

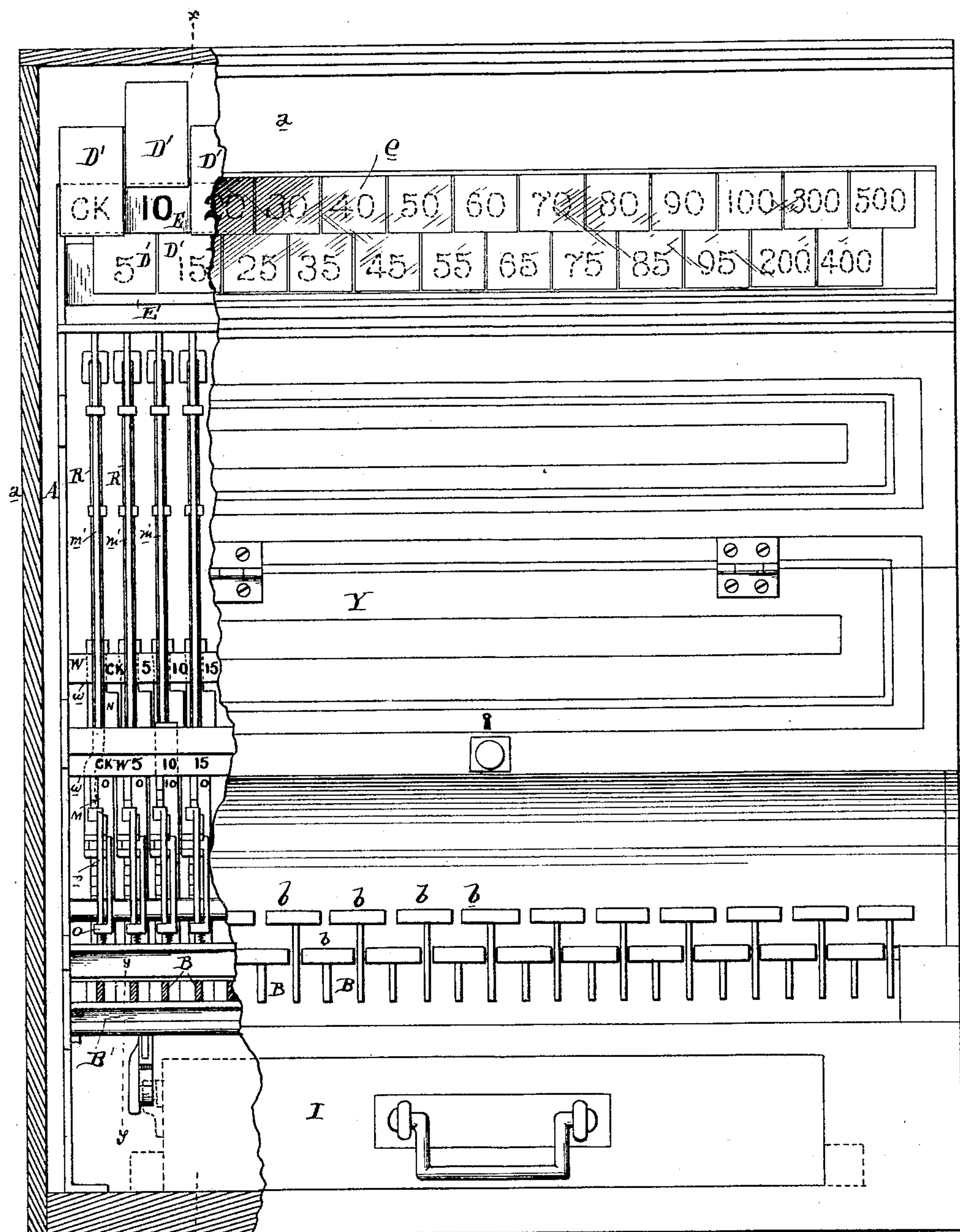
(No Model.)

3 Sheets—Sheet 1.

H. A. HERR.  
CASH REGISTER AND INDICATOR.

No. 451,232.

Patented Apr. 28, 1891.



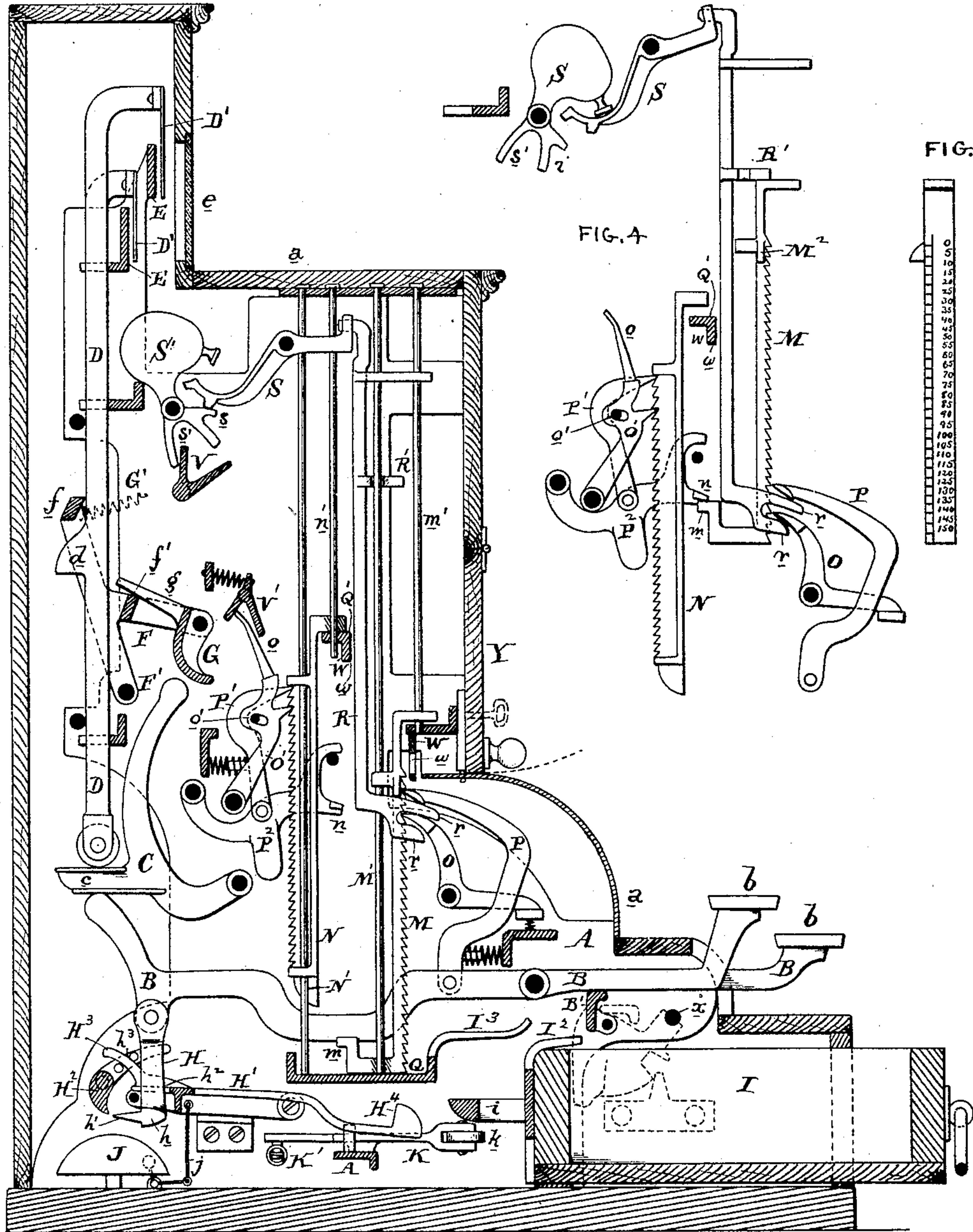
(No Model.)

