March 17, 1942. F. L. WEST 2,276,442

REGISTER CONTROL LOCK

Filed May 3, 1941 2 Sheets-Sheet 1

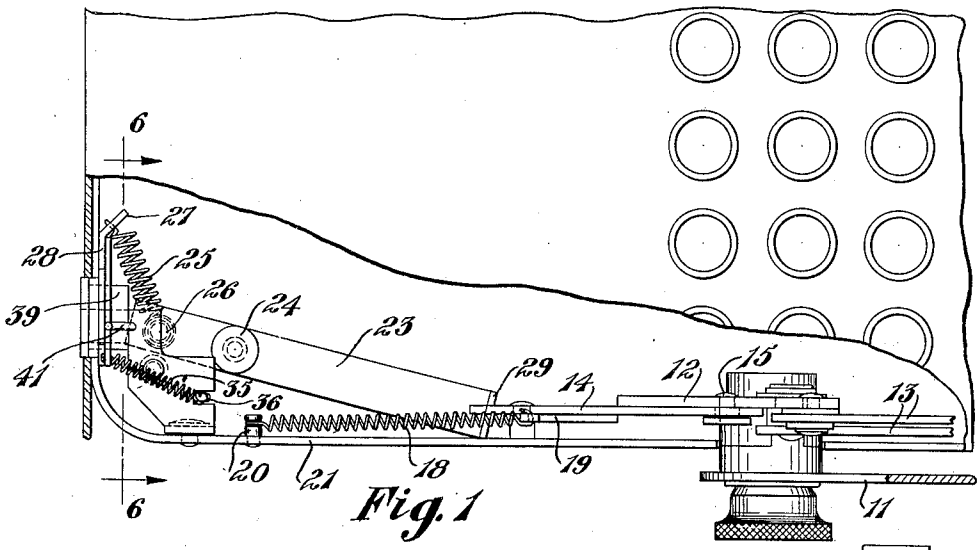


Fig. 1

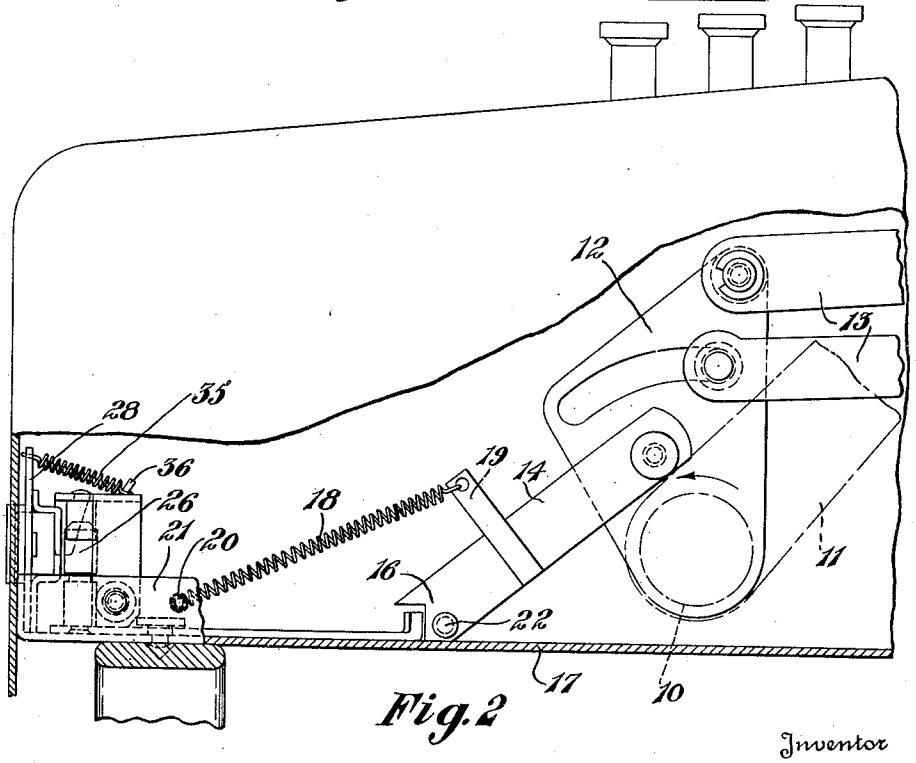


Fig. 2

Inventor

Fletcher L. West

By Treasc and Bishop

Attorneys

March 17, 1942. F. L. WEST 2,276,442

REGISTER CONTROL LOCK

Filed May 3, 1941 2 Sheets-Sheet 2

Fig 8

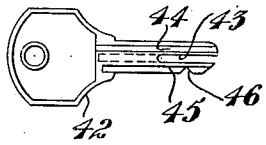


Fig. 3

Fig. 6

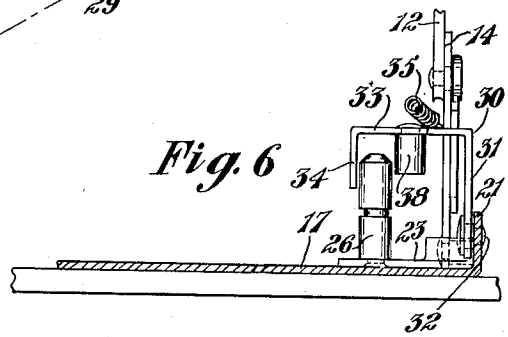


Fig. 4

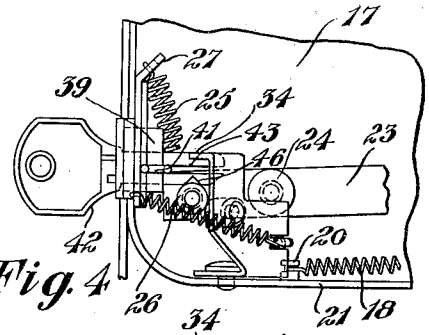
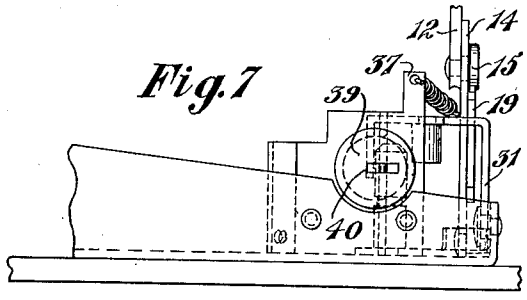


Fig. 7



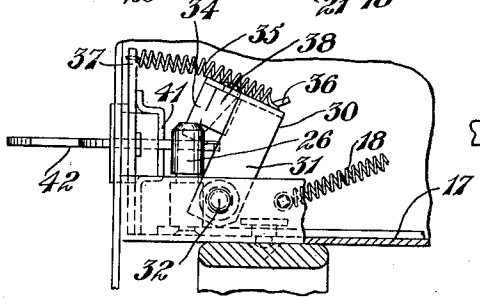


Fig. 5

Inventor

Fletcher L. West

By Treasc and Bishop

Attorneys

Patented Mar. 17, 1942 2,276,442

UNITED STATES PATENT OFFICE

2,276,442

REGISTER CONTROL LOCK

Fletcher L. West, Alliance, Ohio, assignor to The McCaskey Register Company, Alliance, Ohio, a corporation of Ohio

Application May 3, 1941, Serial No. 391,798

11 Claims. (Cl. 70—136)

The invention relates to a control lock for cash registers and similar machines, and more particularly to a locking mechanism for preventing the operation of the machine except when the proper key is inserted to render the locking mechanism inoperative.

The object of the invention is to provide a locking mechanism operatively associated with the main shaft of the machine and normally located in position to prevent movement of said main shaft.

Another object is the provision of such mechanism with means operated by the insertion of a key for rendering said lock inoperative and permitting normal operation of the main shaft of the machine.

A further object is the provision of means requiring the use of a slotted, or split key, for rendering the locking means inoperative, in order to prevent the lock from being picked by a single tool.

A still further object is to provide a control lock of the character referred to comprising a lock lever normally located in position to prevent operation of the main shaft of the machine, and a latch normally located in position to prevent movement of the lock lever.

Another object is to provide such a lock with a key so constructed that insertion of the key will first render the latch inoperative and then render the lock lever inoperative permitting normal operation of the main shaft of the machine.

A further object of the invention is to provide such a control lock in which a stop lever is operatively connected to the main shaft of the machine and a lock lever is normally held in the path of the stop lever to prevent movement of the main shaft, a pivoted latch member being positioned to normally prevent movement of the lock lever, and a key being provided for insertion into a lock plug for first engaging the latch and moving it to inoperative position and then engaging the lock lever and moving it out of engagement with the stop lever permitting normal operation of the main shaft of the machine during the time that the key remains inserted in the lock plug.

A still further object is to provide spring means for returning the lock lever and the latch to locked position upon withdrawal of the key.

Another object is to provide means for retaining the key in the key plug, holding the parts in unlocked or inoperative condition until the key is manually withdrawn.

