

E. VAN CAMP,
CASH REGISTER.
APPLICATION FILED JULY 26, 1909.

953,649.

Patented Mar. 29, 1910.

11 SHEETS—SHEET 1.

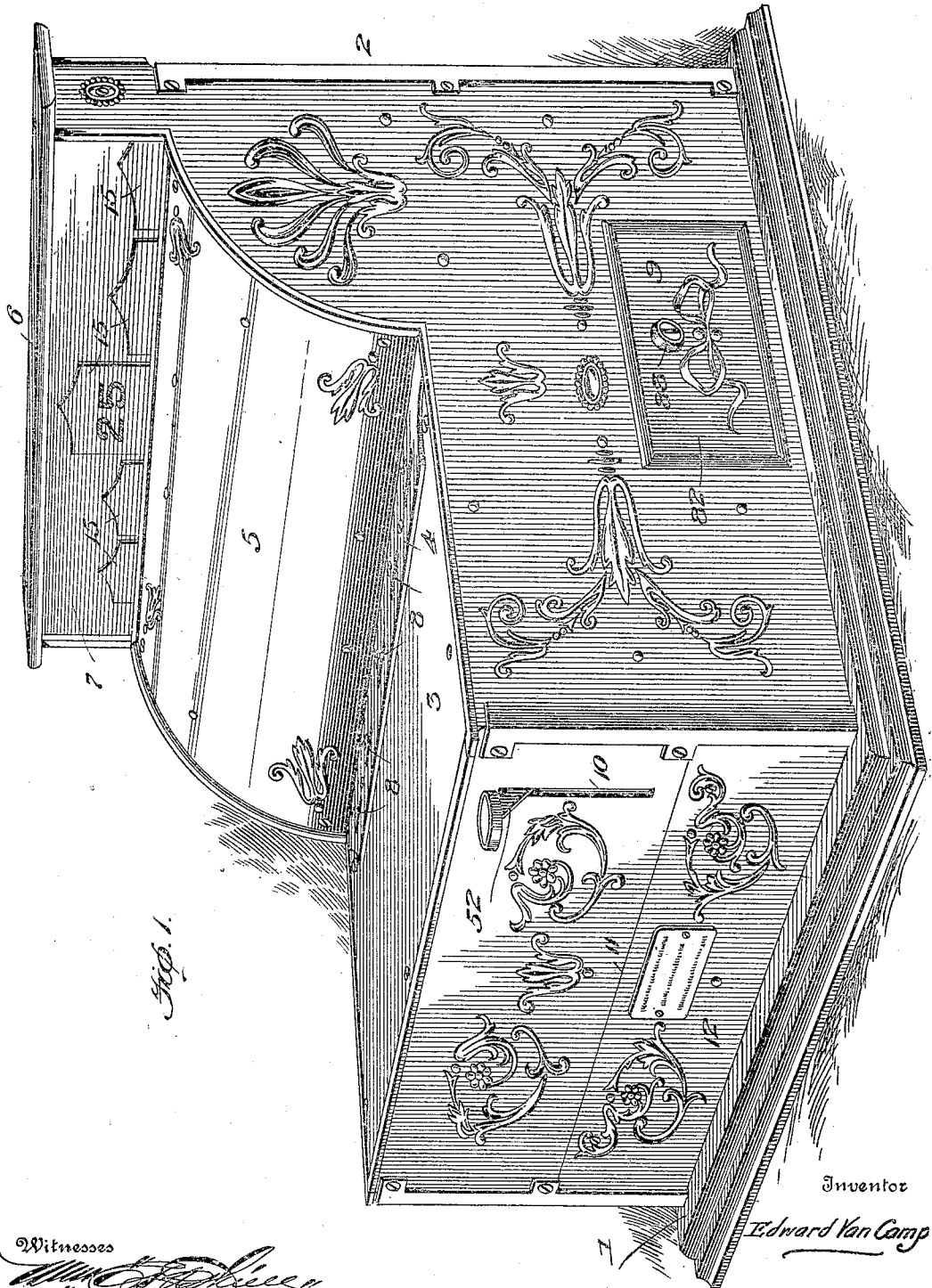


Fig. 1.

Witnesses

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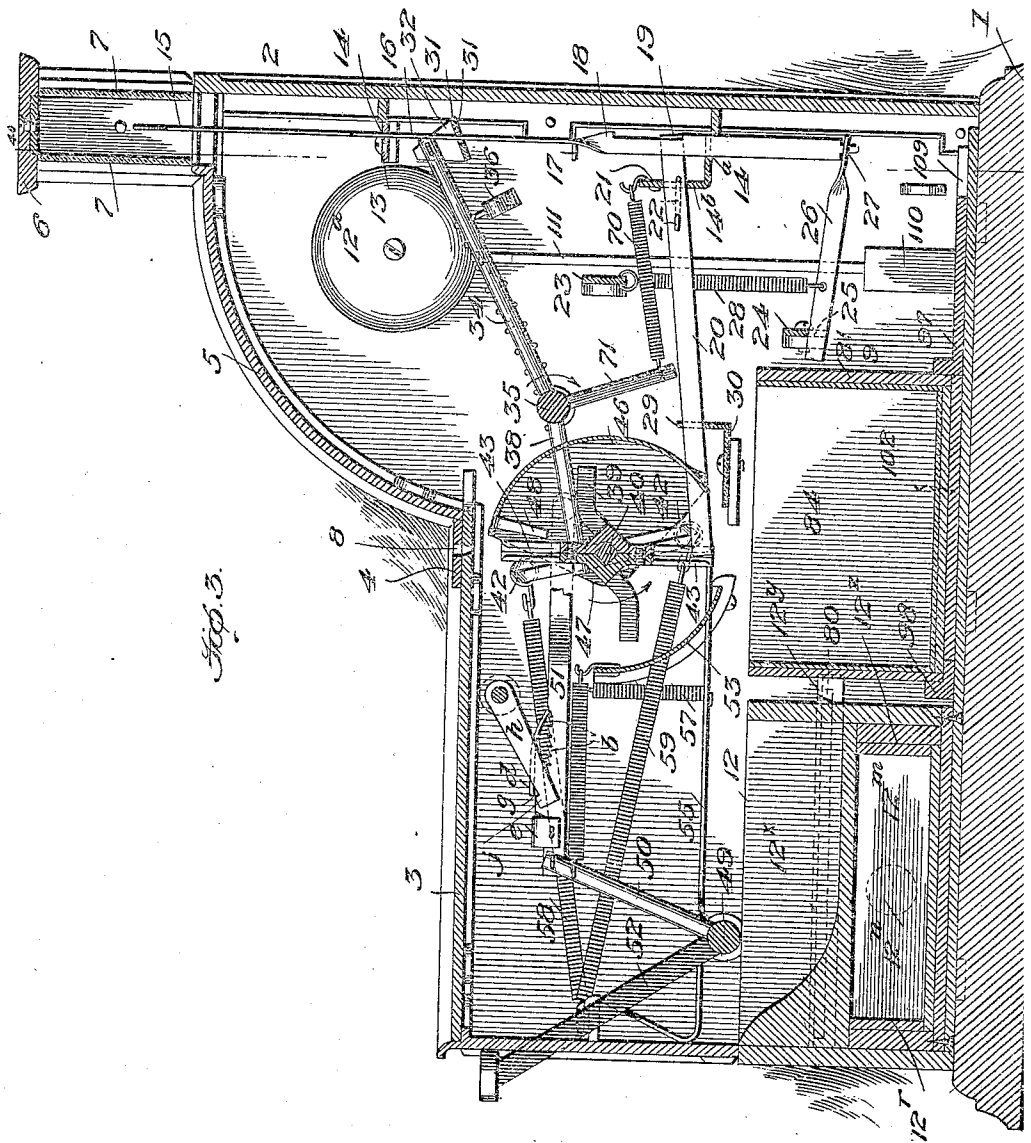
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11 SHEETS—SHEET 3