3 Sheets—Sheet 2.

H. A. HERR.  
CASH REGISTER AND INDICATOR.

No. 451,232.

Patented Apr. 28, 1891.



WITNESSES:

*Harry Dunning*  
*Wm. M. Dunning*

FIG. 2

INVENTOR:

*Horner A. Herr*  
*By Wm. Dunning*

*Wm. Dunning*



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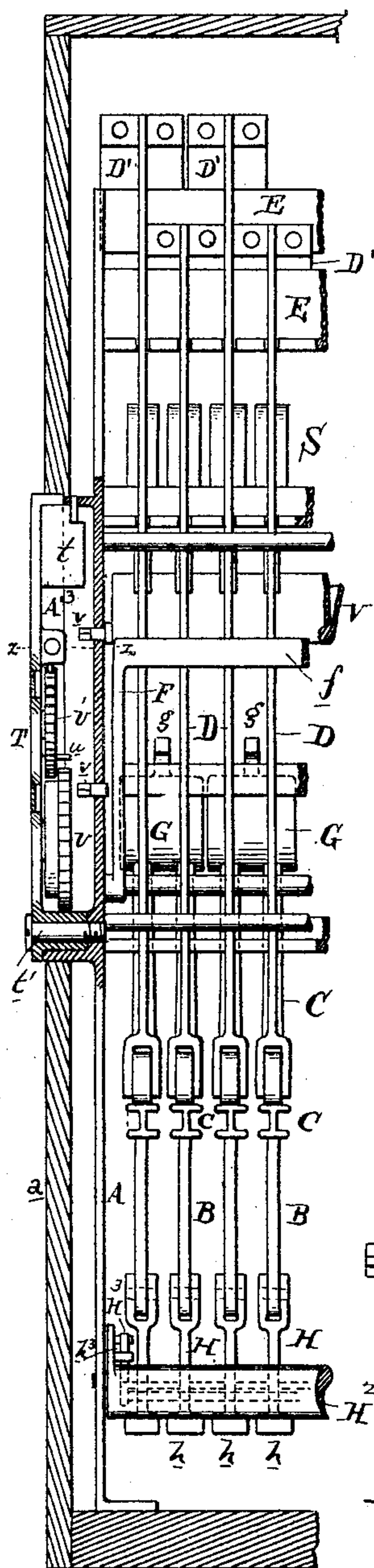


