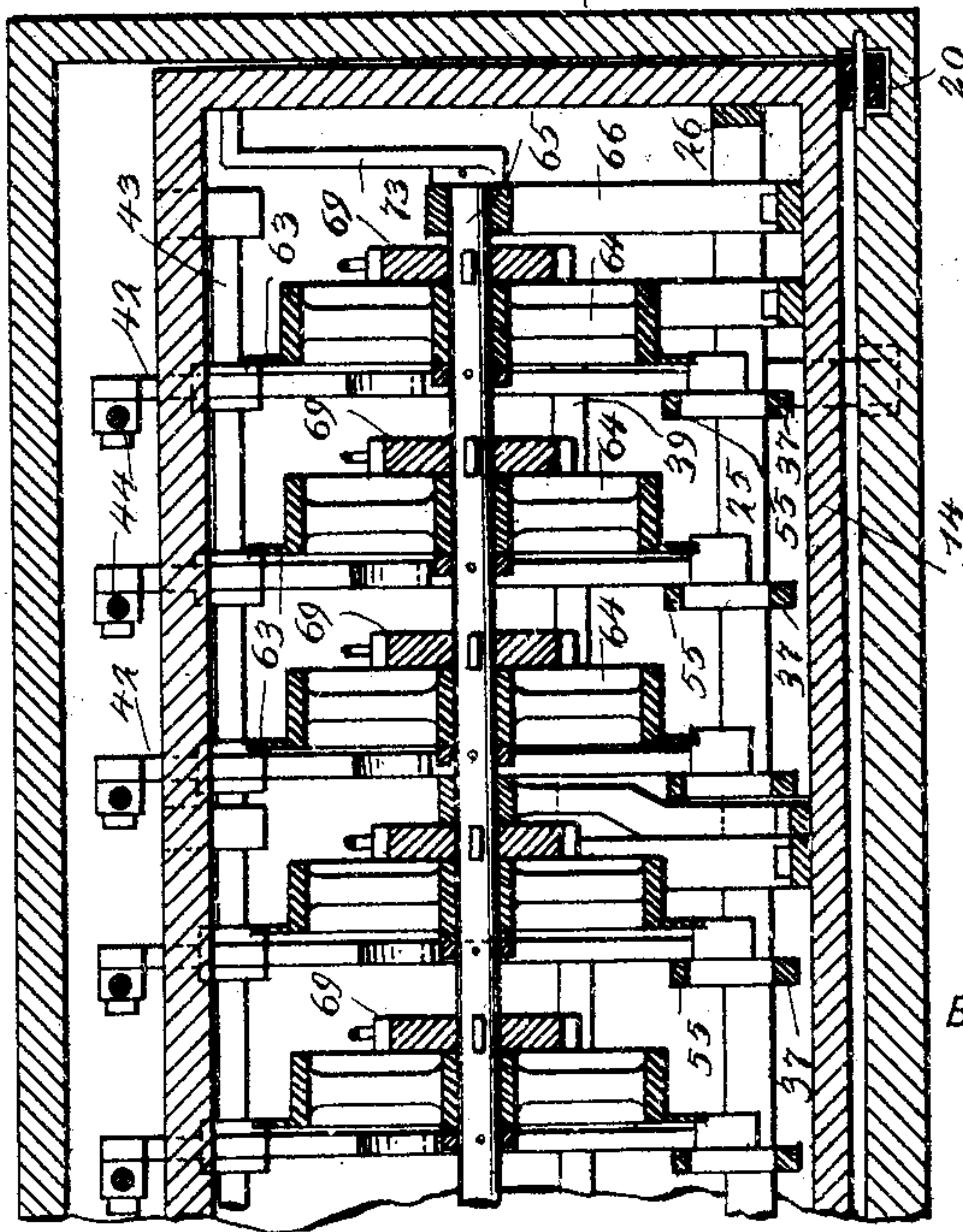


Fig. 6



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UNITED STATES PATENT OFFICE.

CHARLES J. PASSICK, OF SEWARD, NEBRASKA.

CASH-REGISTER.

SPECIFICATION forming part of Letters Patent No. 502,580, dated August 1, 1893.