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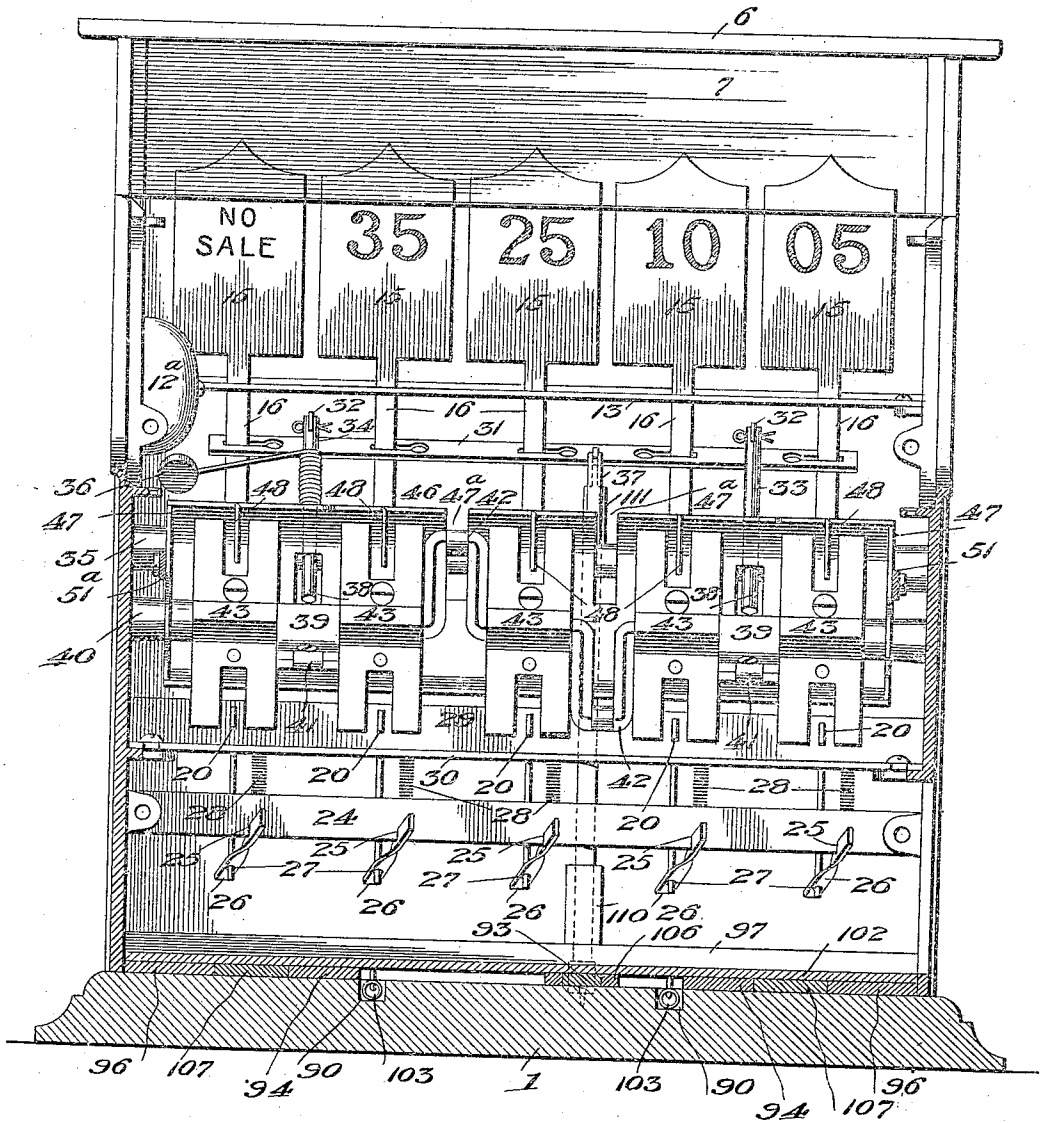
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11 SHEETS—SHEET 4.

Fig. 4.



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11 SHEETS—SHEET 5.

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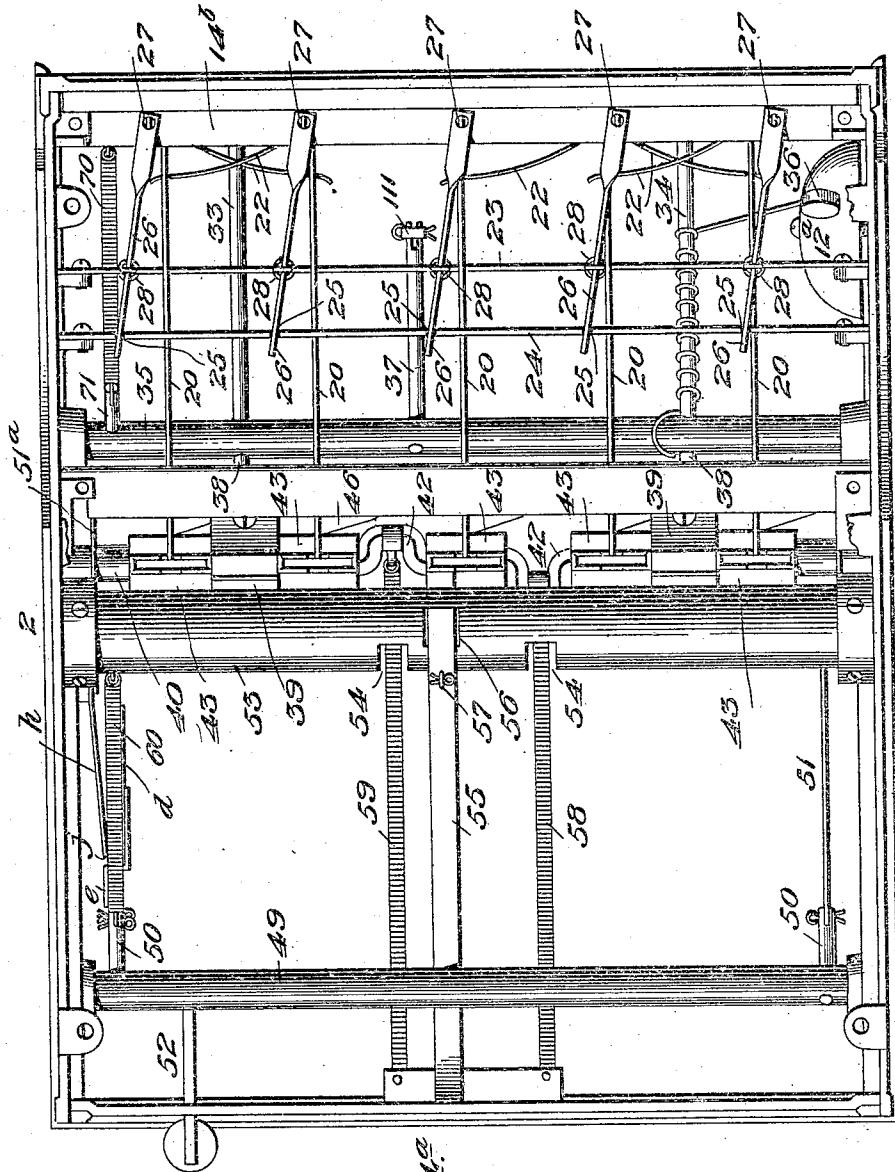


Fig. 4.

Witnesses
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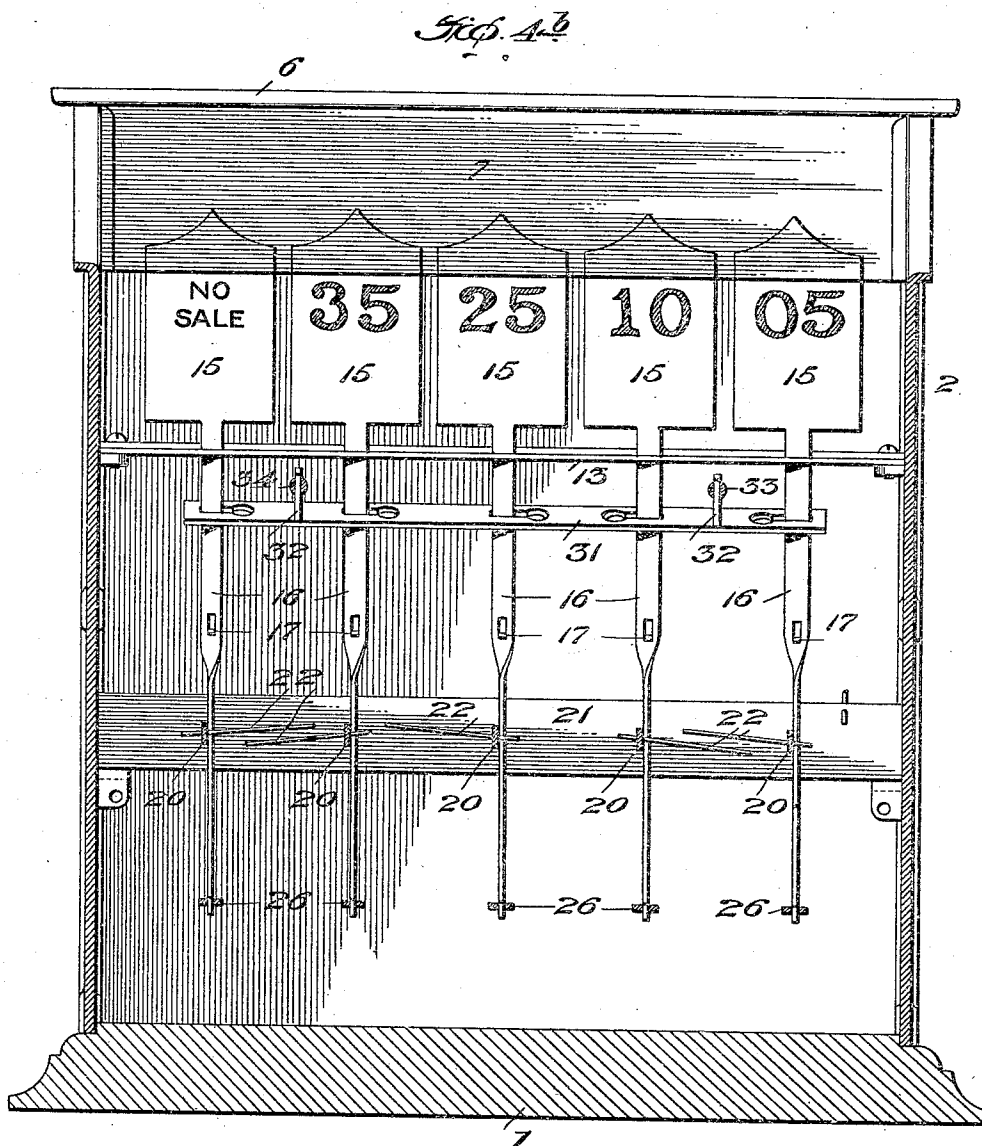
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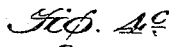
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11 SHEETS—SHEET 7