FIG. 3

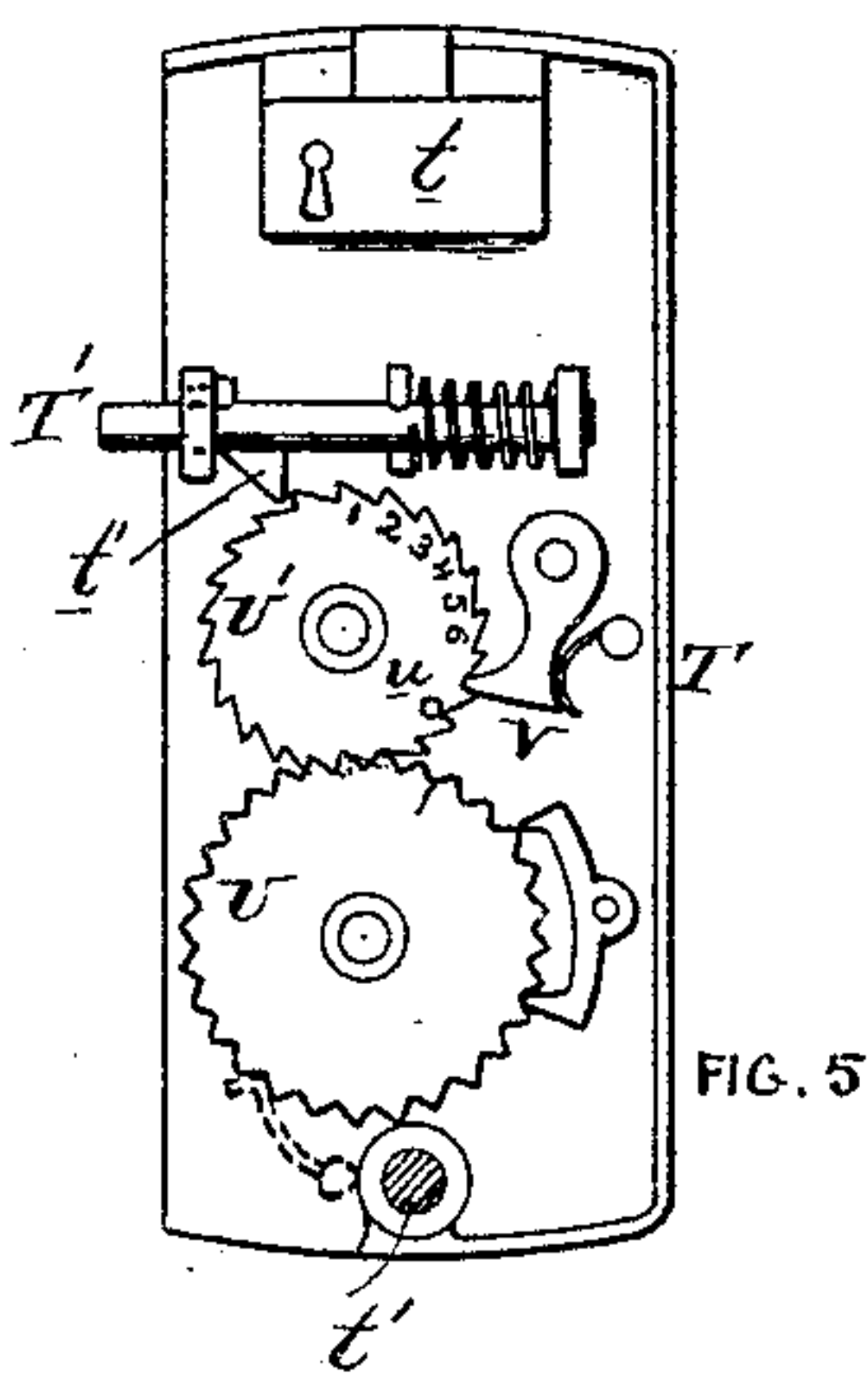


FIG. 5

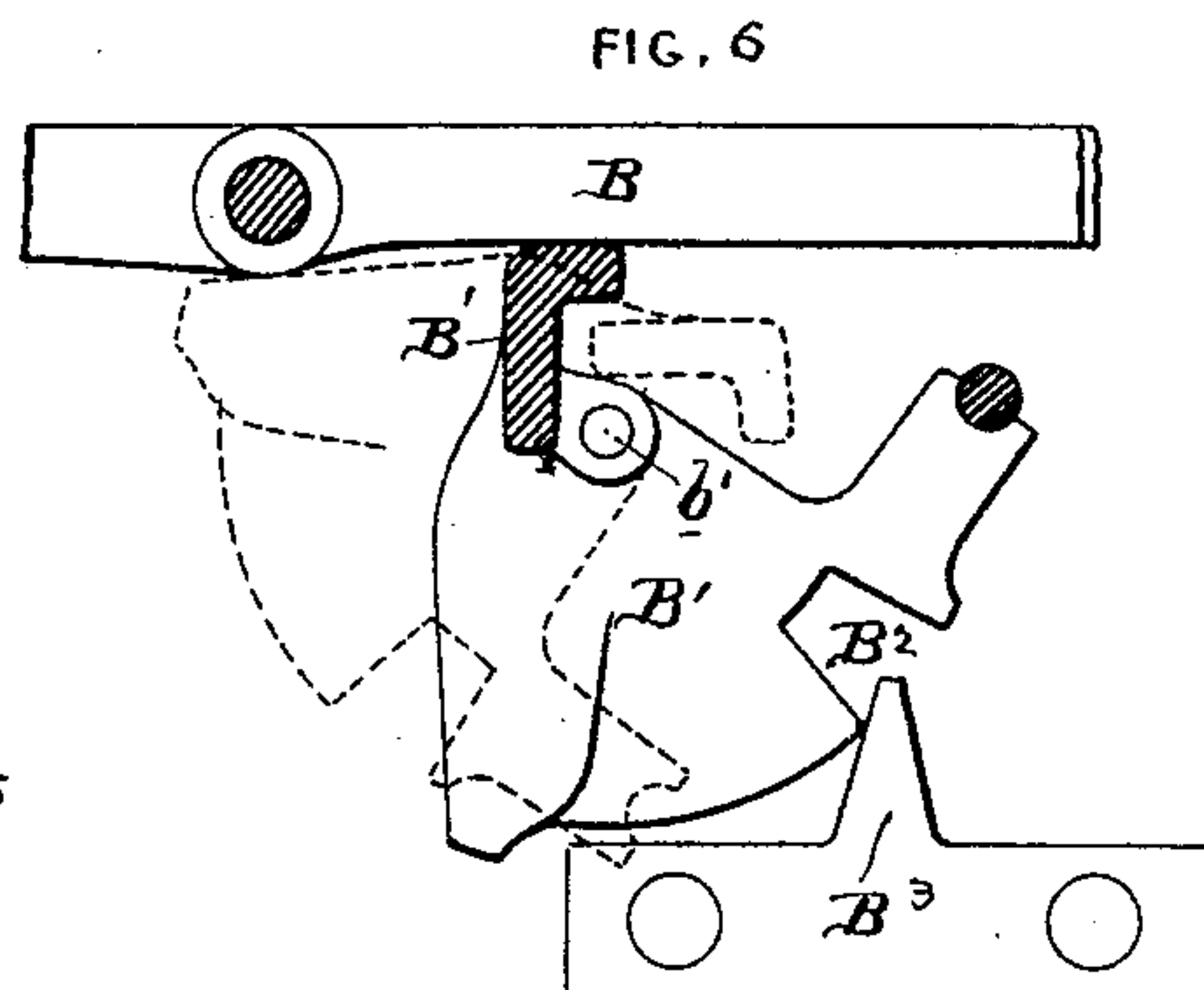


FIG. 6

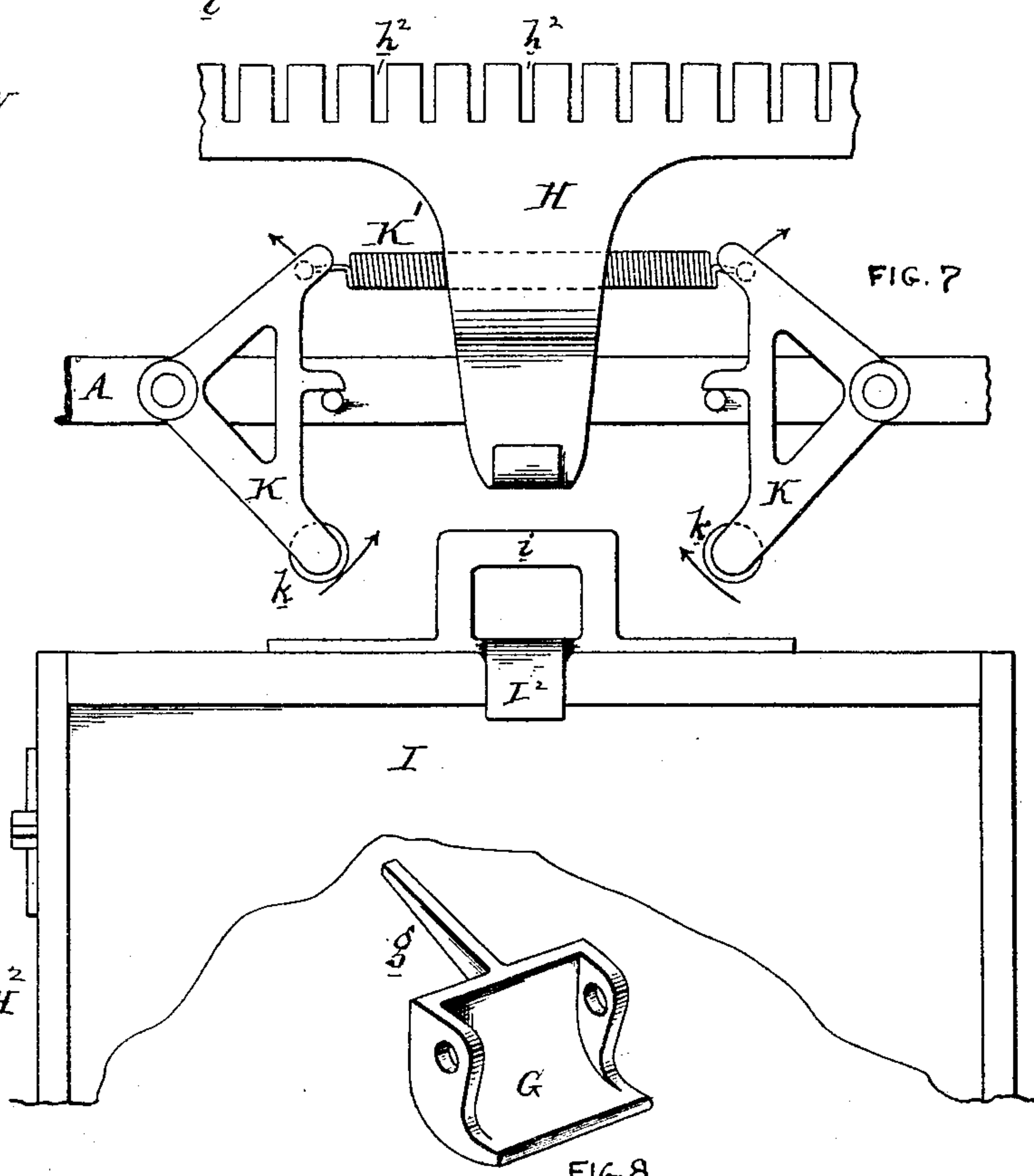


FIG. 7

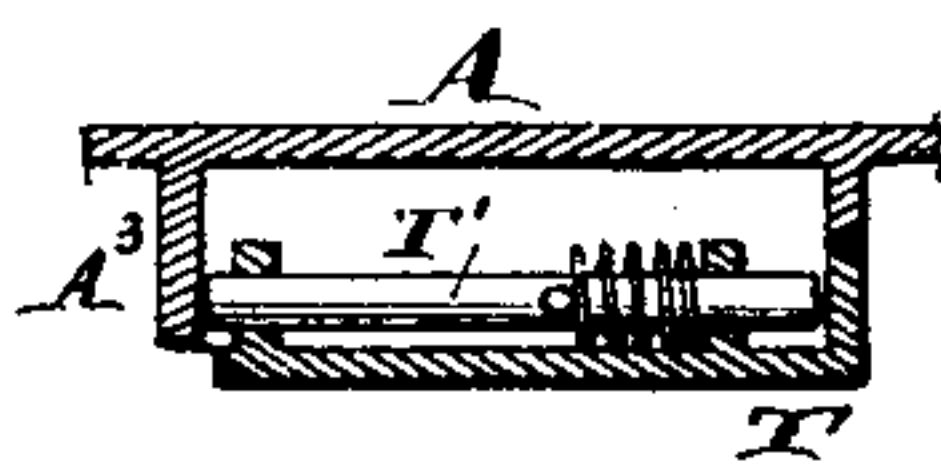


FIG. 10

WITNESSES:

*Henry D. ...*  
*...*

INVENTOR:

*Homer A. Herr*  
*By his atty*  
*...*



# UNITED STATES PATENT OFFICE.

HOMER A. HERR, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, TO THE AMERICAN CASH REGISTER COMPANY.

## CASH REGISTER AND INDICATOR.

SPECIFICATION forming part of Letters Patent No. 451,232, dated April 28, 1891.

Application filed August 3, 1889. Serial No. 319,660. (No model.)

*To all whom it may concern:*

Be it known that I, HOMER A. HERR, of the city and county of Philadelphia, and State of Pennsylvania, have invented an Improvement in Cash-Registers, of which the following is a specification.

My invention has reference to cash-registers; and it consists of certain improvements, all of which are fully set forth in the following specification and shown in the accompanying drawings, which form part thereof.

My invention is for an automatic cash register and indicator adapted to record the amount of the purchases and disclose or indicate to the purchasers the amount of individual purchases.

Among the novel features of my invention may be mentioned a series of vertically-movable registers, one or more for each key, the indicators for the amount of the purchase operated by moving from in front of the figures a blank screen, and thereby exposing the figures corresponding to the key struck, the locking of all of the keys but the one struck the instant said key is moved to a slight extent, and resetting devices controlled by an indicator-lock, which shall indicate the number of times said lock is opened. In addition to these features are a number of details of minor importance, fully referred to hereinafter.

Referring to the drawings, Figure 1 is a front elevation of my improved cash-register with a portion of the frame and keys broken away. Fig. 2 is a sectional elevation of same on line  $x x$  of Fig. 1. Fig. 3 is a sectional elevation of a portion of my machine, looking from the rear and with the covering at the back broken away. Fig. 4 is a side elevation of the registering mechanism in a different position from that shown in Fig. 2, and shows such mechanism