The above objects together with other which will be apparent from the drawings and following description or which may be later referred to may be attained by constructing the improved register control lock in the manner illustrated in the accompanying drawings in which

Figure 1 is a fragmentary plan sectional view of a portion of a cash register showing the improved register control lock in the normal position so as to prevent operation of the main shaft of the machine;

Fig. 2, a side elevation partly in section showing the control lock in the position shown in Figure 1;

Fig. 3, a detached perspective view of the improved control lock showing the association of the same with the main shaft of the machine;

Fig. 4, a fragmentary plan sectional view of the control lock showing the key inserted in the lock plug rendering the latch and lock lever inoperative so as to permit operation of the machine;

Fig. 5, a sectional elevation of the lock in the position shown in Fig. 4;

Fig. 6, a fragmentary sectional view taken as on the line 6—6, Figure 1 showing the latch and lock lever in normal or locked position;

Fig. 7, a front elevation of the improved lock; and

Fig. 8, an elevation of the split key for operating the lock.

Similar numerals refer to similar parts throughout the several views.

The main shaft of a cash register of conventional design is indicated at 10 and may be motor operated as is customary in many cash registers, or may be operated by the handle 11 the shaft being arranged to be rocked in the direction of the arrow shown in Fig. 3 in order to operate the machine.

A rocker arm 12 is fixed upon the main shaft 10 and may be connected, as by linkage 13, with the various mechanism of the cash register.

As all of these parts may be of any usual construction and since they in themselves form no part of the present invention it is not thought necessary to further illustrate or describe the same.

The improved control lock to which the invention pertains includes a stop lever 14 pivoted at one end as at 15 upon the rocker arm 12, the free end 16 of this stop lever being held in slidable contact with the bottom wall 17 of the machine by means of a spring 18 one end of which may be connected to the lug 19 extending upwardly from an intermediate portion of the stop

lever 14, the other end of the spring being connected to a stud 29 mounted in the adjacent side wall 21 of the machine.

A stud 22 may be fixed upon the free end portion of the stop lever 14 for slidable contact against the side wall 21 so as to hold the free end portion of the stop lever spaced from the side wall.

The lock lever 23 is fulcrumed intermediate its ends upon the bottom wall 17 of the register as indicated at 24 and a spring 25 is connected to a post 26 upon the forward end of the lock lever, and to a flange or ear 27 upon the lock bracket 28 for the purpose of holding the lock lever in the position best shown in Figs. 1 and 3 of the drawings, with the upturned rear end 29 of the lock lever engaged in the notched forward end 16 of the stop lever so as to prevent rotation of the main shaft 10 forwardly or in the direction of the arrow shown in Figs. 2 and 3.

The lock lever latch indicated generally at 30 is of angular form, the leg 31 thereof being pivotally connected to the side wall 21 of the register as shown at 32 and the top portion 33 of the latch extending over the lock pin or post 26 of the lock lever and terminating in the depending finger 34 located upon the inner side of said lock pin.

A coil spring 35 has one end connected to a tongue 36 formed upon the top of the lock lever latch, the other end of the spring being connected to an ear 37 upon the top of the lock bracket 28.

The lock lever latch pin 38 is connected to the under side of the top portion 33 of the latch and depends therefrom in position to be located adjacent to the outer side of the lock pin 26.

Thus, in the normal position of the parts the spring 35 holds the lock lever latch in the upright or forward position with the pin 38 thereof located in the path of the lock pin 26 so as to prevent movement of the lock lever 23 in a direction to prevent the upturned rear end 29 thereof from being moved out of the path of the stop lever 14.

The lock bracket 28 is connected to the front wall of the register and carries the lock plug 39 provided with a horizontal key slot 40.

A wire key guide 41 is connected to the inner side of the lock plug and located transversely across the intermediate portion of the slot 40.

This is for the purpose of preventing a nail or a wire or tool from being inserted through the keyhole 40 and engaging both the depending finger 34 of the lock lever latch and the lock pin 26.

As it is obvious that the finger 34 of the latch must be engaged and the latch tilted back so as to move the latch pin 38 out of the path of the lock pin 26, before the lock lever 23 may be moved out of the path of the stop lever 14, it will be seen that the guide 41 will prevent the lock from being operated by a nail, wire, or the like.

The key 42 for operating the improved control lock is longitudinally slotted as at 43 to receive the guide 41 when the key is inserted into the slot 40.

With the parts in the normal position as shown in Figs. 1, 2, and 3, the main shaft 10 of the register cannot be rotated so that an unauthorized person cannot operate the register.