Witnesses

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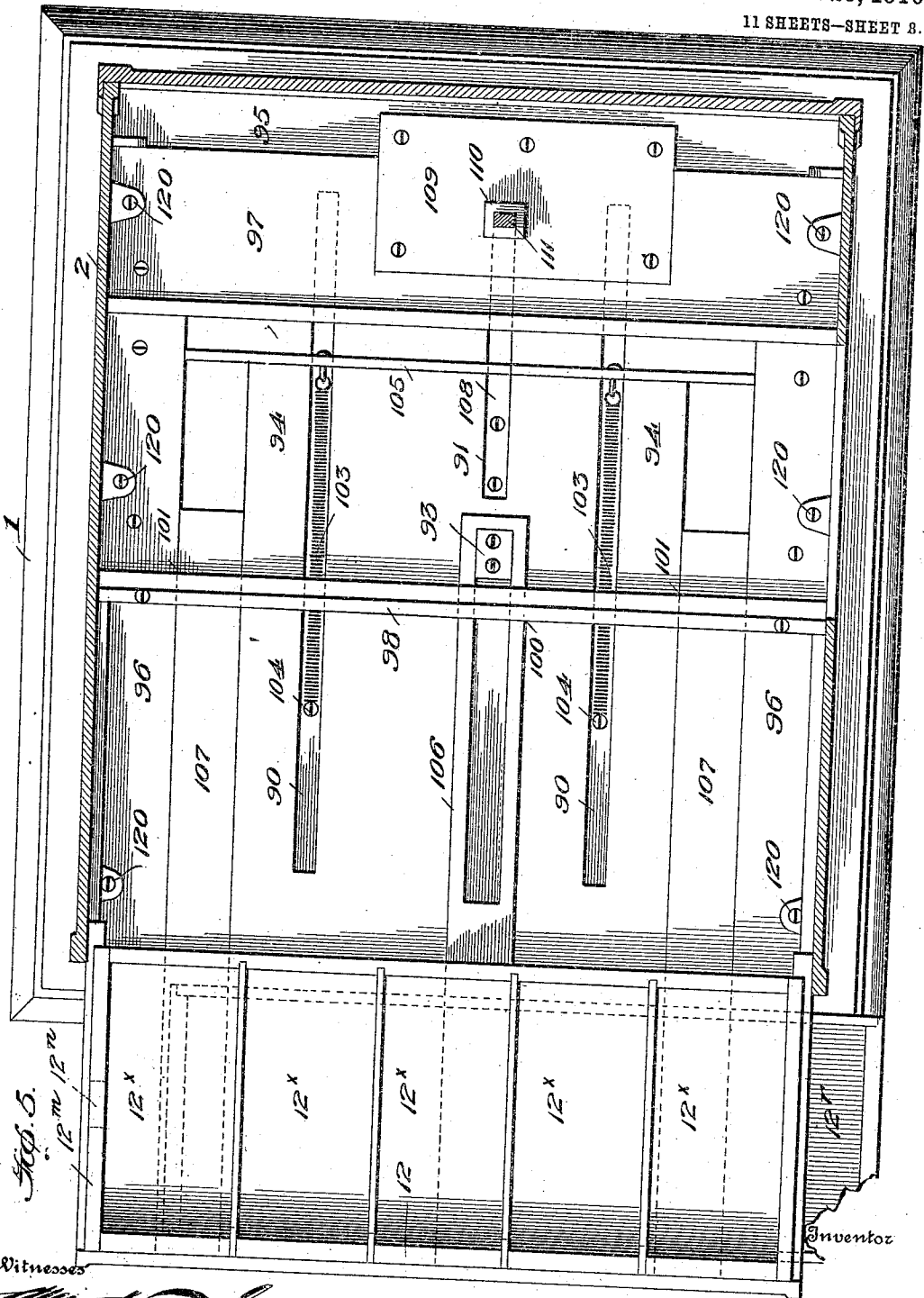
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11 SHEETS—SHEET 8.



Witnesses
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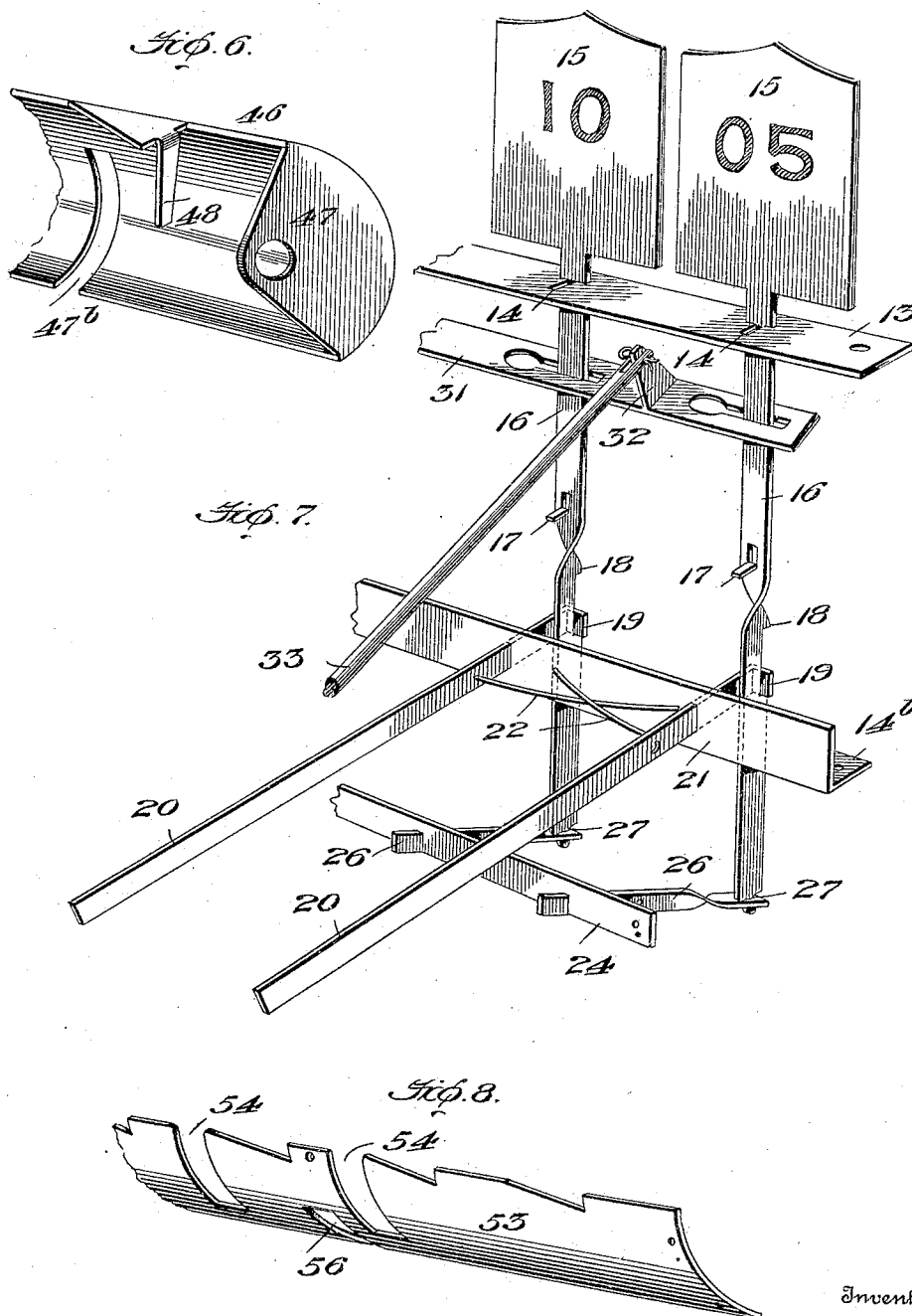
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11 SHEETS—SHEET 9.



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Fig. 9.

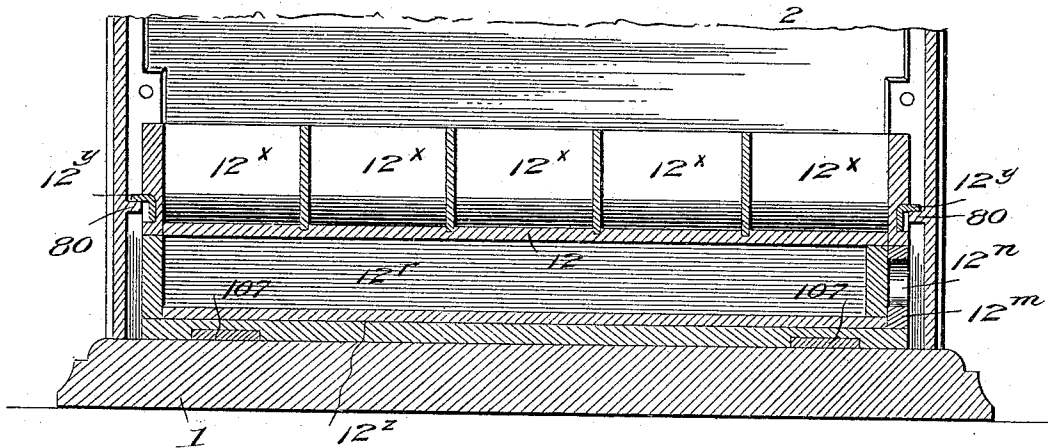


Fig. 10.

