

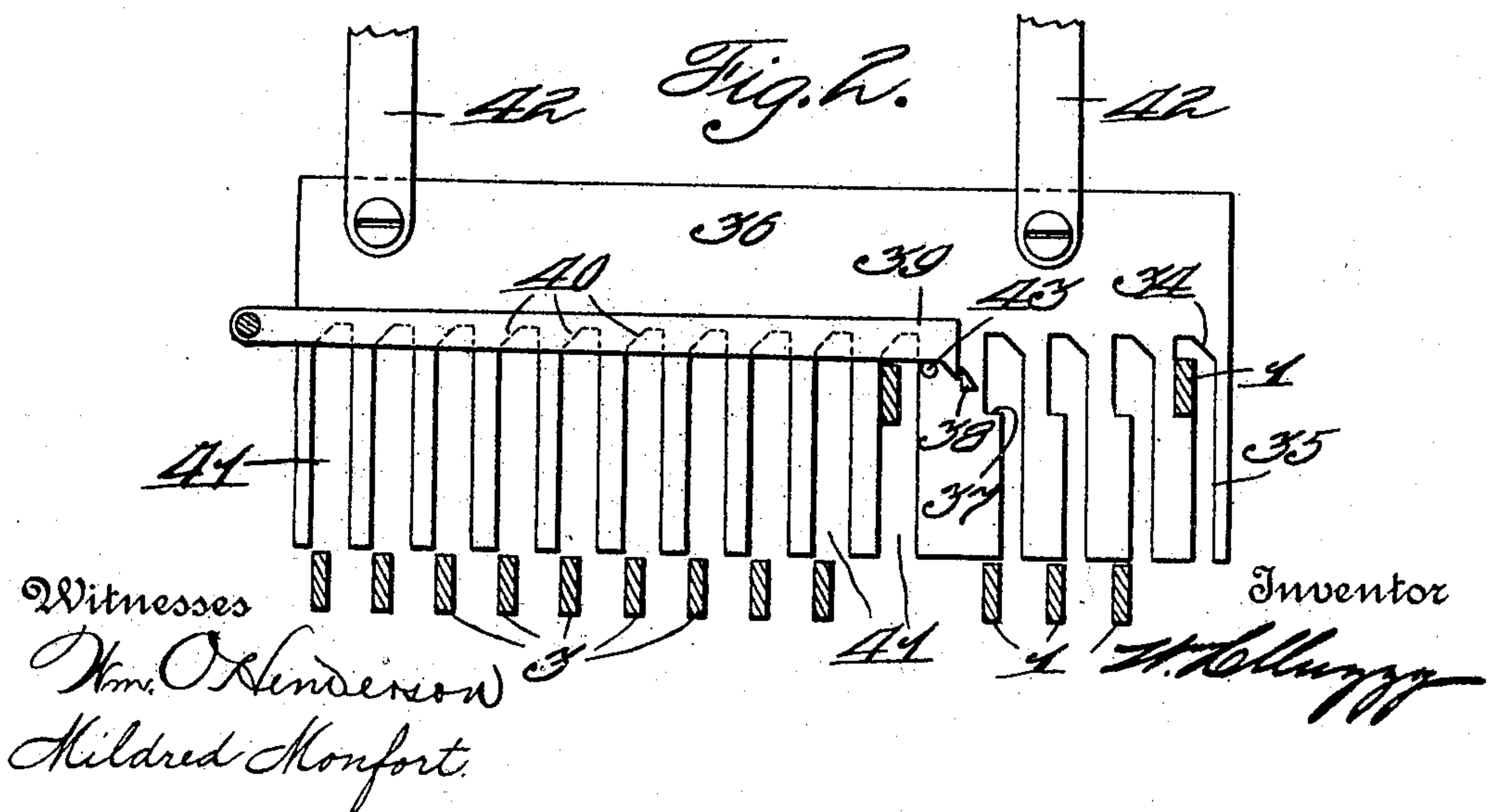