removed from the frame of the machine and other operating devices. Fig. 5 is a rear elevation of the registering mechanism for registering the number of times the door has been open for resetting the machine. Fig. 6 is a sectional side elevation on line  $y y$  of Fig. 1, showing the means for locking the levers when the draw is opened. Fig. 7 is a plan view showing the

lock for holding the draw closed and the spring device for forcing the draw out upon being released from the lock. Fig. 8 is a portion of one of the dogs used in connection with the indicator mechanism. Fig. 9 is a front elevation of one of the registering-slides, and Fig. 10 is a section on line  $z z$  of Fig. 3.

Before describing the invention in detail I would remark that for each operating-lever there is a corresponding duplication of mechanism for registering and for indicating the amount of the purchases, with the exception that there is but a single drawer for all of the levers, and which is controlled by any and all of said levers or keys.

A is the main frame of the machine, and consists of a casting of any particular shape desired. To this frame are pivoted a series of levers B, having finger-plates  $b$ , upon which is marked the amount to be indicated and registered by a movement of the lever. These levers are in effect keys, and are adapted to be struck by the fingers, one or more at a time. The finger-plate portions  $b$  extend beyond the case A, so as to be given operative position. The other ends of the levers project inwardly and produce directly or indirectly the various movements necessarily resulting from the construction embodied in my invention.

I will describe the parts employed in connection with one lever B, and thereby in effect describe the construction of all the levers and their mechanism. The inner end of the lever B rests against the under side of a table  $c$ , projecting from a pivoted arm C. The upper surface of the table supports, through a roller or otherwise, a vertical rod D, having at its middle a hooked portion  $d$ , and at its top a screen  $D'$ , which, when the rod D is down, slides or screens the tablet E, upon which is marked the amount of the purchases, corresponding to the finger-plate  $b$  of the lever B.

$e$  is a glass, through which the tablet may be observed, as indicated in Fig. 1.