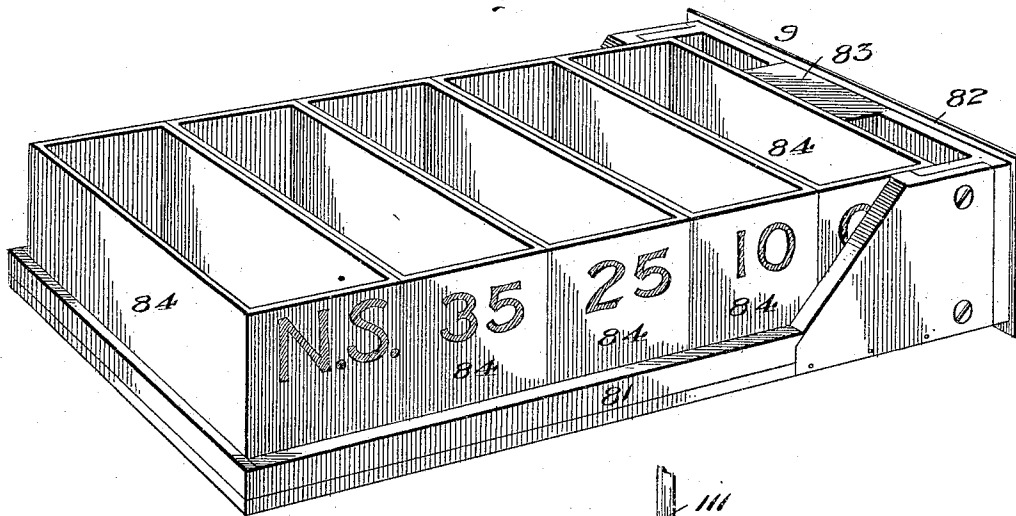
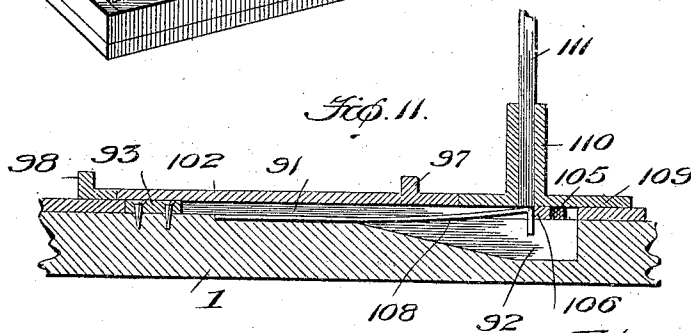


Fig. 11.



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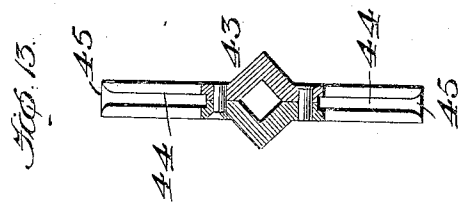
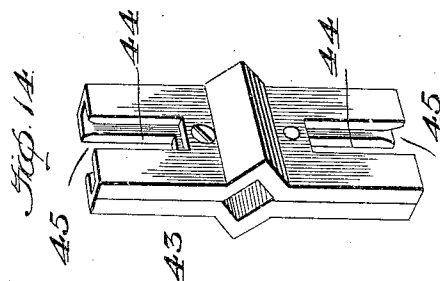
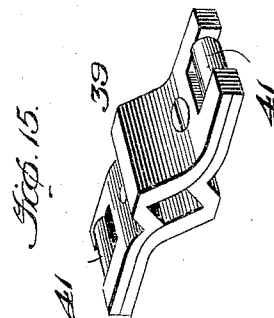
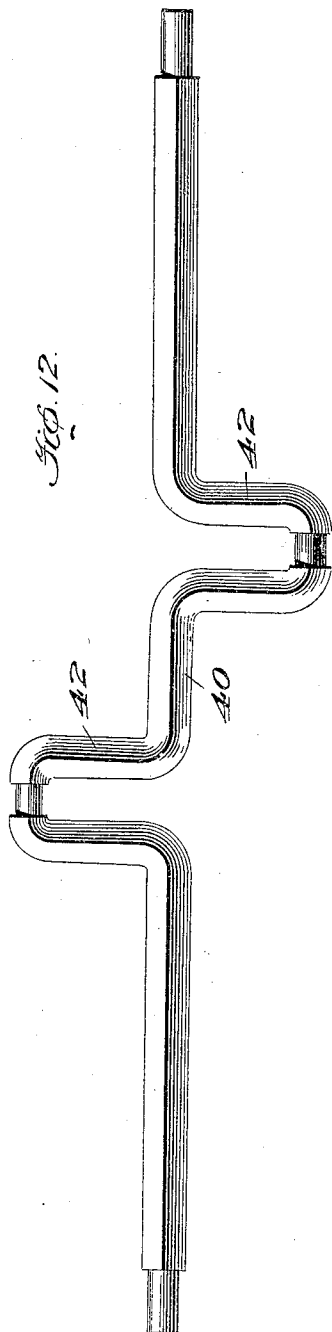
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UNITED STATES PATENT OFFICE.

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Specification of Letters Patent. Patented Mar. 29, 1910.

Application filed July 26, 1909. Serial No. 509,613.

To all whom it may concern:

Be it known that I, EDWARD VAN CAMP, citizen of the United States, residing at Brookston, in the county of White and State of Indiana, have invented certain new and useful Improvements in Cash-Registers, of which the following is a specification.

My present invention has relation to cash registers, and is designed more particularly as an improvement upon the cash register constituting the subject matter of my Letters Patent No. 849,869, bearing date of April 9, 1907.

In common with the machine disclosed in the Letters Patent referred to, the machine constructed in accordance with my present invention is especially designed for use in the transaction of business in barber shops—*i. e.*, is so constructed that its operation is controlled by checks of different denominations one of which a barber must deposit in the machine before he can operate the machine, to indicate the money value of the service rendered a customer, and gain access to the money drawer of the machine with a view of depositing the amount of money received in payment and giving the proper change when the latter is necessary. Also in common with the patented machine *supra*, the machine of the present invention provides for the automatic deposit of the checks in different compartments comprised in a locked drawer, and contemplates enabling the proprietor of the barber shop, by referring to the drawer at the end of a day or other business period and counting and noting its contents, to ascertain the amount of money received and the amount and character of work done by each of several journeymen during the said period.

One of the objects of the present invention is to provide improved means for raising each of a number of annunciators, for maintaining the raised annunciator in such position until immediately before another annunciator is raised,—for drawing down the first-named annunciator precedent to the raising of the second named, and for retaining the first named and other annunciators in the depressed and idle position while the second named annunciator is in its raised or display position.

Another object is the provision of improved means for sounding an alarm when

the machine is actuated to raise an annunciator and afford access to the money drawer.

Another object is the provision of improved means for ejecting the money drawer coincidentally with the operation of the annunciators and yieldingly maintaining the money drawer in its advanced position, and for latching the money drawer when the same is pushed back into the casing.

Another object is the provision of a check drawer comprising a carrier element and a plurality of receptacles separable from the carrier and from each other.

The best practical embodiment of the present invention that I have as yet devised will be fully understood from the following detailed description and claims when the same are considered conjunctively with the drawings accompanying and constituting part of this specification, in which:

Figure 1 is a perspective view of the improved cash register. Fig. 2 is a plan view of the register as it appears when the top plates of the casing are removed. Fig. 3 is a longitudinal vertical section of the complete register, taken in the plane indicated by the line 3—3 of Fig. 2, looking toward the left. Fig. 4 is a vertical transverse section of the register, taken in the plane of the line 4—4 of Fig. 2. Fig. 4^a is an inverted plan view showing the hollow casing body of the register and the parts therein. Fig. 4^b is a full transverse section, taken in the plane indicated by the line 4^b—4^b of Fig. 3—*i. e.*, immediately in front of the bar 31, looking toward the rear of the register. Fig. 4^c is a detail transverse section taken through the base and parts thereon in a plane immediately in front of the transverse bar 98. Fig. 4^d is a detail plan view showing the actuator 46 in its foremost position. Fig. 5 is a detail sectional view showing the register base in plan, and certain parts thereon. Figs. 6, 7 and 8 are fragmentary perspective views of parts herein-after specially referred to. Fig. 9 is a cross-section showing the arrangement of the money-drawer in the casing. Fig. 10 is a detail perspective view showing the check drawer in its entirety, as the same appears when removed from the casing. Fig. 11 is a detail section illustrative of the means for latching and the means for unlatching the money drawer. Fig. 12 is a detail elevation

of the revoluble shaft of the register. Fig. 13 is a vertical section of one of the check-receiving and carrying levers employed on said shaft. Fig. 14 is a perspective view of the same. Fig. 15 is a perspective view of one of the cam levers employed on said shaft.

Similar numerals and letters of reference designate corresponding parts in all of the views comprised in said drawings.