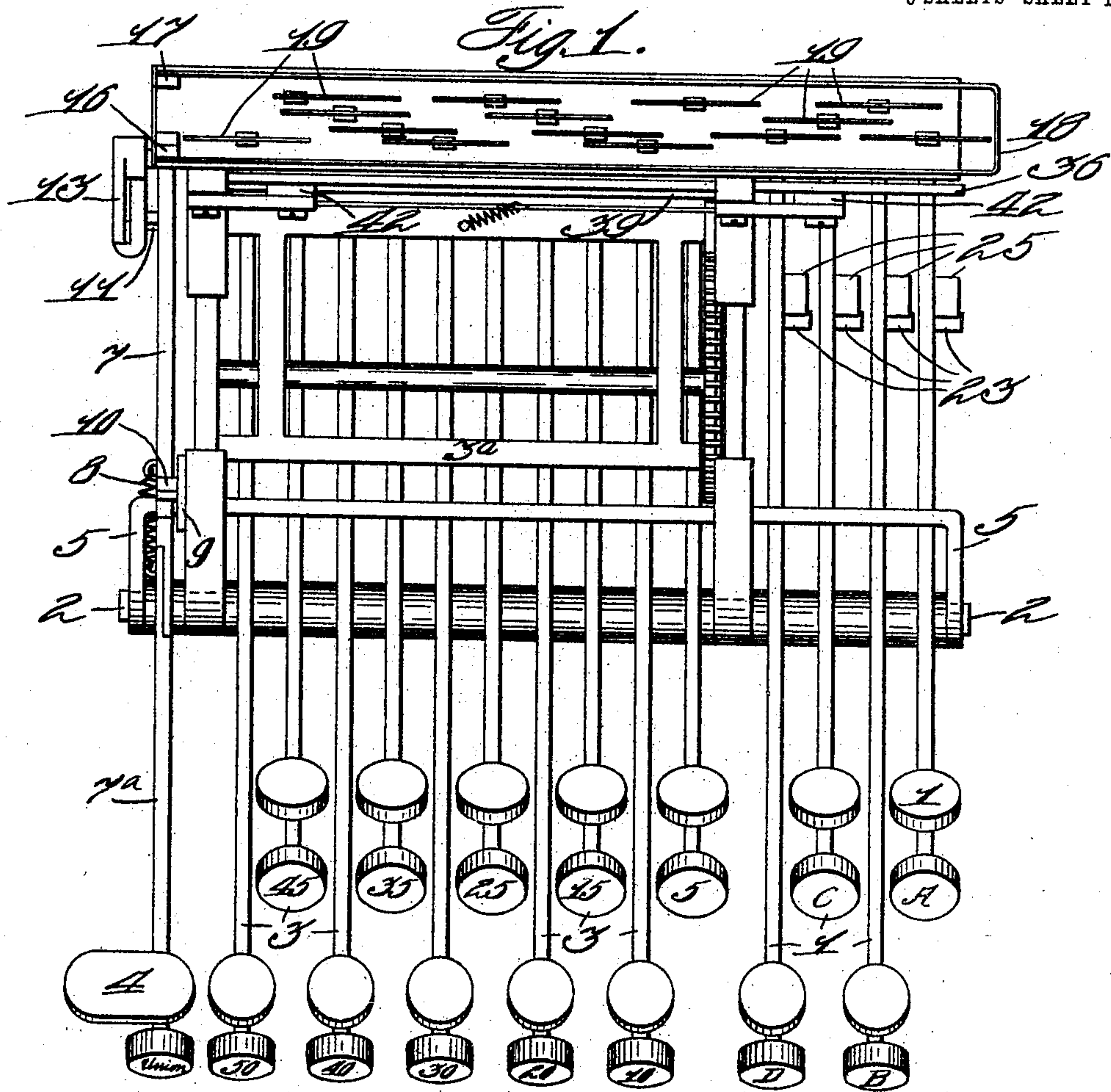
No. 796,240.