F is a frame pivoted to the main frame A at  $F'$ , and is provided at its upper end with a catch  $f$ , adapted to project under the hooked portion  $d$  of the rod D, and thereby tempo-



rarily sustain it in an elevated position, and so as to expose the tablet E. Pivoted to the arm of this frame F is a dog G, having an arm *g*, which in its downward movement strikes against and crosses frame *f'* of the frame F and tends to move with it. The other end of the dog is made curved and expanded, as shown, for instance, in Figs. 2, 3, and 8, and this expanded portion of the dog is adapted to be struck by the upper or free end of the pivoted arm C. It will now be seen that by depressing the lever B at *b* the rod D is raised, and the arm C is oscillated thereby, the end striking the expanded portion of the dog G, and through it tilting the portion *f* of the frame F backward, to let the hooked portion *d* of the rod D pass above it. Immediately this takes place the end of the arm C slips beyond the dog G and allows the frame F to oscillate in the opposite direction, causing the catch portion *f* to catch under the hooked portion *d*, and thereby hold the screen D' and rod D in an elevated position, exposing the tablet E to view. The weight of the series of dogs acts to bring the arm F normally to the position shown in Fig. 2, and also to cause it to move in locking the elevated rods D. It is evident, however, that a spring G' might be used, if so desired, to return the frame F to the position shown. By liberating the lever B the arm C returns to the position shown in Fig. 2, and the dog is oscillated like a pawl, allowing the descent of the arm C without operating the frame F. It will thus be seen that the screen D', corresponding to the lever B, which is struck, is raised and locked in said raised position, while the lever B returns to its original position by the action of gravity.

To the inner end of each of the levers B is pivoted a hanging arm H, having at the bottom a head *h*, (shown in Figs. 2 and 3,) which arms project through slots *h*<sup>2</sup> in the frame H', which is pivoted to the main frame A. The parts H may be formed with levers B in any suitable manner so that they so move with said levers. The vertical movement of the arm H, caused by the lever B, oscillates the frame H' so as to depress the locking-hook H<sup>4</sup> at the opposite end thereof. This hook H<sup>4</sup> catches upon a catch-bar *i*, secured to the rear of the drawer I, which drawer is arranged at the lower part of the machine. When the drawer is shoved in, the hook is depressed until it passes beyond the catch-bar *i*, and the weight of the outer end of frame H' causes said hook to snap upward and lock the drawer. To prevent the drawer being forced upward at moment of locking, the piece I<sup>2</sup> may be employed at its upper part and a guide I<sup>3</sup> be used on the main frame. To the rear of the end of the frame H' is a bell J, which is operated by a link connection *j*, moved by the said frame H', or, if desired, by any other equivalent movable portion of the machine.

To the rear of the arm H is a frame H<sup>2</sup>, pivoted to the main frame, and may be oscillated

by a projection H<sup>3</sup> from the frame H', working in a guide *h*<sup>3</sup> on said frame H<sup>2</sup>. The object of this mechanism last described is that when the frame H' is raised by the arm H and lever B the frame H<sup>2</sup> is oscillated and its lower part is forced above the projections *h'* on the arms H of the various levers B, except the one which is operating on the frame H', this one having risen sufficiently to enable its projection *h'* to have passed above the end of frame H<sup>2</sup> in its inward movement. It is immaterial to my invention how the projections *h'*, over which the frame H<sup>2</sup> passes, are connected with the levers B so long as they are moved by the movement given to said levers, and the frame acts to lock said projections against movement to lock the corresponding levers. This locks all the levers but the one actuated intentionally, so as to prevent accidental registering when the drawer is closed. It is not intended to register but by the action of one key at a time. When the lock H<sup>4</sup> releases the drawer D, the two bell-cranks K, through their rollers *k*, force the drawer outward, owing to their ends being drawn together by the action of the spring K'. This is clearly shown in Fig. 7. The drawer in this figure is out, and if pushed inwardly would strike the rollers *k* and move the bell-cranks K, as indicated by arrows, and expand the spring K', thereby storing energy which might be utilized upon the release of the drawer to positively force it open.

It will be seen from the construction above described that I have in a cash-register a series of operating-levers provided with projecting parts *h'*, which are movable with the levers, and said devices are combined with a pivoted frame H<sup>2</sup>, adapted to be thrown into the path of the projecting parts of said operating-levers, so as to prevent the movement of all of said levers except the lever or levers intended to be struck, and a movable locking-frame operated by one of the levers, and common to all of said levers for oscillating the pivoted frame to lock all of the levers than the lever or levers struck, to prevent such locked levers from being moved or operating the registering parts or slides.

Below the levers B is a frame B', pivoted to the main frame of the machine at *b'*, and is adapted to be turned up under the levers when the drawer I is pulled out, so as to prevent any of the levers being accidentally pushed down. To operate this frame B' there is a tooth B<sup>3</sup> on the side or end of the drawer I, which fits into a notch B<sup>2</sup> on the frame. This is clearly shown in dotted lines in Fig. 2 and in detail in Fig. 6. Referring to the latter figure, when the drawer is pushed in the frame B' assumes the position shown in dotted lines, releasing the levers B.

I will now refer to the registering mechanism, which is clearly shown in Figs. 2 and 4. There may be one or more registering-slides to each lever B, two being shown. For small machines only one would be used. The front



slide M is formed with ratchet-teeth and is guided upon the upright guide-rods  $M'm'$ , so as to be capable of being moved vertically by a pawl  $p$ , hinged to the lever B. The face of the slide M is formed with figures corresponding to the number of notches or teeth multiplied into the amount of the purchase. Thus if the slide is to register the number of five-cent sales, then for the first tooth it will have a mark 5, for the second 10, for the third 15, and so on. This registering-slide when raised by the pawl P moves back of a plate W, having the amount of the purchase corresponding to this slide marked thereon, as shown in Fig. 1, and the figures on the slide are exposed under the edge  $w$  and may be read through the doorway when the door Y is opened. If desired, the opening under the edge  $w$  may be a slot. When the pawl P raises the slide, the said slide is held in its raised position by the sustaining-pawl  $o$  working in the same ratchet-teeth. In taking the amount of the sum total of the purchases it is necessary to add together the amounts shown on the registering-slides M exposed immediately below the edge  $w$ . After the slide has been raised and it is wished to reset the machine to zero means are operated by hand which may remove the action of the pawls and allow the slide M to fall so as to rest upon the frame Q, Fig. 2. This mechanism consists of a sliding frame R, guided upon the rods  $M'm'$  and to the rear of the slide M, having at the bottom the two teeth  $r r$ , which project under the pawls, and so as to throw them out when the frame R is raised, and at or near its top a stop  $R'$  in the path of the slide M. The frame R is hung upon the lever S, pivoted to the main frame, and this lever S is operated by a pivoted weight  $S'$  to lift the frame R. The free end of the lever S rests against the projection or tooth  $s$  of the weight  $S'$ . When the slide M is raised sufficiently high that it strikes the stop  $R'$ , the frame R is raised, depressing the free end of the lever S. This oscillates the weight  $S'$  and causes it to fall over upon the lever S, as shown in Fig. 4, causing the frame R to be raised, and by the teeth  $r r$  both pawls P and O to be thrown out of action with the ratchet-teeth of the registering-slide. The instant this is done the slide M falls by gravity until it is arrested by the frame Q. If one set of registering-slides is used, then it will never happen that the weight  $S'$  will be operated automatically, but will be oscillated, when desired, by the rock-bar V, formed, essentially, with two ribs or teeth, and being moved by hand so as to act upon the teeth or fingers  $s s'$  of the weight  $S'$  to throw it upon the lever S. When the slides M have thus been reset, the weight  $S'$  is thrown back again into the position shown in Fig. 2, so as to allow the pawls P and O to come into play once more.