Application filed February 23, 1893. Serial No. 463,420. (No model.)

To all whom it may concern:

Be it known that I, CHARLES J. PASSICK, of Seward, in the county of Seward and State of Nebraska, have invented a new and Improved
5 Cash-Register, of which the following is a full, clear, and exact description.

My invention relates to improvements in cash registers; and the object of my invention is to produce a simple and convenient cash
10 register which may be secured beneath a counter, which is adapted when operated to display to a purchaser the amount of his purchase and also register the amount, which is provided with a cash drawer which can only
15 be opened when one of the registering buttons is pressed, and which in general is adapted to serve the purposes of an ordinary cash register and is constructed so as to operate positively and with little likelihood of getting
20 out of order.

To this end my invention consists in certain features of construction and combinations of parts, as will be hereinafter described and claimed.

25 Reference is to be had to the accompanying drawings forming a part of this specification, in which similar figures of reference indicate corresponding parts in all the views.

Figure 1 is a perspective view of the cash
30 register with the cash drawer open. Fig. 2 is a sectional plan on the line 2—2 in Fig. 3. Fig. 3 is a vertical longitudinal section on the line 3—3 in Fig. 2. Fig. 4 is a broken sectional plan on the line 4—4 in Fig. 3 and shows
35 in detail the mechanism for hoisting one of the display signs. Fig. 5 is a cross section on the line 5—5 in Fig. 3; and Fig. 6 is a broken cross section on the line 6—6 in Fig. 3.

The register is provided with a suitable case
40 10 which has at one end and on the upper side a vertical extension 11 this being covered by a flat top 12 supported on posts 13, and the upper portion of the extension is open or provided with transparent panels, as shown in
45 Fig. 1, so that the display signs within the case may be distinctly seen by the purchaser. The construction and shape of the case described enables the body of the case to be secured beneath the counter 14^a, as shown in
50 Fig. 3, while the higher portion 11 will project above the counter at one edge. The case is provided with a sliding drawer 14 adapted

to be pulled out of the front end of the case and having on its lower edge a hand hold 15, which may be grasped when the drawer is to
55 be opened, as hereinafter described.

In the front end of the drawer 14 is a cash till 16, having in its lower portion compartments 17 for bills and having in its upper
60 portion a sliding block 18 with pockets 19 therein for small change, this arrangement being substantially like an ordinary till. The drawer is held to run on rollers 20 which are journaled in the bottom of the case 10 and the movement of the drawer is limited by the bolt
65 21 of a lock 22, which lock may be of any suitable construction and it is secured to the back of the till 16, near the top, so that the bolt 21 may project above the till so as to strike shoulders 23 and 24 in the case 10, these shoulders
70 preventing the drawer from being pushed too far in and being pulled too far out.

The drawer is held locked by a locking bar 25, see Figs. 2 and 3, which is arranged in the
75 back portion of the drawer so as to swing vertically and is provided with side arms 26 which are pivoted on opposite sides of the drawer, as shown at 27, and on the under side of the locking bar is a bolt 28 adapted to swing downward through a recess 29 and enter
80 a recess 30 in the case bottom, so that when the bolt is in the latter recess, the drawer is securely fastened. The case bottom is also provided in front of the recess 30 with notches
85 30^a adapted to catch the bolt 28 in case the drawer is not tightly closed and prevent it from being opened without pushing one of the buttons 31. The drawer is unlocked, the amount of a purchase registered, and the amount of the purchase displayed by pressing
90 upon one of the sliding buttons 31 on the front of the drawer 14, these buttons being arranged in a row and each button representing a certain value in money that will appear
95 hereinafter, and each button has an inwardly extending shank 32 which slides in the front of the drawer. The buttons have above them a curved guard plate 31^a which is marked to indicate the value of the buttons, the buttons and guard plates in the drawings being
100 marked "5," "10," "25," and "50," representing cents, and "1" and "2," representing dollars, but this arrangement may be carried out to any necessary or desired extent. The guard