The casing of the register comprises a base 1, preferably of wood, a hollow body portion 2, preferably of metal, suitably fixed on the base, cap plates 3, 4, 5 and 6, also preferably of metal, suitably fixed on the hollow body portion, and glass panels 7 arranged in the body portion 2 and under the cap plate 6 and separated by an intervening space, Fig. 3. The cap plate or bar 4 is provided with a plurality of check-slots 8, registered with corresponding slots in the plate 3 below, and preferably bears the inscriptions illustrated in Fig. 1. It will also be noted that the casing body 2 is provided in one side wall with an opening for the passage of a transversely-slidable check-drawer 9, and is also provided in its front wall with a vertical slot 10 and an opening 11, the latter for the passage of a longitudinally-slidable money-drawer 12. At this point reference is invited particularly to Figs. 2, 3 and 4 wherein 12^a is a gong attached to one side wall of the casing portion 2; 13, a fixed horizontal cross-bar having a plurality of (preferably five) vertically disposed guide apertures 14; and 15, 15^a, a plurality of (preferably five) annunciators inscribed, by preference, "05", "10", "25", "35", and "No sale", respectively, and in the sequence illustrated, and having depending and twisted stems 16 guided in the apertures 14, as well as in the apertures 14^a of a lower fixed cross bar 14^b, and also having forwardly extending projections 17 and abutments 18 on said stems (see also Fig. 7). The said abutments 18 are for the engagement of angular terminals 19 at the rear ends of five longitudinally-movable bars 20 which are guided in an upstanding flange 21 on the cross-bar 14^b and are normally held in and returned to the position illustrated by curvilinear springs 22 connected to them and said flange 21. From this it follows that the office of the bars 20 is to hold the annunciators in their depressed, idle position and against upward movement; also, that when the bars 20 are moved rearwardly the abutments 18 of the annunciator stems 16 will be released from the terminals 19 of the bars, while, when a raised annunciator is depressed, the abutment 18 on the stem thereof will ride past and assume a position below the terminal 19 complementary to said stem.

In order to raise the annunciators when the stems 16 thereof are released by rearward movement of the bars 20 as described,

I provide the mechanism best shown in Figs. 3 and 4^a, which mechanism comprises a fixed cross-bar 23, a lower fixed cross-bar 24 having notches 25 in its lower edge, five vertically-swinging levers 26 fulcrumed in said notches 25 and having apertured rear ends 27 which receive the reduced lower ends of the stems, and tractile springs 28 interposed between and connected to the cross-bar 23 and the levers 26. When the annunciators 15 are depressed sufficiently to carry the abutments 18 on their stems 16 below the terminals 19 of the longitudinally-movable bars 20, the springs 28 will be put under tension, and consequently when any one of the bars 20 is moved rearwardly to release its respective annunciator, the spring 28 complementary to said annunciator will operate through its lever 26 to quickly raise the annunciator and yieldingly maintain the same in the display position between the glass panels 7. At this point attention is directed to the fact that the longitudinally-movable bars 20 are guided in apertures in the upstanding flange 29 of a fixed cross-bar 30 as well as in the upstanding flange 21 of the fixed cross-bar 14^b.

For the purpose of coöperating with the projections 17 on stem 16 to limit the upward movement of the annunciators and to move the raised annunciators downwardly, I provide the vertically-movable cross-bar 31 through apertures in which the stems of the annunciators loosely extend, as shown in Figs. 3, 4 and 7. The said bar 31 is provided with upwardly extending lugs 32, and to said lugs are pivoted arms 33 and 34 on a transverse rock-shaft 35. It will thus be observed that when the shaft 35 is turned in the direction indicated by arrow in Fig. 3, the bar 31 will coöperate with the projection 17 on the stem of any one of the annunciators 15 that may be raised and will move said annunciator downwardly until the abutment 18 of the stem passes and assumes a position below the terminal 19 on its respective bar 20. It will also be observed that on movement of the rock-shaft 35 in the direction opposite to that indicated by arrow, a hammer 36 on the arm 34 will strike the gong 12^a and sound an alarm. The said hammer 36 is preferably formed in part of a piece of wire that is coiled about the arm 34 and has its forward end secured to the rock-shaft 35, and hence it will be manifest that after striking the gong the head of the hammer will rebound to and remain in the position shown in Fig. 3 so as not to interfere with the vibration of the gong.

A third arm, which is numbered 37 extends rearwardly from the rock-shaft 35 for an important purpose hereinafter set forth; and the said rock-shaft is further equipped with two forwardly-extending arms 38. These latter rest on cam levers 39, fixed on

a transverse, revoluble shaft 40 and having anti-friction rollers 41 at their ends. The said shaft 40 is provided with oppositely disposed cranks 42, and on it are fixed five check-receiving and carrying levers 43 one of which is detailed in Figs. 13 and 14. The said levers 43 respectively comprise end check receptacles 44 and end bifurcations 45 which intersect the receptacles 44 and are each designed, when a check is in the adjacent receptacle, to enable the said check to strike and move rearwardly the bar 20 that is in its path. This being so, it follows that when there is no check in a receptacle 44 of a lever 43, the bifurcation 45 adjacent said receptacle 44 will enable the lever end to straddle and freely pass its respective bar 20 without moving or otherwise disturbing the latter.

46 is the swinging check-engager and register-actuator of my improvements. The said actuator is provided with end arms 47 loosely mounted on the end portions of the rock shaft 40, and is, therefore, capable of swinging independently of and about said shaft. It is also provided with two forward slots 47^a and two rear slots 47^b, Fig. 4^a and is equipped at intervals of its length with five fingers 48, one for each lever 43, with the bifurcations 45 of which it is longitudinally aligned.

49, Figs. 2 and 3, is a forward transverse rock-shaft having arms 50, connected through links 51 and 51^a with the end arms 47 of the actuator 46. 52 is a finger lever fixed to the rock shaft 49 and extending through and movable vertically in the casing slot 10. 53, Figs. 2, 3 and 8, is a fixed plate, of curvilinear form in cross-section, having two slots 54. 55 is a spring strip connected with the forward wall of the casing body 2 and extending through an aperture 56, Figs. 2 and 8, in the plate 53 and adapted to serve as a stop in limiting the rebounding movement of the central check receiving and carrying lever 43. 57 is a tractile spring connected to the strip 55 and the upper portion of the plate 53 and designed to raise the strip subsequently to depression and release thereof. 58 is a tractile spring connecting one of the cranks 42 of shaft 40 and the front wall of the casing portion 2. 59 is a similar spring connecting the other crank 42 of shaft 40 and said wall, and 60 is a tractile spring extending between and connected to the fixed plate 53 and the adjacent arm 50.

By reference to Figs. 1 to 4^a it will be understood that depression of the finger lever 52, when no check is deposited, will merely rock the actuator 46 forwardly, this because the actuator fingers 48 will pass forwardly and idly through the then uppermost bifurcations 45 of the levers 43; also, that when the finger lever 52 is relieved of pressure, the spring 60 will operate to return said

lever 52, the actuator 46, and their connections to their normal positions best shown in Fig. 3. When, however, a check is deposited in one of the slots 8 of the cap plate 4, it will drop through the registered slot in the cap plate 3 and into the uppermost check receptacle 44 of the lever 43 below. Then when the finger lever 52 is depressed and the actuator 46 is rocked forwardly, one of the fingers 48 of the latter will engage the check, and, through the medium of the check, will rotate the lever 43 containing the check, together with the shaft 40 and the four other levers 43 in the direction indicated by arrow in Fig. 3 until the crank 42 that was lowermost passes the center, whereupon the spring 58, complementary to said crank and which is stretched and put under tension by the described rotation of the shaft 40, contracts or tends to resume its normal state and by so doing forcibly pulls its crank upwardly and forwardly until the said crank extends upwardly from shaft 40 and the other crank extends downwardly from the shaft. Incidental to the said rotation of the shaft 40 and the elements fixed thereto through a part of a revolution, the central lever 43 depresses and passes in a rearward direction of the rear end of the spring strip 55, and the strip is then pulled upwardly by the spring 57 so as to serve as an efficient stop for the lower arm of the central lever 43 when said arm tends to rebound or swing forwardly because of the spring 59 being then under tension and tending to pull said arm forwardly. This will be appreciated as an important advantage when it is noted that it serves to correctly register the check-receptacles in the lever arms that are then uppermost with the slots in the cap plate 3. It will also be noted that following the described rotation of the shaft 40 and the parts fixed thereto, the spring 58 or 59 that is uppermost and relaxed while the other spring 58 or 59, as the case may be, is under tension and therefore serves as stated to hold the lower arm of the central lever 43 against the strip or latch 55.

After the actuator 46 is rocked forwardly and one of its fingers 48 coöperates with a check in one of the levers 43 to rotate the shaft 40, the spring 60 serves to return the actuator and the parts connected therewith to the normal positions as soon as the finger lever 52 is relieved of pressure, in the same manner as before described.

During the described rotation of the shaft 40 and the levers 43 and 39 fixed thereto, the following operations take place:

First.—The shaft 35 is turned in the direction of the arrow adjacent thereto, Fig. 3, by the cam levers 39 coöperating with the shaft arms 38, Figs. 3 and 4, and in consequence the arms 33, 34 and 37 are swung downwardly, and the bar 31 on the arms 33

and 34 is enabled in the manner before described to lower any one of the annunciators 15 that may be elevated, whereupon the said annunciator will be secured in its depressed position by the means also before described. It should further be noted here that immediately following the said downward movement of the bar 31, the shaft 35, the several arms fixed thereto, and the bar 31 will be returned to their normal positions by the contraction of a tractile spring 70, interposed between a depending arm 71 of rock-shaft 35 and the upstanding flange 21 of the fixed cross-bar 14^b, Figs. 2, 3 and 4^a, and that on the upward movement of the arm 34 the hammer 36 will strike the gong 12^a as before described.

Second.—All of the levers 43 except the one carrying the mentioned check, clear their respective bars 20 (see Fig. 7) and leave said bars at rest. The check, however, strikes and moves rearwardly the bar 20 opposed to it, and in consequence the annunciator 15 complementary to the lever 43 carrying the check is released and raised in the manner before described, thereby indicating the money value of the service rendered and represented by the deposit of the check.