PATENTED AUG. 1, 1905.

W. H. MUZZY.
CASH REGISTER.

APPLICATION FILED SEPT. 29, 1904.

3 SHEETS--SHEET 1.



Witnesses

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Mildred Monfort.

Inventor

W. H. Muzzy

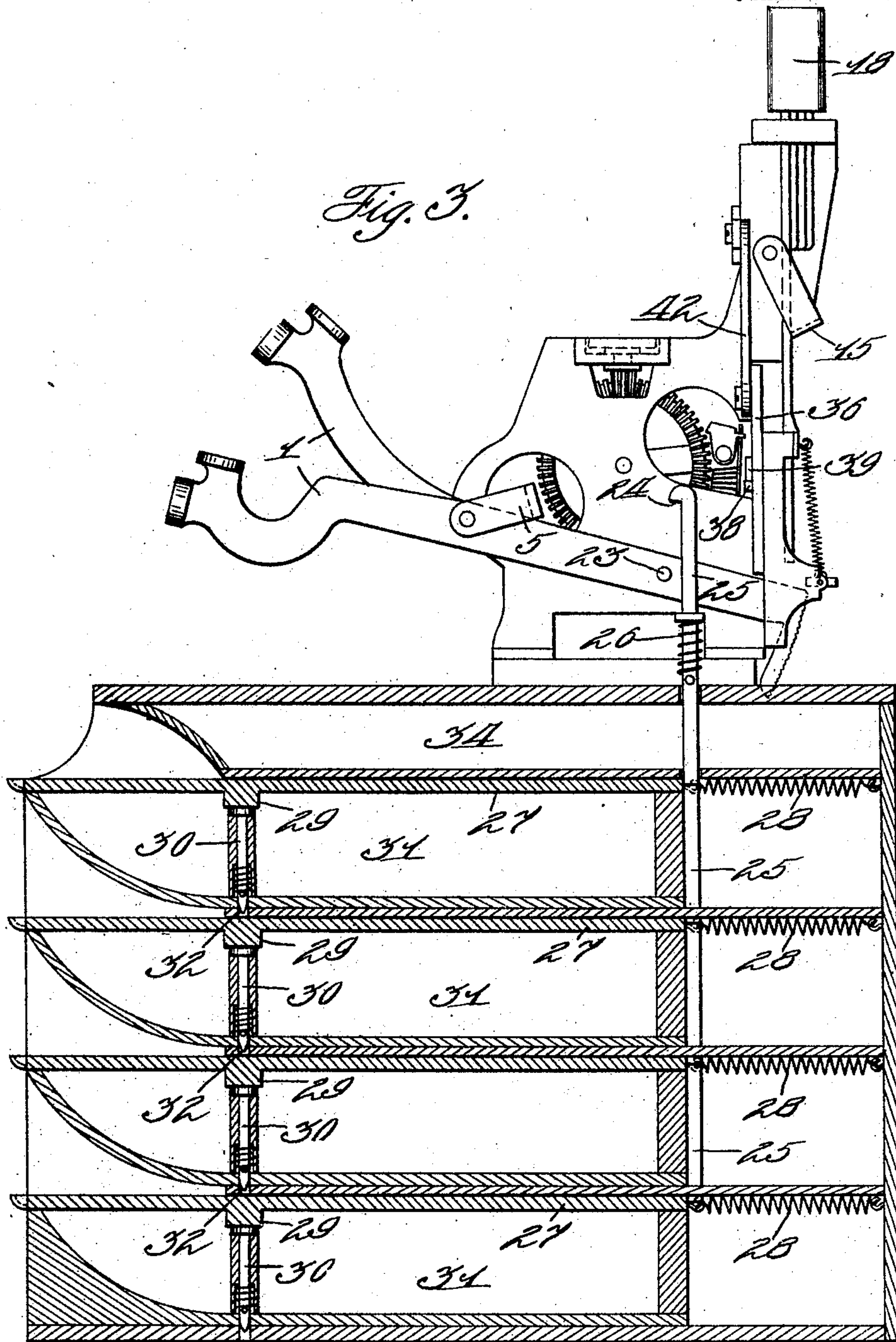
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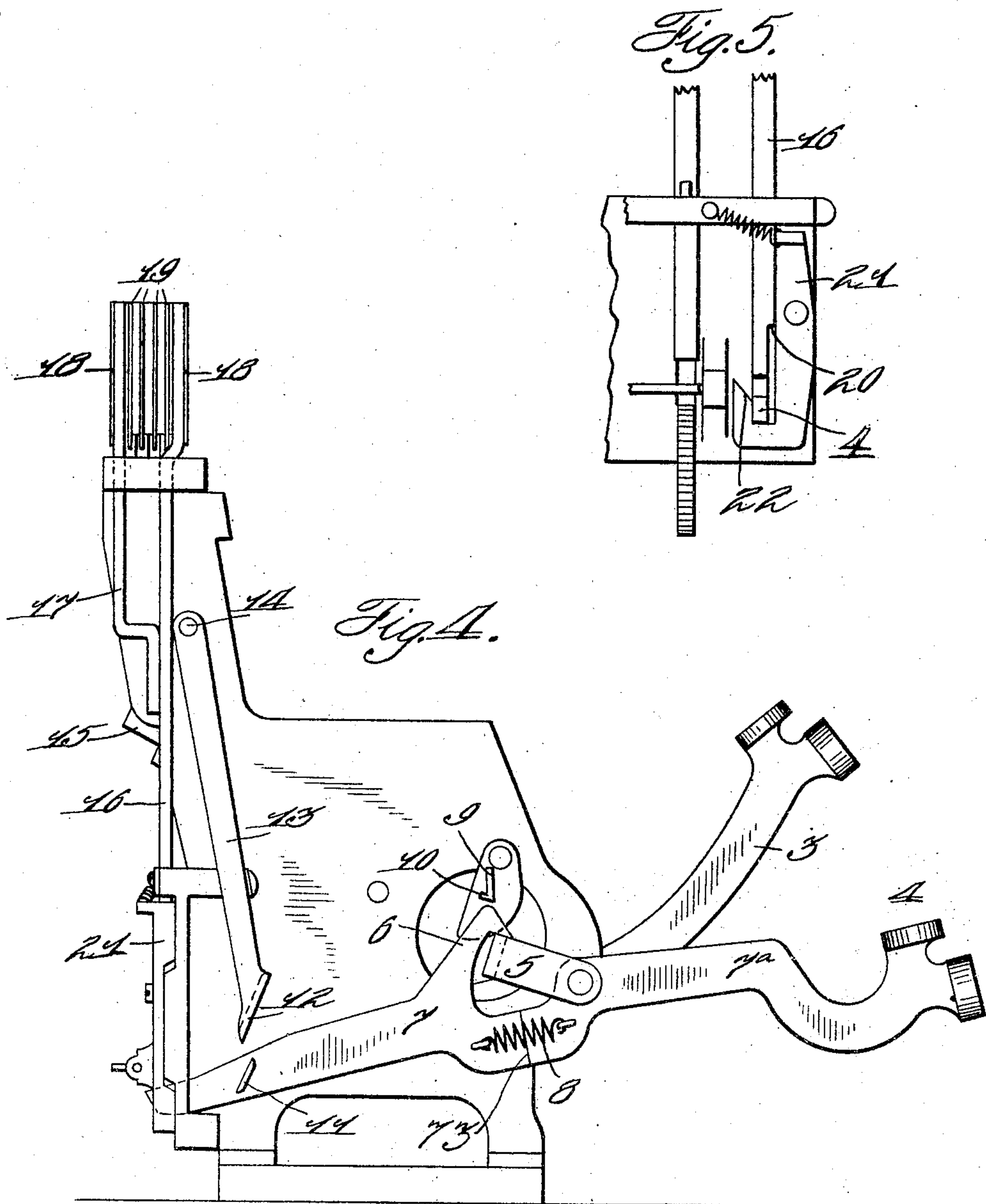
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3 SHEETS--SHEET 3.