An additional registering-slide N may be used, if desired, and would be placed to the rear of the slide M and so that the figures

can be seen through the spaces between the other slides and below the edge  $w$  of the rear frame W, upon which are the numbers corresponding to the numbers on the corresponding levers B. This inner registering-slide N is guided upon the rods  $N'n'$ , and is also furnished with ratchet-teeth, as in case of the slide M. Pivoted to the rear of the slide N is an arm  $P^2$ , which may be oscillated vertically, being raised by the upward movement of the projection  $m$  on the slide M, striking part  $n$  of the arm, and falling by gravity when the slide M descends. Pivoted to this arm  $P^2$  is the actuating-pawl P for actuating the slide M with a step-by-step movement. This mechanism operates to move the slide one tooth for each full movement of the slide M.  $O'$  is a pawl used to support the slide N when raised by the pawl  $P'$ . This pawl  $O'$  has an upward projection  $o$ , which may be actuated by the pivoted rock-bar V' when it is desired to reset the machine. When the pawl  $O'$  is moved back to liberate the slide N in resetting the machine, it moves back with it the rod  $o'$ , and this, acting on the pawl  $P'$ , causes it to be moved out of contact with the slide N, also allowing said slide to fall by gravity.

I would call attention at this point that after the slides are in the position shown in Fig. 4 the slide M falls, and when about its lowest position the projection or lug  $M^2$  thereof strikes the frame R and pulls it down, oscillating the lever S, so as to throw the weight  $S'$  back to the position shown in Fig. 2 and allow the pawls P and O to once more come into action. The mechanism is therefore automatic. Every time the drawer is opened it is evident that the bell J rings, and thereby sounds an alarm.

The frames V V' for resetting the machine have their ends  $v v$  projecting through the side of the main frame A and adapted to be operated with a key. Arranged over these ends is a cover T, pivoted to the main frame at  $t'$ , and provided with a lock  $t$  to lock it in its closed position. In addition to this lock there is a spring-bolt T', which is provided with a tooth  $t'$ , adapted to act upon the ratchet-wheel V'. This ratchet-wheel is prevented from rotating backward by a pawl V and is furnished with a pin  $u$ , which, acting on the teeth of the notched wheel U, induces it to make a given portion of a revolution for every complete revolution of the wheel U'. The latter wheel U is prevented against accidental movement by the double pawl  $u'$ , or, if desired, by a spring. (Shown in dotted lines.) The wheels U and U' are counting or indicating wheels and indicate the number of reciprocations of the bolt T', and hence the number of times the cover is removed for resetting the machine. When the cover is pushed into locking position, the bolt T strikes the portion A, Fig. 3, of the frame A and is shifted. This mechanism prevents the at-



tendant resetting the machine after having received and registered a number of purchases.

The general shape of the machine may be varied to suit the manufacturer, and may be all of metal or wood and metal combined. The front portion of the frame is furnished with a door Y, which opens outwardly and exposes to view the records, as shown on the slides M and N immediately below the plates W. This door is kept locked, except when adding up the amounts of the records of the several slides M and N.

I do not confine myself to the mere details of construction, as it is quite evident that they may be modified in various ways without departing from my invention.

In this application I do not claim the registering devices and locking-cover as applied to the resetting mechanism, as that forms the subject-matter of my application, Serial No. 325,415, filed September 28, 1889.

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

1. In a cash-register, the combination of a series of screens and upwardly-movable screen-actuating rods, a supporting-frame extending across the machine, a series of tablets fixed or immovably connected to said frame and arranged, respectively, back of the respective screens, a series of levers, keys, or parts adapted to be operated by the hands, of which there is one for each screen-actuating rod, and connecting mechanism between each of the screen-actuating rods and the corresponding lever-key or hand-operated part to raise said rod and screen and expose a tablet equaling in value the key or part operated.

2. In a cash-register, the combination of a series of screens and upwardly-movable screen-actuating rods, a supporting-frame extending across the machine, a series of tablets fixed or immovably connected to said frame and arranged, respectively, back of the respective screens, a series of levers, keys, or parts adapted to be operated by the hand, of which there is one for each screen-actuating rod, connecting mechanism between each of the screen-actuating rods and the corresponding lever-key or hand-operated parts to raise said rod and screen and expose a tablet equaling in value the key or part operated, and a lock to hold the screens when lifted in a raised position.

3. In a cash-register, the combination of a series of stationary tablets fixed immovably on a stationary frame, a series of movable screens, of which there is one to each tablet, movable upward in front of its respective tablet, a series of screen-actuating rods extending rearward and upward of its respective tablet, a connection between the rod and its screen to hold them firmly together, and a separate key or hand-operating mechanism to operate each of said screen-rods to expose

any tablet equaling in value any key operated.

4. In a cash-register, the combination of a series of stationary tablets fixed immovably on a stationary frame, a series of movable screens, of which there is one to each tablet, movable upward in front of its respective tablet, a series of screen-actuating rods extending upward and rearward of said tablet-holding frame, a connection between said rods and screens to hold them firmly together, a separate key or hand-operating mechanism to operate each of said screen-rods and thereby said screens, exposing the value of any key operated, and a series of registering parts or slides, one to each tablet, to register the value of each key every time the corresponding value is indicated by its corresponding tablet.

5. In a cash-register, the combination of a series of pivoted levers or keys adapted to be oscillated by the hand with a corresponding series of vertically-movable registering-slides so arranged that each slide is operated by a different lever or key and guides for said slide.

6. In a cash-register, the combination of a series of pivoted levers or keys adapted to be oscillated by the hand with a corresponding series of vertically-movable registering-slides having teeth and so arranged that each slide is operated by a different lever or key, separate movable pawls for said slides operated by the respective levers, stationary pawls for supporting the slides, and guides for said slides.

7. In a cash-register, the combination of a series of pivoted levers or keys adapted to be oscillated by the hand with a corresponding series of vertically-movable registering-slides having teeth and so arranged that each slide is operated by a different lever or key, separate movable pawls for said slides operated by the respective levers, stationary pawls for supporting the slides, a separate frame common to each pair of pawls (supporting and operating pawls) adapted to move them into or out of contact with the teeth on the slides, and guides for said slide.