Third.—Upon the before mentioned rebound of the lower arms of the levers 43, the check is carried forwardly clear of the forward end of the bar 20 that it actuated, and drops from the lower receptacle of the lever 43 by which it is moved against said bar 20.

Obviously if a plurality of checks is deposited in a plurality of the levers 43 precedent to depression of the finger lever 52, a corresponding plurality of annunciators 15 will, upon said depression, be synchronously raised; also, in the event of a number of the annunciators 15 being raised at one time, the bar 31 is adapted, upon depression thereof, to lower the said annunciators synchronously with the same facility that it lowers a single annunciator.

Incidental to the described swinging or rocking movements of the actuator 46, one of the forward slots 47^a thereof freely receives the spring 58 or 59 that happens to be uppermost, while the rear slots 47^b of the actuator freely receive the forwardly extending arms 38 of the rock shaft 35.

In order to prevent retrograde movement of the finger lever 52 and the actuator 46 after the downward movement of the former is started and before the movement of the said elements in the initial direction is completed, I prefer to employ the mechanism best illustrated in Fig. 3; the said mechanism comprising beveled teeth *b* on the bar 51, a vertically-swinging arm *d* having an inverted U-shaped portion *e* at its forward end straddling and pivotally connected to

the bar 51 and having a notch *g* in its outer edge adjacent its center movement, and a gravitating pawl *h* pivoted to the adjacent side wall of the casing portion 2 and having an angular toe *j* at its free end. Obviously when the bar 51 is drawn forwardly, the toe *j* on pawl *h* will permit the teeth *b* on said bar to freely pass it, but will effectually prevent movement of the bar 51 in the opposite direction, for the purpose stated. When, however, the bar 51 reaches the end of its forward traverse, the toe *j* of the pawl *h* will rest on the bar 51 and in rear and clear of the arm *d*, and then on the rearward movement of the bar 51, the said arm *d* will move under the toe *j* until the notch *g* in the arm is below the toe *j*, when the said toe will drop through the notch *g* and into the position shown in Fig. 3, ready to repeat the operation described.

As best shown in Figs. 2, 3 and 4^a, the side walls of the body portion 2 of the casing are provided upon the inner sides of their forward portions, at an intermediate point of their height, with fixed, horizontal ledges 80 for a purpose hereinafter set forth.

The check drawer 9, heretofore referred to as extending through an opening in the right-hand side wall of the casing body 2, is, as best shown in Figs. 3 and 10, made up of a rectangular, slidable, carrier or frame 81, preferably of wood, fixed to the face-plate 82 which is adapted to bring up against the outer side of the casing body 2 and is equipped with an appropriate lock 83, and a plurality of receptacles 84, preferably of sheet-metal, arranged side by side in the frame 81, on the bottom and between the side walls thereof, and adapted to be removed individually from the said frame and similarly replaced therein. The said receptacles 84 correspond in number to the annunciators 15 and are similarly inscribed, and each receptacle 84 is disposed below the particular lever 43 that has to do with the check-controlled release of the annunciator 15 corresponding to said receptacle, this in order to assure the deposit of the check in said receptacle subsequent to the release of the said annunciator in the manner before described.

The provision of the plurality of receptacles 84 individually separable from the carrier or frame 81 is materially advantageous for the reason that after a day or other predetermined business period, the proprietor, who alone is supposed to have access to the check-drawer 9, can separately remove each receptacle 84 to facilitate dumping and counting of its contents and prevent such contents from becoming mixed with the contents of other of the receptacles 84, and he can also, when deemed expedient, remove all of the receptacles 84 and their contents, and replace said receptacles with other recep-

tacles, the group of receptacles used for each day's business, being suitably identified and stored away so that at the end of a week or other desired period comparison may be made of the business done on the different days. It will also be noted that at the end of a business day the proprietor can remove the filled receptacles 84 and replace the same with empty receptacles; the filled receptacles being placed in the proprietor's safe for counting on the next day, and the register being adapted, by reason of its being supplied with empty receptacles 84 as described, to be used the next morning before the proprietor appears on the scene.

Particular reference is now invited to Figs. 3, 4, 4^c, 5, 9 and 11, wherein is best shown the base 1, which is preferably of wood, and the parts on the said base. It will be noted that the base 1 is provided in its upper side with two longitudinal grooves 90, a short longitudinal groove 91, arranged between the grooves 90, and a pocket 92, of increased depth and best shown in Fig. 11, at the rear end of the groove 91. It will also be observed that a stop block 93 is fixed on the base 1, slightly in advance of the groove 91; that stop bars 94 are fixed on said base, at opposite sides of and in rear of the block 93; that fixed to the upper side of the base 1 is a raised portion comprising a rear transverse bar 95 and side bars 96; that fixed on said bars 95 and 96 is a recessed strip 97, preferably of wood, the forward upstanding edge of which is designed to serve as the rear guide of the check-drawer 9, Fig. 3; that fixed on the forward portions of the side bars 96 is a transverse bar 98, Fig. 4^c, of right-angle form in cross-section, designed to serve as the forward guide of the check-drawer 9, and having a longitudinal-central guide-way 100 and other longitudinal guide-ways 101, disposed at opposite sides of the guide-way 100; and that a strip 102, preferably of wood, is fixed on the side bars 96 and between the strip 97 and the bar 98 so as to serve as a rest for the check-drawer 9. The said strip 102 is clearly shown in Figs. 3 and 11, but, for the sake of better disclosure of other parts, is omitted from Fig. 5. It will further be observed by particular reference to Fig. 5 that tractile springs 103 are arranged in the longitudinal grooves 90 and are connected at their forward ends 104 to the base 1; that a transverse, fore and aft movable bar 105, preferably of metal, is connected and movable with the forward ends of said springs 103, and is adapted to bring up against the rear ends of the stop bars 94; that fixed to and extending rearwardly from the money drawer 12 is a longitudinal-central bar 106 that extends through the central guide-way in the bar 98 and is slotted to receive the stop block 93 against which its rear end is adapted to bring up when the money-

drawer 12 reaches the extremity of its forward movement; that longitudinal bars 107 are fixed to and extend rearwardly from the money-drawer 12 and through the other guide-ways of the transverse bar 98 and abut at their rear ends against the fore and aft movable bar 105; that a longitudinal spring-strip or latch 108 is secured in the groove 91 of the base 1 and has its rear and vertically movable end shaped to engage the forward side of the rear end wall of the slot in bar 106, as shown in Fig. 11; that a casting 109 is fixed in the before mentioned recess of the strip 97 and is provided with an upstanding sleeve 110 positioned in vertical alinement with and above the rear portion of the spring latch 108; and that a vertically movable plunger 111 is guided through said sleeve, said plunger being connected at its upper end to the arm 37 on the rock-shaft 35. From this it follows that when the shaft 35 is turned in the direction indicated by the adjacent arrow in Fig. 3, the plunger 111 will press the spring latch 108 down to a point below the slotted bar 106, and that immediately following the retraction or upward movement of the plunger 111 to its normal position, the springs 103 will draw the bar 105 forwardly, and said bar 105 will move before it the bars 106 and 107, with the result that the money-drawer 12, fixed to said bars 106 and 107, will be suddenly opened or extended forwardly of the casing body 2. It also follows that when the money-drawer 12 is pressed back into the casing body 2, the slotted bar 106 will be moved rearwardly until its rear end is engaged by the latch 108 in the manner shown in Fig. 11, and at the same time the transverse bar 105 will be moved rearwardly by the bars 107, and in that way the springs 103 will be put under tension, ready to move the drawer 12 to its open position when the slotted bar 106 is again released.

It will be gathered from the foregoing that the bar 105 bearing against and movable with the three bars 106 and 107, precludes binding of the drawer 12 during outward movement of the latter, and that the described manner of guiding the bars 106 and 107 lessens the liability of the drawer 12 binding on both the outward and the inward movements of the latter.

As best shown in Fig. 9 of the drawings, the money-drawer 12 comprises a body portion having compartments 12^x for coins of different denominations and also having side flanges 12^y arranged and movable on the before mentioned ledges 80 of the casing body 2, a drawer-way 12^z formed in the body portion, below the compartments 12^x, and extending in the direction of the width of the drawer and having one of its ends closed by a fixed wall 12^m in which is a transverse finger opening 12ⁿ, and a sub-drawer 12^r ar-

ranged and movable in the way 12^a and adapted to receive dollar and other bills. By virtue of the drawer 12 being constructed as shown, it will be manifest that the sub-drawer 12^r for bills can be opened from the body portion only when the latter is extended forwardly from the register casing; and also, that it is necessary to introduce a finger through the opening 12ⁿ and push against one end of the sub-drawer 12^r before the opposite end can be grasped for the withdrawal of the drawer from the body portion. This will be appreciated as an important advantage when it is stated that it tends to prevent an unauthorized person, unfamiliar with the opening of the sub-drawer 12^r, from gaining access to the bills contained in said drawer.

Obviously the casing body 2 may be fixedly connected to the base 1 by interior screws 120, Fig. 5, or any other means consonant with the purpose of the invention.