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UNITED STATES PATENT OFFICE.

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CASH-REGISTER.

No. 796,240.

Specification of Letters Patent.

Patented Aug. 1, 1905.

Application filed September 29, 1904. Serial No. 226,500.

To all whom it may concern:

Be it known that I, WILLIAM H. MUZZY, a citizen of the United States, residing at Dayton, in the county of Montgomery and State of Ohio, have invented certain new and useful Improvements in Cash-Registers, of which I declare the following to be a full, clear, and exact description.

This invention relates to improvements in cash-registers, and has more particular relation to improvements in registers of the so-called "multiple-drawer" or "multiple-receptacle" type, in which a series of independent safes or receptacles are provided for the different clerks.

The principal object of the invention is to provide a series of improved independent cash-safes having movable covers or lids, whereby access may be had to the receptacles simply by the movement of the lid.

A further object of the invention is to apply multiple safes or receptacles to the type of machine shown in the present drawings and illustrated in the patent to Luke Cooney, Jr., No. 575,331, dated January 19, 1897.

With these and incidental objects in view the invention consists in certain novel features of construction and combinations of parts, the essential elements of which are set forth in appended claims and a preferred form of embodiment of which is hereinafter specifically described with reference to the drawings which accompany and form part of this specification.

Of said drawings, Figure 1 represents a top plan view of a machine of the class mentioned with my improvements applied thereto. Fig. 2 represents a front elevation of the latching-plate for the clerks' keys. Fig. 3 represents an end elevation of the machine embodying my invention with the cabinet removed and the cash-receptacles shown in section. Fig. 4 represents an end elevation of the opposite side of the machine from that shown in Fig. 3 with the cash-receptacles omitted; and Fig. 5 represents a detail rear elevation of the latching-pawl for the flash-arm.

As a number of the parts shown in the present drawings are fully illustrated and described in the aforesaid patent, reference will be made to the same for such detail descriptions as are not fully given. Described in general terms, however, the machine, which is of the key-operated type, is provided with

a series of amount key-levers 3, a series of clerks' key-levers 1, and a transverse shaft 2, upon which these levers are pivotally mounted. The amount key-levers cooperate with a registering-frame 3^a, substantially as shown in the aforesaid patent. The clerks' key-levers, however, are arranged, as shown in Fig. 1, to the right of the amount key-levers and free of the frame 3^a. All of the key-levers, however, actuate a pivoted yoke or bar 5, which is mounted upon the shaft 2 and projects laterally over the key-levers to the rear of the shaft, as shown in Fig. 1. What is known as a "broken key" 4 is arranged at the left-hand end of the shaft 2. This key is formed in two parts 7 and 7^a, each of which is journaled upon the shaft 2, said parts being held together with their operating-shoulders 7^b contacting by a coil-spring 8, which connects said parts. As plainly shown in Fig. 4, the part 7 of the key 4 is provided with a hook-arm 6, which projects over the frame 5 and is normally locked by a flange 10, formed on a pivoted pawl 9; which is so mounted that the flange normally projects above the hook 6. By this construction the union-key is normally locked and is only unlocked when the yoke 5 is operated and elevated to force the pawl 9 rearward and move the flange 10 out of the path of the hook 6. The rear part 7 of said key 4 carries a flange 11, which is arranged to contact with an incline flange 12, formed upon an arm 13, which is made fast to a rock-shaft 14. When the union-key is operated, the flange 11 comes in contact with flange 12, forcing the same rearward, thereby rocking the shaft 14. This shaft carries indicator-supporting yokes 15, which when moved allow the indicators which were previously exposed to drop out of view. When the forward end of the key 4 has reached the end of its downward movement, the flange 11 has cleared the flange 12, which allows the lever 13 to return to normal position by means of a suitable spring. The forward movement of the arm 13 also returns the supporting-yokes 15 to normal position, thereby latching the indicator of the operated key in indicating position. The extreme rearward end of the union-key 4 when moving upwardly contacts with a slide 16, fast to which is a shorter arm 17, the upper ends of said arms supporting screen plates or flashes 18, which hide the indicators from view until the union-key has nearly re-

turned to its normal position. This timing of the flash is accomplished in the following manner: The slide 16 is formed with a notch 20, which as the slide moves upward comes into position to be engaged by a spring-drawn pawl 21, mounted upon the rear frame of the machine. As the upward end of pawl 21 moves into engagement with the notch 20 a beveled face 22, formed on the lower end of said pawl, will move to a position to be engaged by the key 4 upon its return, thereby moving the upward end of the pawl 21 out of engagement of the notch 20, formed on the slide 16, and allowing the screen-plates 18 to return to normal position to expose the indication. The operation of the yoke 5, it will be seen, operates the part 7 of the key 4, and thus elevates and latches the flash when any one of the keys is operated.