plate 31^a enables the right button to be quickly located and it also prevents the buttons from being accidentally pressed inward by a person who may bring his body into contact with the front of the machine. Each button connects with a slide rod 33 extending inward along the bottom of the drawer 14 and held at its inner end to slide in a guide 34, and the slide rod and button are normally pressed forward by a coil spring 35 which is held between the guide 34 and a collar 36 on the slide rod. The inner end of each slide rod is pivoted to a rearwardly extending arm 37 which is curved slightly upward and it is also pivoted at its rear end to a lever 38 this being fulcrumed on a cross shaft 39 held in supports 39^a, and there is a lever 38 for each slide rod, as will appear by reference to Fig. 2. Each lever 38 has on its back side and near its lower end a rearwardly extending arm 40 which projects beneath the locking bar 25, and it will be seen that when the slide rod is pressed inward the lower end of the lever 38 will swing back carrying the arm 40 with it, and the latter by swinging beneath the locking bar 25, lifts the locking bar so as to raise the bolt 28 from the recess 30 and permit the opening of the drawer 14. The upper portion 41 of each lever 38 is adapted to strike, when the lever is tilted, a swinging arm 42 which is held in a nearly vertical position and is pivoted near the center on a shaft 43 in the upper back portion of the drawer, the shaft being supported on hangers 43^a, see Fig. 3, and this portion of the drawer is left open to permit the arm 42 to swing. The upper end of each arm is pivoted to a pitman 44 which extends longitudinally above the drawer 14 to a point near the front end of the machine where it is pivoted to one arm 45 of a bell crank 46, this being pivoted on a shaft 47 which is hung on the inner side and front portion of the case 10, and the other arm 48 of this bell crank extends beneath a swinging arm 49 pivoted on a shaft 50 which is held parallel with and a little above the shaft 47. Each arm 49 is curved downward and backward and its free end extends beneath a pin 51 on the shank 52 of one of the display signs 54, there being a sign for each button and the signs are marked to correspond with the sum represented by the button 31, as shown clearly in Fig. 1. The shanks 52 slide in a transverse partition 53 in the upwardly extending part 11 of the main case. Each shank 52 is provided on one side with an angular stud 55, the widest portion being at the lower end, and the stud slides through the slot 56 in a spring bar 57 which is held to slide in keepers 58 on the under side of the partition 53, and the bar is normally pulled by a spring 59 at one end so as to draw the bar beneath a stop 55 when a shank 52 is raised.

It will be seen then that when one of the buttons 31 is pressed inward the swinging of the lever 38 will tilt the arm 42, pull the pitman 44 and actuate the lever 46 and arm 49 so as to lift

the shank 52 and sign 54, thus throwing the sign into the upper open portion of the case where it may be distinctly seen, and the stop 55 will hold the sign in an elevated position. When another sign is raised, the stop 55 on the shank of the latter sign will throw the spring bar 57 against the tension of its spring with sufficient force to release the first shank and permit the sign first raised to drop.

The movement of the slide rod 33, besides unlocking the drawer and exhibiting the amount of a purchase, also registers the amount, and to this end each arm 37 is provided with a forwardly extending spring pawl 55^a having a tooth 56^a at its free end, which tooth is adapted to engage one of the teeth 57^a of a number wheel 58^a, and there is a wheel 58^a above each slide rod, as shown in Fig. 2. The number wheels 58^a are journaled loosely on a shaft 59^a which is held in hangers or supports 60 and the wheels are numbered on their faces, as shown in Fig. 2, so that as they are moved tooth by tooth a progressively increasing number will be exhibited on the upper face of the wheel. It will be of course understood that the numbers on each wheel must be multiples of the number represented by the button which operates the wheel. The number wheels are prevented from turning back by spring pawls 61 which are secured to an adjacent support and which engage the teeth of the number wheels. Each number wheel is preferably provided with ten numbers, although this number is not arbitrary, and on each number wheel is a laterally extending pin 62 which is adapted to engage one of the teeth 63 of a second number wheel 64 which is arranged behind and adjacent to the number wheel 58^a, there being as many number wheels 64 as there are number wheels 58^a, and as the number wheels 64 turn only one tooth at every revolution of the number wheels 58^a, it will be seen that the amounts exhibited by the wheels 64 will be ten times as large as those exhibited on the wheels 58^a, that is, if the wheels 58^a represent tens the wheels 64 will represent hundreds. The wheels 64 are journaled loosely on a shaft 65 which is held in hangers 66 on the drawer bottom, and the wheels are prevented from turning in the wrong direction by spring pawls 61^a. The numbers on the wheels 58^a and 64 may be read through sight slots 67 and 68 in the cover 67^a which is arranged above the number wheels, and these slots are exposed when the drawer is pulled out. When the wheels have registered up to their full capacity, it is necessary to turn them back to 0, and to this end each wheel 58^a and 64 has adjacent to it and keyed to the shaft 59^a or 65, as the case may be, a mutilated ratchet wheel 69 with a portion of its face plain, as shown at 70, and the ratchet wheel is engaged by a pawl 71 on the adjacent number wheel, which pawl is pressed into engagement with the ratchet wheel by a spring 72, also carried by the wheel. The