The general scheme and operation of the invention will be fully understood from the following: The barbers in a shop in which the register is installed are provided with sets of disk-like checks of different denominations, the set of checks for each barber each bearing an individual number by which the said barber is differentiated from the others. Thus the checks for barber No. 1 are all numbered "1," and those for barber No. 2 are all numbered "2," and so on. Then when a customer makes payment for service rendered, the barber selects a check from his respective set corresponding in denomination to the amount charged for the service, and drops such check through the slot 8. For instance, if the charge for the service rendered is twenty-five cents, the barber drops a twenty-five cent check from his set through the middle slot 8 of the number in the plate 4, and then depresses the finger lever 52, whereupon the "25" annunciator will be raised and displayed as shown in Fig. 1, the gong 12^a sounded, the money-drawer 12 will be projected from the casing body 2, and the check will be deposited in the "25" receptacle 84 of the check drawer 81. The money drawer 12 being opened as stated, the barber is free to place money in and remove change from said drawer, and it is then his duty to shove said money drawer into a closed position, when it will be automatically latched and secured in the casing. When the register is again operated by a twenty-five cent or other check, the annunciator that is up in the display position will be lowered, and the operation described will be repeated. At the end of any predetermined business period, the proprietor of the shop is enabled by referring to the checks deposited in the check drawer 81 to determine the character and the money-value of the services rendered by each of

the several barbers, and the amount of money received during said period.

As hereinbefore stated my novel register is designed more particularly for use in a barber shop, but obviously the register as a whole and the combinations embraced therein may be put to any uses to which they are applicable; also, such changes in the form, construction and relative arrangement of parts may, in the future practice of the invention, be made without involving departure from the scope of my invention as defined in the claims appended.

The term "check" as herein employed is intended to comprehend coins and other disks of metal and other materials.

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

1. In a cash register, the combination of a casing, vertically-movable annunciators having stems on which are projections and abutments, spring-actuated levers engaging said stems and adapted to raise the annunciators, a vertically-movable bar for engaging the projections of the stems and lowering the annunciators, movable bars for engaging the abutments and holding the annunciators against upward movement, springs for moving said bars in one direction, a rock-shaft having arms connected with the vertically-movable bar and also having other arms, a revoluble shaft having oppositely disposed cranks, cam levers fixed on said shaft and adapted to cooperate with the last-named arms of the rock-shaft, levers fixed on the revoluble shaft and having check receptacles and also having bifurcations intersecting said receptacles and alined with the said movable bars, tractile springs connecting the casing and said cranks, a fixed plate disposed in front of the revoluble shaft, a spring strip attached to the casing and adapted to engage one lever and thereby prevent rebound of the revoluble shaft and its appurtenances, a tractile spring connecting said strip and the fixed support, a swinging actuator loosely mounted on the revoluble shaft and having fingers alined with the bifurcations in the levers, and means for operating said actuator.

2. In a cash register, the combination of a casing, movable annunciators, means for moving the annunciators in one direction, means for moving the annunciators in the opposite direction, movable bars adapted in one position to hold the annunciators against movement in the first-named direction, means for yieldingly holding said bars in one position, a revoluble shaft having oppositely disposed cranks, cam levers fixed on said shaft for cooperating with the second-named annunciator means, levers fixed on the shaft and having check-receptacles and bifurcations intersecting the same and

alined with the movable bars, springs connecting the cranks and the casing, a spring strip connected with the casing and adapted to limit rebound of the shaft and its appurtenances, a swinging actuator loosely mounted on the shaft and having fingers alined with the bifurcations in the levers, and means for operating said actuator.

3. In a cash register, the combination of a casing, movable annunciators, means for moving the annunciators in one direction, movable devices adapted in one position to hold the annunciators against movement, means for moving the said movable devices in one direction and yieldingly holding the same in engagement with the annunciators, means for moving the annunciators in the direction opposite to that stated, a revoluble shaft having oppositely disposed cranks, means on the shaft for coöperating with the last-named means for moving the annunciators, levers on the shaft having check receptacles and also having openings intersecting said receptacles and alined with the said movable devices, tractile springs connecting the casing and cranks, means for limiting the rebound of the shaft and its appurtenances, a swinging actuator having fingers alined with the bifurcations in the levers, and means for operating said actuator.

4. In a cash register, the combination of a casing, movable annunciators, means for moving the annunciators in one direction, movable devices adapted in one position to hold the annunciators against movement, means for moving the said movable devices in one direction and yieldingly holding the same in engagement with the annunciators, means for moving the annunciators in the direction opposite to that stated, a revoluble shaft having oppositely disposed cranks, means on the shaft for coöperating with the last-named means for moving the annunciators, levers on the shaft having check receptacles and also having openings intersecting said receptacles and alined with the said movable devices, tractile springs connecting the casing and cranks, a swinging actuator having fingers alined with the bifurcations in the levers, and means for operating said actuator.

5. In a cash register, the combination of vertically-movable annunciators having depending stems terminating in reduced portions, movable devices normally holding said stems against upward movement, means for moving said devices, vertically-swinging levers having apertures receiving the reduced terminals of the stems, and springs normally under tension for raising the levers and stems when the latter are released.

6. In a cash register, the combination of movable annunciators having stems, movable devices normally holding said stems against movement in one direction, means

for moving said movable devices, levers engaging the stems and adapted to move the annunciators in said direction, and springs connected with and adapted to swing said levers.

7. In a cash register, the combination of a casing, movable annunciators, means for moving the annunciators in one direction, means for moving the annunciators in the opposite direction, movable bars controlling the annunciators, a fixed support, a revoluble shaft having oppositely-disposed cranks, tractile springs connecting said cranks and the casing, means on the shaft for coöperating with said means for moving the annunciators in one direction, levers fixed on the shaft and having check-receptacles and bifurcations intersecting said receptacles and alined with the movable bars, a spring strip for limiting rebound of the shaft and its appurtenances, a tractile spring connecting said strip and the fixed support, a swinging actuator loosely mounted on said shaft and having fingers alined with the bifurcations in the levers, and means for operating said actuator.

8. In a cash register, the combination of a casing, movable annunciators, movable bars controlling movement of the annunciators, a fixed support, a revoluble shaft having oppositely-disposed cranks, tractile springs connecting said cranks and the casing, levers fixed on the shaft and having check-receptacles and bifurcations intersecting said receptacles and alined with the movable bars, a spring strip for limiting rebound of the shaft and its appurtenances, a tractile spring connecting said strip and the fixed support, a swinging actuator loosely mounted on the shaft and having fingers alined with the bifurcations in the levers, and means for operating said actuator.

9. In a cash register, the combination of a casing, a rock-shaft having arms, movable bars, a revoluble shaft having oppositely disposed cranks, tractile springs interposed between said cranks and the casing, cam levers fixed on said shaft and engaging said arms, other levers fixed on said shaft and having check receptacles and bifurcations intersecting said receptacles and alined with said bars, means for preventing rebound of the revoluble shaft and its appurtenances, a swinging actuator loosely mounted on said shaft and having fingers alined with the bifurcations, and means for operating said actuator.

10. In a cash register, the combination of a casing, movable bars, a revoluble shaft having oppositely-disposed cranks, tractile springs interposed between said cranks and the casing, levers fixed on said shaft and having check receptacles and bifurcations intersecting said receptacles and alined with said bars, means for preventing rebound of the revoluble shaft and its appurtenances, a

swinging actuator having fingers alined with the bifurcations, and means for operating said actuator.

11. In a cash register, the combination of
5 a casing, movable annunciators, a revoluble shaft having oppositely-disposed cranks, tractile springs interposed between said cranks and the casing, levers fixed on said shaft and having check receptacles and bifurcations intersecting said receptacles,
10 means for preventing rebound of the revoluble shaft and its appurtenances, a swinging actuator having fingers alined with the bifurcations, means for operating the ac-
15 tuator, and means adapted when a check is deposited in one receptacle to display the annunciator complementary to the lever that carries said receptacle.

12. The combination in a cash register, of
20 a casing, a rock shaft having arms, endwise movable bars, a revoluble shaft having oppositely disposed cranks, tractile springs connecting said cranks and the casing, cam levers fixed on said shaft and engaging the arms of the rock shaft, other levers fixed
25 on the revoluble shaft and having check-receptacles and bifurcations intersecting said receptacles and alined with said bars, a swinging actuator having fingers alined
30 with said bifurcations, and means for operating said actuator.

13. The combination in a cash register, of
a casing, endwise movable bars, a revoluble shaft having oppositely disposed cranks,
35 tractile springs connecting said cranks and the casing, levers fixed on the revoluble shaft and having check-receptacles and bifurcations intersecting said receptacles and alined with said bars, a swinging actuator having
40 fingers alined with said bifurcations, and means for operating said actuator.

14. The combination in a cash register, of
a casing, a rock shaft having arms, a revoluble shaft having oppositely-disposed
45 cranks, tractile springs connecting said cranks and the casing, levers fixed on the revoluble shaft and having check-receptacles and bifurcations intersecting said receptacles, a swinging actuator having fingers
50 alined with said bifurcations, and means for operating said actuator.

15. In a cash register, the combination of
a rock-shaft having arms, endwise movable bars, a revoluble shaft, means for assisting
55 in the revolution of said shaft, cam levers fixed on the revoluble shaft and engaging the arms of the rock shaft, other levers fixed on the revoluble shaft and having check receptacles and bifurcations intersecting said receptacles and alined with said
60 bars, a swinging actuator having fingers alined with said bifurcations, and means for operating said actuator.

16. In a cash register, the combination of
65 a rock shaft having an arm, a revoluble

shaft, means for assisting in the revolution of said shaft, a cam lever fixed on said shaft and engaging said arm, another lever fixed on said shaft and having a check-receptacle and a bifurcation intersecting said recep-
70 tacle, a swinging actuator having a finger alined with said bifurcation, and means for operating said actuator.