Each of the clerks' keys 1 is provided with a pin 23, which as the rear end of said key rises engages with a nose 24 of plunger-rod 25 and raises same against the tension of a spring 26, which surrounds said rod. This movement of the rod 25 releases a lid 27 of its respective cash-receptacle, and as soon as said lid is released a spring 28 draws it rearwardly. This movement of said lid carries a projection 29, formed on the under side of same, from over a spring-plunger 30, mounted within the partition of the cash-receptacle. This plunger 30 is beveled at its lower end and extends through the bottom of the cash-receptacle 31 and into a recess 32, formed on a partition 33 of the cabinet 34.

It will be seen from the above description that access to any of the cash-receptacles is prevented until its lid is first released. The rearward movement of the lid allows the operator to gain access to only the front or coin compartments of said receptacle. If he desires access to the rear bill-compartments, it is necessary for him to pull the cash-receptacle out, which movement will force the plunger 30 upwardly against the tension of its spring. After a cash-drawer has once been withdrawn it must be pushed all the way in again before the lid 27 is drawn out to its normal position and latched, as otherwise the drawer could not be afterward closed.

By reference to Fig. 2 it will be seen that when any one of the clerks' keys is operated its rear end will strike an incline surface 34, formed at the upper end of slot 35, cut in a latch-plate 36. The top of each of these slots is of double width, so that when a clerk's key 1 strikes the beveled portion 34 it will force the same to the right and bring a locking-shoulder 37 under the operated key 1, and thereby latch it in its operated position. This movement of the plate 36 causes a beveled lug 38, formed thereon, to force a latching-bar 39 upward until said lug has passed clear of said bar. This bar will then drop behind said lug and latch the plate 36 in its adjusted

position. It will be seen that when a key is latched in this position the lid of its respective cash-drawer has been released; but as the flash is still being held in a position to hide the indicators the customer will know that a complete operation of the machine has not taken place.

The clerks' keys are released by an operation of an amount-key in the following manner: As an amount-key completes its downward movements it will engage the locking-bar 39 and raise the same free of lug 38. The key will engage a beveled face 40, formed at the upper end of its slot 41 of the cam-plate 36, and force the latter back to normal position. This movement will carry the shoulder 37 out of engagement with the key 1, that has been elevated, and allow said key, with the amount-key, to return to normal position. This plate 36 is pivoted to the main frame by two links 42, and as there is only a slight movement given to said plate this swinging movement caused by the pivoting of this plate is not perceptible. Latching-bar 39 is limited in its downward movement by a pin 43, carried by plate 36.

From the above description it will be seen that each of the clerks is provided with an independent cash-receptacle and an independent receptacle - controlling key and that in order to release or permit access to any particular receptacle one of the clerks' keys must be so depressed that it becomes latched in its depressed position and holds the flash elevated, so that no amount can be disclosed until one of the amount-keys is operated to release the clerk's key and permit it and the flash to return to their normal positions. If any one of the clerks' keys has been operated, no other clerk's key can be depressed until the first key is returned to its normal position, as the plate 36 moves over all of the unoperated clerks' keys. All of the keys, both amount and clerks' keys, are provided with indicating-tablets and full-stroke devices, substantially as shown and described in the aforesaid patent. The flash or guard 18 is preferably provided with suitable lettering or words, such as "Sale not registered," "No sale," or the like. With this mode of operation it is not necessary to employ a union-key at all unless the amount involves the operation of two keys in the amount-bank. If the fifty-cent key is to be operated with any of the other keys in the amount-bank, it will be necessary to hold down the union-key in the regular manner described in the aforesaid patent to prevent the second key operated returning the first to its normal position by rocking the detent 15. It will also be observed that the forward end of each cash-drawer 31 is undercut, so as not to interfere with entrance into the cash-drawer immediately below it when the lid of a drawer is retracted. If the bottom of each drawer were extended to the front of the machine,

access to the coin-compartments of the different drawers would be impossible, even if the lids were open.