shafts 59^a and 65 are provided at one end with cranks 73, see Fig. 2, and when the number wheels are to be turned back to 0, the cranks are moved up and down, thus moving the cranks back and forth, that is, oscillating them, and the pawls engage the ratchet wheels and cause the number wheels to be moved back until the pawls come opposite the smooth portions of the ratchet wheels, when they will have no effect and this will indicate that the number wheels have been turned back to 0, as the number wheels and ratchet wheels are arranged so that the 0 marks of the number wheels will be uppermost when the pawls are at the first teeth of the ratchet wheels, that is, the teeth next the plain faces 70.

Behind the drawer is a gong 74 which is rung every time the drawer is opened and which thus serves as a safe-guard in the usual way, and above the gong is pivoted a hammer 75 having a head 76 to strike the gong, and its upper end is held against a pin 78 by a spring 77 which is secured to an arm on the upper end of the hammer and to the side of the case 10, and the top 79 of the hammer engages a spring catch 80 on the back of the drawer. Consequently when the drawer is pulled forward, the catch lifts the hammer upward and when the catch slides over the hammer the head 76 descends and strikes the gong. When the drawer is pushed in, the catch springs back to place over the top of the hammer.

The register may be locked by a cross bar 81 which is held in a recess 81^a in the front of the drawer and extends above the slide rods 33 just behind the shanks 32 of the buttons, this cross bar having upwardly extending guide arms 82 which move in slots or recesses 83 in the drawer front, and the cross bar has also a middle arm 84 likewise held to move vertically in a recess in the drawer front, and this arm at its upper end terminates in a hollow segmental cam 85 which moves in a recess 85^a in the drawer. In the hollow of the cam is a revoluble shaft 86 having a lug 87 thereon which is adapted to engage the upper and lower walls of the cam, so that by turning the shaft the arm 84 and cross bar 81 may be either raised or lowered. The shaft 86 comes opposite a key-hole 88 on the front of the drawer, see Fig. 1, and when the machine is to be locked a key 89 is inserted, the lug 87 turned down, and the cross bar 81 forced downward upon the slide rods and behind the shanks 32 of the buttons 31. It will be seen that when in this position, the cross bar will prevent the buttons from being pushed in and the machine cannot be worked. When the machine is in use, however, the cross bar is raised so as to permit the free movement of the buttons.

To operate the machine the hand hold 15 is grasped and with his thumb the operator presses the button 31 which represents the amount to be registered. When this is done the slide rod 33 moves inward, the lock bar

25 and bolt 28 are lifted by the arm 40, and the swinging lever 38, thus permitting the drawer to be withdrawn and the cash to be placed within it, and at the same time the upper end 41 of the lever 38 actuates the arm 42, pitman 44, bell crank 46, and arm 49 so as to throw up the shank 52 and display the sign 54 representing the amount of the purchase, and the pawl 55^a will, while this movement is going on, have turned the wheel 58^a so as to advance the wheel one tooth and number and thus register the amount of the purchase.

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

1. A cash register, comprising an inclosing case, a drawer held to slide therein, locking mechanism to hold the drawer closed, display signs held to move upward in the case and into view, the signs being appropriately marked as described, registering number wheels arranged within the drawer, a plurality of push buttons arranged on the drawer and numbered to correspond with the number wheels and display signs, and mechanism operated by the pushing of the buttons to unlock the drawer, raise the display signs and turn the number wheels, substantially as described.