8. In a cash-register, the combination of a pivoted lever or key adapted to be oscillated by hand with a vertically-movable register-slide having teeth, a pawl for moving the slide connected to the pivoted lever or key, a supporting-pawl, a frame for throwing both pawls into or out of contact with the teeth of the slide, a lever for moving said frame upward to disconnect the pawls, a pivoted weight actuated by the last-mentioned lever to depress one end of it to lift the frame, and a connection between the register-slide and frame, whereby at the extreme upward and downward movements of the said slide the frame is moved to throw the pawls out of and into contact, respectively.

9. In a cash-register, the combination of a pivoted lever or key adapted to be oscillated



by hand with a vertically-movable register-slide having teeth, a pawl for moving the slide connected to the pivoted lever or key, a supporting-pawl, a frame for throwing both  
 5 pawls into or out of contact with the teeth of the slide, a lever for moving said frame upward to disconnect the pawls, a pivoted weight actuated by the last-mentioned lever to de-  
 10 pression one end of it to lift the frame, a connection between the register-slide and frame, whereby at the extreme upward and downward movements of the said slide the frame is moved to throw the pawls out of and into  
 15 contact, respectively, and a hand-operated frame to move the pivoted weight independent of the movement of the frame and slide.

10. In a cash-register, the combination of a pivoted hand-operated lever or key, two vertical registering-slides having teeth, a pawl  
 20 carried by the hand-operated lever or key to move one of the pawls, a pawl operated by one of the slides to operate the other slide when the former has been fully raised, and  
 25 supporting pawls or catches to sustain them during the backward movement of the operating-pawls.

11. In a cash-register, the combination of a pivoted hand-operated lever or key, two vertical registering-slides having teeth, a pawl  
 30 carried by the hand-operated lever or key to move one of the pawls, a pawl operated by one of the slides to operate the other slide when the former has been fully raised, sup-  
 35 porting pawls or catches to sustain them during the backward movement of the operating-pawls, and resetting mechanism, substantially as set out, for withdrawing the pawls of  
 40 both slides to let them fall.

12. In a cash-register, the combination of a  
 40 pivoted hand-operated lever or key, two vertical registering-slides having teeth, a pawl carried by the hand-operated lever or key to  
 45 move one of the pawls, a pawl operated by one of the slides to operate the other slide when the former has been fully raised, sup-  
 50 porting pawls or catches to sustain them during the backward movement of the operating-pawls, and automatic resetting mechanism, substantially as described, for resetting the  
 55 first-mentioned slide upon its being fully raised by the hand-operated lever or key.

13. In a cash-register, the combination of a series of stationary tablets fixed immovably  
 55 on a stationary frame, a series of movable screens, of which there is one to each tablet, movable upward in front of its respective  
 60 tablet, a series of screen-actuating rods extending upward and rearward of said frame and having a connection between said rods  
 65 and screen to hold them firmly together, a separate key or hand-operating mechanism to operate each of said screen-rods, and thereby said screens, exposing the value of any key  
 70 operated, a lock to lock said screens in elevated position, and a series of registering  
 75 parts or slides, one for each tablet, by which to register the value of each key every time

its corresponding value is indicated by its corresponding tablet.

14. In a cash-register, the combination of 70  
 a series of stationary tablets fixed immovably on a stationary frame, a series of movable  
 screens, of which there is one to each tablet, movable upward in front of its respective  
 tablet, a series of screen-actuating rods ex- 75  
 tending rearward and upward of said frame and having a connection between said rod  
 and its respective screen to hold them firmly together, a separate key or hand-operating  
 mechanism to operate each of said screen- 80  
 rods, exposing the value of any key operated, a series of registering parts, of which there is  
 one to each tablet, a drawer to contain the money, and a lock actuated by anyone of the  
 series of keys to open the drawer simultane- 85  
 ously with the movement of the registering part or corresponding tablet-screen of said  
 key.

15. In a cash-register, the combination of  
 a series of pivoted levers or keys, a pivoted 90  
 locking-frame having upon one end a locking hook or catch and on the other a series of  
 slots or notches, a series of hanging arms having heads at the bottom, connected to the  
 levers or keys at the top, and extending 95  
 through the slots or notches of the locking-frame at the bottom, so that when lifted their  
 heads shall lift the locking-frame, and a drawer having a locking-bar or part into which  
 the hook of the locking-frame catches. 100

16. In a cash-register, the combination of  
 a series of pivoted levers or keys, a pivoted  
 locking-frame having upon one end a lock-  
 ing hook or catch and on the other a series of  
 slots or notches, a series of hanging arms 105  
 having heads at the bottom, connected to the levers or keys at the top, and extending  
 through the slots or notches of the locking-frame at the bottom, so that when lifted their  
 heads shall lift the locking-frame, a drawer 110  
 having a locking-bar or part into which the hook of the locking-frame catches, and a  
 spring to force the drawer open when re-  
 leased.

17. In a cash-register, the combination of a 115  
 series of pivoted levers or keys, a pivoted locking-frame having upon one end a locking hook  
 or catch and on the other a series of slots or notches, a series of hanging arms having  
 heads and projecting parts at the bottom, con- 120  
 nected to the levers or keys at the top, and extending through the slots or notches of the  
 locking-frame at the bottom, so that when lifted their heads shall lift the locking-frame,  
 a movable frame having an edge adapted to 125  
 be thrust above the projections on the hanging arms and moved by the locking-frame to  
 be forced above all of the projections of the arms, except the one operating the locking-  
 frame, and a drawer having a locking-bar or 130  
 part in which the hook of the locking-frame catches.

18. In a cash-register, a series of hand-op-  
 erated levers or keys, a corresponding series



of stationary tablets with figures marked thereon to correspond to the figures used on or in connection with the levers or keys, a series of movable screens or tablet-covers to normally shield the tablets and each operated by a different one of the levers or keys, a drawer for containing the money, a lock actuated by either or all of the levers or keys to open the drawer simultaneously with the movement of any screen or tablet-cover, and a pivoted frame operated by the drawer to be forced up when the drawer is open to prevent any of the hand-operated levers or keys being depressed.

19. In a cash-register, the combination of a pivoted hand-operated lever or key, a vertically-movable registering-slide actuated thereby, a movable drawer, a lock for holding the drawer closed, actuated by the hand-operated lever or key to release the drawer, and a lever-locking frame operated by the drawer when opening to prevent any of the hand-operated levers or keys being depressed while said drawer remains open.

20. In a cash-register, the combination of a series of pivoted levers or keys, a series of vertically-movable registering-slides actuated by said levers and having figures marked upon their front portions, and a frame running entirely across and in front of said slides and having figures marked thereon in front of each slide corresponding to the first figures upon the respective slides.

21. In a cash-register, the combination of a series of operating levers or keys, a series of vertically-movable registering-slides, mechanism, substantially as set out, for lifting and supporting said slides independently, automatic mechanism, substantially as set out, for automatically and independently resetting each of said slides upon being fully raised, and hand-resetting mechanism, substantially as set out, for simultaneously resetting the entire series of slides.