While the form of mechanism here shown and described is admirably adapted to fulfil the objects primarily stated, it is to be understood that it is not desired to confine the invention to the one form of embodiment here disclosed, for it is susceptible of embodiment in various forms, all coming within the scope of the claims which follow.

Having thus described the invention, what is claimed as new, and desired to be secured by Letters Patent, is—

1. In a cash-register, the combination with an operating mechanism, of selective devices, a series of independent cash-receptacles having undercut forward portions and covers for said receptacles.

2. In a cash-register, the combination with an operating mechanism, of selective devices, a series of cash-receptacles located one above the other and each having a forward undercut portion and sliding covers for said receptacles.

3. In a cash-register, the combination with an operating mechanism, of selective devices, a series of independent cash-drawers located one above the other and having undercut forward portions and sliding covers for said cash-drawers.

4. In a cash-register, the combination with an operating mechanism, of a series of amount-keys, a series of clerks' keys, indicators for said keys, a series of independent cash-receptacles, controlling means intermediate the clerks' keys and cash-receptacles, means for latching the clerks' keys in their operated positions, and means controlled by the amount-keys for releasing the clerks' keys.

5. In a cash-register, the combination with a series of clerks' keys, indicators for the same, a series of amount-keys and indicators, means for latching the clerks' keys in their depressed positions, and means operated by the amount-keys for releasing the clerks' keys.

6. In a cash-register, the combination with a series of clerks' keys and indicators, of a series of amount-keys and indicators, a flash for the indicators, means for connecting said keys and flash whereby the latter conceals the indicators when any key is out of its normal position, means for latching the clerks' keys out of their normal positions, and means for operating the latch from the amount-keys.

7. In a cash-register, the combination with a series of clerks' keys and indicators, of a series of amount-keys, means for latching the clerks' keys in their depressed positions with

provisions for locking the unoperated clerks' keys, and means operated by the amount-keys for releasing the clerks' keys.

8. In a cash-register, the combination with a series of clerks' keys and indicators, of a series of amount-keys and indicators, a flash for hiding the indicators when any clerks' key is out of normal position, means for latching a clerks' key out of normal position, means for operating the latch from the amount-keys, and a plurality of independent cash-receptacles controlled by the clerks' keys whereby after the cash-receptacle is opened it is necessary to operate an amount-key before the indication is exposed.

9. In a cash-register, the combination with an operating mechanism, of selective devices, a series of cash-drawers located one above the other and formed with undercut portions at their forward ends, sliding covers for the respective cash-drawers controlled by the selective devices, and locking means for the drawers controlled by the sliding covers.

10. In a cash-register, the combination with an operating mechanism, of selective devices, a series of cash-drawers divided into coin and bill compartments and having undercut portions at their front ends, and sliding covers arranged to expose the coin-compartments only and controlled by said selective devices.

11. In a cash-register, the combination with an operating mechanism, of clerks' keys, a series of cash-drawers having undercut forward portions, sliding covers for said drawers, springs for operating said covers and latches for the covers controlled by the clerks' keys.

12. In a cash-register, the combination with the clerks' keys and indicators, of amount-keys and indicators, a flash for the indicators controlled by any of said keys, means for latching the clerks' keys in their elevated positions, means for tripping the latch from the amount-keys, a series of independent cash-drawers and covers for said drawers controlled by the clerks' keys.

13. In a cash-register, the combination with clerks' selective devices, a series of cash-receptacles controlled thereby, amount selective devices, means for latching the clerks' selective devices in operative position and means controlled by the amount selective devices for releasing the clerks' selective devices.

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

WILLIAM H. MUZZY.

Witnesses:

WM. O. HENDERSON,
MILDRED MONFORT.