2. A cash register, comprising an inclosing case, a slidable drawer held in the case, a gravity lock carried by and adapted to hold the drawer closed, a series of numbered push buttons arranged on the front of the drawer, registering number wheels for each push button, within the drawer an upwardly moving display sign for each number wheel and button, the sign being marked to correspond with the button, and mechanism operated by the pushing in of a button and adapted to unlock the drawer, turn a number wheel, and raise a display sign, substantially as described.

3. A cash register, comprising a case having an upwardly extending front portion with a transparent upper end, a drawer held to slide in the case, a lock to hold the drawer closed, a series of numbered push buttons arranged on the front of the drawer, a series of registering number wheels arranged within the drawer, a series of vertically movable display signs adapted to move up into the transparent upper portion of the case, the signs being numbered to correspond with the push buttons, and mechanism operated by the pressing of a button for releasing the lock, turning a number wheel, and raising a sign, substantially as described.

4. In a cash register, the combination with the case having a recess in its bottom, of the drawer held to slide in the case, and the registering mechanism carried by the drawer the swinging lock bar having a bolt thereon adapted to extend through the drawer bottom and into the recess in the case, a push button arranged in the front of the drawer, a slide rod connected with the push button, and with the registering mechanism and a swinging lever operated by the slide rod and having an

arm extending below the lock bar and in contact therewith, substantially as described.

5. In a cash register, the combination with the inclosing case the drawer held to slide therein, the registering mechanism carried by the drawer of a swinging lock bar adapted to lock the drawer to the case, a toothed registering wheel mounted on the drawer and having numbers thereon, the distances between the numbers corresponding to the distances between the teeth, a push button arranged in the front of the drawer, a slide rod operated by the push button, a swinging lever pivotally connected with the slide rod and having an arm to raise the lock bar, and a pawl also operated by the slide bar and held to engage the teeth of the number wheel, substantially as described.

6. In a cash register, the combination of the case having a recess in the bottom, the sliding drawer held to move in the case, the swinging lock bar held in the drawer, a bolt carried by the lock bar and extending downward through the drawer bottom and into the recess of the case, the push button held to slide in the front of the drawer, the slide rod operated by the push button, the swinging lever pivotally connected with the slide rod and having an arm extending beneath the lock bar, the revoluble toothed number wheel, and the spring pawl operated by the slide bar and adapted to engage the teeth of the number wheel, substantially as described.

7. The combination in a cash register, of the revoluble crank shaft, the number wheels loosely mounted thereon, mechanism for turning the number wheels, the mutilated ratchet wheels secured to the shaft adjacent to the number wheels, and pawls carried by the number wheels and adapted to engage the ratchet wheels, substantially as described.

8. The combination with a cash drawer and its lock, of a registering mechanism within the drawer, push rods extending through the drawer front and connected with the lock and the registering mechanism for simultaneously operating them, and a lock on the drawer front for locking the push rods, said lock being adapted to be operated from the exterior of the drawer, substantially as set forth.

9. The combination with a cash drawer and its lock, of a registering mechanism within the drawer, a push rod extending through the drawer front and connected with the lock and the registering mechanism for simultaneously operating them, substantially as set forth.

10. In a cash register, the combination, of the numbered push buttons, the vertically movable signs numbered to correspond with the push buttons, the slide rods movable by the push buttons, the oscillating levers actuated by the slide rods, the tilting arms held in the paths of the levers and actuated thereby, the swinging bell crank connected by pitmen with the tilting arms, upwardly swinging arms movable by the bell cranks, means for moving the signs by the movements of the upwardly swinging arms, and a fastening device to hold the signs in a raised position, substantially as described.

11. The combination with the sliding drawer and the registering mechanism contained in the drawer, of the push buttons arranged in the drawer front and adapted to operate the registering mechanism, and the guard plate secured to the drawer front and extending above the push buttons, substantially as described.

CHARLES J. PASSICK.

Witnesses:

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C. W. BARKLEY.