17. In a cash register, the combination of
movable bars, a revoluble shaft, means for
75 assisting in the revolution of said shaft, levers fixed on said shaft and having check-receptacles and bifurcations intersecting said receptacles and alined with said bars, a swinging actuator having fingers alined
80 with said bifurcations, and means for operating said actuator.

18. The combination in a cash register, of
a revoluble shaft, tension means for assist-
85 ing in the revolution of said shaft, means for preventing rebound of the shaft, levers fixed on the shaft and having check-receptacles and openings intersecting the same, means for acting against a check in one receptacle to turn the shaft, and means adapted to be
90 actuated by said check.

19. In a cash register, the combination of
a revoluble shaft, levers fixed on the shaft and having check receptacles and openings intersecting the same, means for acting
95 against a check in one receptacle to turn the shaft, and means adapted to be actuated by said check.

20. In a cash register, the combination of
a revoluble shaft, levers fixed on the shaft
100 and having check-receptacles, means for acting against a check in one receptacle to turn the shaft, and means adapted to be actuated by said check incidental to turning of the shaft.

21. In a cash register, the combination of
a revoluble shaft, levers fixed on the shaft and having check-receptacles, means for act-
105 ing against a check in one receptacle to turn the shaft, tension means for assisting in the turning of the shaft, and means adapted to be actuated by said check incidental to turning of the shaft.

22. In a cash register, the combination of
a revoluble shaft, levers fixed on the shaft and having check-receptacles, means for act-
115 ing against a check in one receptacle to turn the shaft, tension means for assisting in the turning of the shaft, means adapted to be actuated by said check incidental to turning of the shaft, and means for limiting the re-
120 bound of the shaft.

23. In a cash register, the combination of
a revoluble shaft, levers fixed thereon and having check receptacles and openings inter-
125 secting the same, and a movable actuator having fingers one of which is adapted to operate through one of said openings against a check in one receptacle to turn the shaft.

24. In a cash register, the combination of 130

a revoluble shaft, levers fixed thereon and having check receptacles and openings intersecting the same, a movable actuator having fingers adapted to operate through said openings against checks, tension means for assisting in the revolution of the shaft, and means for limiting the rebound of the shaft.

25. In a cash register, the combination of a revoluble shaft, levers fixed thereon and having check-receptacles and bifurcations intersecting said receptacles, and a swinging actuator loosely mounted on the shaft and having fingers movable in alinement with said bifurcations.

26. In a cash register, the combination of a revoluble shaft, levers fixed thereon and having check-receptacles and bifurcations intersecting said receptacles, tension means for assisting revolution of the shaft, means for limiting rebound of the shaft, and a swinging actuator loosely mounted on the shaft and having fingers movable in alinement with said bifurcations.

27. In a cash register, the combination of a revoluble shaft having oppositely-disposed cranks, tractile springs connected to said cranks, levers fixed on the shaft and having receptacles and bifurcations intersecting the same, a swinging actuator loosely mounted on the shaft and having fingers, means for operating said actuator, and means for limiting rebound of the shaft.

28. In a cash register, the combination of a revoluble shaft having oppositely-disposed cranks, tractile springs connected to said cranks, levers fixed on the shaft and having receptacles and bifurcations intersecting the same, a swinging actuator loosely mounted on the shaft and having fingers, means for operating said actuator, and a resilient latch adapted to be depressed by one of the levers and to then rebound and serve as a stop.

29. In a cash register, the combination of a revoluble shaft having oppositely-disposed cranks, tractile springs connected to said cranks, levers fixed on the shaft and having receptacles and bifurcations intersecting the same, a swinging actuator loosely mounted on the shaft and having fingers, means for operating said actuator, a fixed support, a resilient latch adapted to be depressed by one of the levers and to then rebound and serve as a stop, and a tractile spring interposed between the resilient latch and the fixed support.

30. In a cash register, the combination of a casing, a revoluble shaft having oppositely-disposed cranks, tractile springs interposed between the cranks and the casing, check-receiving means on the shaft, means for cooperating with a check in said means to turn the shaft, and means for limiting the rebound of the shaft.

31. In a cash register, the combination of a revoluble shaft, tension means for assist-

ing the revolution of the same, means for limiting the rebound of the shaft, check-receiving means on the shaft, and means for cooperating with a check in said means to turn the shaft.

32. In a cash register, the combination of a revoluble shaft, tension means for assisting the revolution of the same, means for limiting the rebound of the shaft, levers fixed on the shaft and having check-receptacles at its ends and at opposite sides of the shaft, and means for cooperating with a check in one of said receptacles to turn the shaft.

33. In a cash register, the combination of movable annunciators, means for moving the same, movable devices for normally holding the annunciators against movement, a revoluble shaft, levers revoluble with the shaft and having check receptacles and bifurcations intersecting the same and alined with said devices, a swinging actuator having fingers positioned to work through said bifurcations, and means for operating the actuator.

34. In a cash register, the combination of movable annunciators, means for moving the same, movable devices for normally holding the annunciators against movement, a revoluble shaft, levers revoluble with the shaft and having check receptacles and bifurcations intersecting the same and alined with said devices, a swinging actuator having fingers positioned to work through said bifurcations, tension means for assisting in the revolution of the shaft, means for limiting the rebound of the shaft, and means for operating the actuator.

35. In a cash register, the combination of movable annunciators, means for moving the same to the display position, means for moving the annunciators in the opposite direction, movable devices for normally holding the annunciators against movement to the display position, a revoluble shaft, cam levers fixed thereon and adapted to cooperate with the second named means for moving the annunciators, other levers revoluble with the shaft and having check receptacles and bifurcations intersecting the same and alined with said movable devices, a swinging actuator having fingers positioned to work through said bifurcations, and means for operating the actuator.

36. In a cash register, the combination of a casing, a slidable money-drawer therein, a yielding latch therefor, spring means for impelling said drawer outward when the same is released from said latch, a plunger for unlatching the drawer, movable annunciators, means for moving the same to the display position, a bar for moving the annunciators in the opposite direction, a rock shaft having arms connected with said plunger and said bar and also having other arms, movable devices for normally holding

the annunciators against movement to the display position, a revoluble shaft, coin-levers fixed thereon and adapted to cooperate with the last-named arms of the rock-shaft, other levers revoluble with the shaft and having check receptacles and bifurcations intersecting the same and alined with said movable devices, a swinging actuator having fingers positioned to work through said bifurcations, means for operating the actuator, tension means for assisting the revolution of the shaft, and means for limiting the rebound of the shaft.

37. In a cash register, the combination of a casing, a slidable money-drawer therein, a yielding latch therefor, spring means for impelling said drawer outward when the same is released from said latch, a plunger for unlatching the drawer, movable annunciators, means for moving the same to the display position, a bar for moving the annunciators in the opposite direction, a rock shaft having arms connected with said plunger and said bar and also having other arms, movable devices for normally holding the annunciators against movement to the display position, a revoluble shaft, coin-levers fixed thereon and adapted to cooperate with the last-named arms of the rock-shaft, other levers revoluble with the shaft and having check receptacles and bifurcations intersecting the same and alined with said movable devices, a swinging actuator having fingers positioned to work through said bifurcations, means for operating the actuator, tension means for assisting the revolution of the shaft, means for limiting the rebound of the shaft, a gong, and a resilient hammer carried by one of the first-named arms of the rock-shaft and adapted on upward movement thereof to strike the gong.

38. In a cash register, the combination of a casing having check-chutes, revoluble levers fixed together and having check-receptacles and openings intersecting the same, an actuator having fingers to work through said openings, means for operating said actuator, tension means for assisting in the revolution of the levers, and means for limiting the rebound of said levers to register the receptacles with the said chutes.

39. In a cash register, the combination of a casing, a slidable money-drawer therein, a base arranged under and fixed to the casing, a stop-block on the base, a slotted guide

bar receiving said stop and slidable in the base and fixed to the drawer, other bars fixed to the drawer and slidable in the base, a transverse, fore and aft slidable bar bearing against the rear ends of the said bars on the drawer, tractile springs connected to said transverse bar and the base, a yielding latch for engaging said slotted bar on the drawer, a plunger for unlatching the drawer, movable annunciators, means for moving the same to the display position, a bar for moving the annunciators in the opposite direction, a rock-shaft having arms connected with said plunger and said bar and also having other arms, movable devices for normally holding the annunciators against movement to the display position, a revoluble shaft, coin-levers fixed thereon and adapted to cooperate with the last-named arms of the rock-shaft, other levers revoluble with the shaft and having check receptacles and bifurcations intersecting the same and alined with said movable devices, a swinging actuator having fingers positioned to work through said bifurcations, means for operating the actuator, tension means for assisting the revolution of the shaft, and means for limiting the rebound of the shaft.

40. In a cash register, the combination of a casing, and a money-drawer slidable therein and comprising a body having a drawer-way extending at an angle to the line of slidable movement of the body and also having an apertured wall at one end of said drawer-way, and a bill-drawer slidable in said drawer-way, toward and from said apertured wall, and adapted when closed to rest with its outer end inside the line of one side of the body.

41. In a cash register, the combination of a casing having a drawer-opening, check-controlled devices therein, a check-drawer comprising a carrier movable through said opening, receptacles, one complementary to each of said check-controlled devices, arranged on said carrier and separable from each other and the carrier, and locking means for securing the drawer in the casing.

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

EDWARD VAN CAMP.

Witnesses:

CHARLES E. HOLWERDA,
ELDON T. ROADRUCK.