22. In a cash-register, the combination of a series of stationary tablets arranged immovably in two rows across the machine, one above the other, and also having one row slightly in advance of the other, one of which rows contains consecutive odd numbers and the other consecutive even numbers, a series of vertically-movable screens or covers, one for each tablet, an independent operating lever or key for each screen or cover, whereby each lever or key can only expose one tablet and that corresponding to the valuation of the lever or key actuated, and a lock to hold the screen in position, exposing the tablet until the next key or lever is operated.

23. In a cash-register, the combination of a series of tablets having figures marked thereon, and which tablets are arranged in the same or substantially the same plane across the machine, a series of independent screens or covers, one for each tablet, also arranged in a row across the machine and side by side, operating-rods for said screens, a series of in-

dependent levers or keys connecting, respectively, one with each of the respective screens through their rods, so that any lever can only move one screen, a drawer, a lock for the drawer, and a connection between the lock and all of the levers or keys, whereby any lever or key may unlock the drawer.

24. In a cash-register, the combination of a series of tablets having figures marked thereon, and which tablets are arranged in the same or substantially the same plane across the machine, a series of independent screens or covers, one for each tablet, also arranged in a row across the machine and side by side, operating-rods for said screens, a series of independent levers or keys connecting, respectively, one with each of the respective screens through their rods, so that any lever can only move one screen, a drawer, a lock for the drawer, and a connection between the lock and all of the levers or keys, whereby any lever or key may unlock the drawer, and a spring to force open the drawer upon being unlocked.

25. In a cash-register, the combination of a series of tablets having figures marked thereon, and which tablets are arranged in the same or substantially the same plane across the machine, a series of independent screens or covers, one for each tablet, also arranged in a row across the machine and side by side, operating-rods for said screens, a series of independent levers or keys connecting, respectively, one with each of the respective screens through their rods, so that any lever can only move one screen, a drawer, a lock for the drawer, and a connection between the lock and all of the levers or keys, whereby any lever or key may unlock the drawer, a spring to force open the drawer when unlocked, and a lock actuated by the drawer to lock the levers or keys against movement while the drawer is open.

26. In a cash-register, the combination of a series of tablets arranged across the machine in a row, a series of screens or covers therefor similarly arranged, a series of hand-operated levers or keys, each of which operates one only of the screens, and a pivoted lock to lock all of the levers or keys against movement except the one struck and operated by the lever or key struck, whereby no tablet shall be exhibited except the one corresponding to the key or lever positively struck or operated.

27. In a cash-register, the combination of a series of stationary tablets having figures and fixed immovably on a stationary frame, a series of movable screens, one to each tablet, movable upward in front of its respective tablet, a series of screen-actuating rods extending upward and rearward of said tablet-supporting frame, having a connection between said rods and their respective screens to hold them firmly together, a series of keys or hand-operating parts, one to each tablet, to operate said screens for showing the value of any key operated on its corresponding tablet, a series



of registering parts, one to each tablet, and in which the initial figure on said registering part corresponds to the figure on its tablet and operating-key, a drawer for containing the money, a lock actuated by any one of the series of keys to open the drawer, and a spring to throw the drawer open on being released by said lock.

28. In a cash-register, the combination of a series of stationary tablets with figures fixed immovably thereon, secured to an immovable frame, a series of movable screens movable upward in front of said tablet, a series of screen-holding rods movable upward and rearward with respect to said tablet-holding frame and connected with said screen to hold the screens and their respective rods together, a series of keys or hand-operating parts, one to each tablet, to operate said screens, showing the value of any key operated on its respective tablet, a series of registering parts or slides onto each key, the initial figure on said registering part corresponding to its corresponding tablet and operating-key, and all the other figures being multiples of the initial ones, a drawer, a lock for the drawer, a connection between the lock and all the levers or keys, whereby any lever or key may unlock the drawer, a spring to force open the drawer when unlocked, and a lock actuated by the drawer to lock the levers or keys against movement while the drawer is open.

29. In a cash-register, the combination of a series of tablets arranged across the machine in a row, a series of screens or covers therefor similarly arranged, a series of hand-operated levers or keys, each of which operates one only of the screens, a series of registering parts or slides, one for each key, the initial figure on which part corresponds to the figure on the operating-key and to the figure on the tablet expressed thereby, and a pivoted lock to lock all the levers or keys against movement except the one struck and operated by the lever or key struck, whereby no tablet can by accident be exhibited excepting the one corresponding to the key or lever operated.

30. In a cash-register, a series of operating-levers provided with projecting parts movable therewith, a series of registering parts operated thereby, a pivoted frame adapted to be thrown into the path of the projecting parts of said operating-levers, so as to prevent the movement of all of said levers except the lever or levers intended to be struck, a movable locking-frame operated by one of the levers and common to all of said levers for oscillating the pivoted frame to lock all of the levers than the lever or levers struck to prevent such locked levers from being moved or operating the registering parts, a movable drawer, and a lock actuated by the movable locking-frame to release the drawer upon any lever being struck.

31. In a cash-register, a series of operating-levers provided with projecting parts movable therewith, a series of registering parts operated thereby, a pivoted frame adapted to be thrown into the path of the projecting parts of said operating-levers, so as to prevent movement of all of said levers except the lever or levers intended to be struck, a movable locking-frame operated by any one of the levers and common to all of said levers for oscillating the pivoted frame to lock all of the levers than the lever or levers struck to prevent such locked levers from being moved or operating the registering parts, a movable drawer, a lock actuated by the movable locking-frame to release the drawer upon any lever being struck, and a pivoted locking-bar adapted to be operated by the drawer and thrown up under the levers when the drawer is open to prevent any of the levers being depressed.

32. In a cash-register, the combination of a drawer, a movable locking-frame therefor, having a series of notches or slots, a series of pivoted levers or keys corresponding to the different amounts to be registered and provided with extending parts which project through the slots or notches in the locking-frame, and furnished with projections adapted to catch upon and move the said frame upon the movement of any of the levers, a pivoted frame adapted to be oscillated positively by the movement of the locking-frame to lock all of the operating levers or keys against movement except the one moved to operate the locking-frame, and registering devices operated by the levers or keys to register the amount of the purchases.

33. In a cash-register, the combination of a drawer, a movable locking-frame therefor, having a series of notches or slots, a series of pivoted levers or keys corresponding to the different amounts to be registered and provided with extending parts which project through the slots or notches in the locking-frame and furnished with projections adapted to catch upon and move the said frame upon the movement of any of the levers, a pivoted frame adapted to be oscillated positively by the movement of the locking-frame to lock all of the operating levers or keys against movement except the one moved to operate the locking-frame, registering devices operated by the levers or keys to register the amount of the purchases, and a pivoted locking-frame actuated by the movement of the drawer to positively lock all the levers or keys against movement when the drawer is open.

In testimony of which invention I have hereunto set my hand.

HOMER A. HERR.

Witnesses:

R. M. HUNTER,

ERNEST HOWARD HUNTER.