When the operator desires to use the register he inserts the key 42 into the slot 40. As the key is pushed inward the portion 44 thereof on the left side of the longitudinal slot 43 will first contact the depending finger 34 of the latch tilting the latch backward upon its pivotal point until the latch pin 38 is moved out of the path of the lock pin 26 at which time the portion 45 on the right side of the slot 43 of the key will contact the lock pin 26 pushing the same outward toward the side wall 21 of the register and swinging the lock lever 23 upon its fulcrum 24 so that the upturned rear end 29 thereof is moved out of the path of the stop lever 14 permitting the main shaft 10 to be operated.

As the key reaches the inward limit of its movement the notch 46 in the side thereof will engage the lock pin 26 and the spring 25 upon the lock lever will hold the lock pin frictionally in said notch to prevent accidental withdrawal of the key.

It will also be seen that as the key moves to its inward position it will ride under the depending finger 34 of the latch, as shown in Figs. 4 and 5, the spring 35 holding the same frictionally engaged with the top of the key, providing further means for preventing accidental withdrawal of the key.

It will thus be seen that when the key has been inserted to unlock the control lock it will be held in place against accidental withdrawal holding the machine unlocked for use until such time when the key is manually withdrawn.

I claim:

1. In a cash register provided with a rotatable main shaft, stop means upon the main shaft, a lock lever fulcrumed within the register, means normally holding the lock lever in position to locate a portion thereof in the path of the stop means so as to prevent rotation of the main shaft, a lock lever latch for normally preventing movement of the lock lever, a lock plug in the register having a key receiving slot, so positioned that a key inserted through said slot will first release the latch and then move the lock lever out of the path of said stop means.

2. In a cash register provided with a rotatable main shaft, stop means upon the main shaft, a lock lever fulcrumed within the register, means normally holding the lock lever in position to locate a portion thereof in the path of the stop means so as to prevent rotation of the main shaft, a lock pin upon the lock lever, a lock lever latch normally located in the path of the lock pin for preventing movement of the lock lever, a lock plug in the register having a key receiving slot, so positioned that a key inserted through said slot will first move the latch out of the path of the lock pin and then move the lock lever out of the path of said means.

3. In a cash register provided with a rotatable main shaft, stop means upon the main shaft, a lock lever fulcrumed within the register, means normally holding the lock lever in position to locate a portion thereof in the path of the stop means so as to prevent rotation of the main shaft, a lock lever latch mounted within the register, means normally holding the latch in position to prevent movement of the lock lever, a lock plug in the register having a key receiving slot, so positioned that a key inserted through said slot will first release the latch and then move the lock lever out of the path of said stop means, and means upon the latch for engaging and holding a key in the lock plug.

4. In a cash register provided with a rotatable main shaft, stop means upon the main shaft, a lock lever fulcrumed within the register, means normally holding the lock lever in position to

locate a portion thereof in the path of the stop means so as to prevent rotation of the main shaft, a lock pin upon the lock lever, a lock lever latch pivotally mounted in the register, a latch pin upon the latch, means normally holding the latch in position to locate the latch pin in the path of the lock pin for preventing movement of the lock lever, a lock plug in the register having a key receiving slot, so positioned that a key inserted through said slot will first tilt the latch to move the latch pin out of the path of the lock pin and then engage the lock pin and move the lock lever out of the path of the stop means, and means upon the latch for engaging and holding a key in the lock plug.

5. In a cash register provided with a rotatable main shaft, stop means upon the main shaft, a lock lever fulcrumed within the register, means normally holding the lock lever in position to locate a portion thereof in the path of the stop means so as to prevent rotation of the main shaft, a lock lever latch mounted in the register for normally preventing movement of the lock lever, a lock plug in the register having a key receiving slot therein, and means dividing said slot into two parts, to receive a longitudinally slotted key for insertion into both parts of said slot, one side of the slotted key first releasing the latch and the other side of the key then moving the lock lever out of the path of the stop means.

6. In a cash register provided with a rotatable main shaft, stop means upon the main shaft, a lock lever fulcrumed within the register, means normally holding the lock lever in position to locate a portion thereof in the path of the stop means so as to prevent rotation of the main shaft, a lock lever latch mounted in the register for normally preventing movement of the lock lever, a lock plug in the register having a key receiving slot therein, means dividing said slot into two parts, to receive a longitudinally slotted key for insertion into both parts of said slot, one side of the slotted key first releasing the latch and the other side of the key then moving the lock lever out of the path of the stop means, and means upon the latch for engaging and holding the key in the lock plug.

7. In a cash register provided with a rotatable main shaft and a rocker arm upon the main shaft, a stop lever pivoted at one end upon the rocker arm, a lock lever fulcrumed intermediate its ends in the register and having an upturned end, a lock pin on the other end of the lock lever, a spring normally holding the upturned end of the lock lever in the path of the stop lever to prevent rotation of the main shaft, a lock lever latch pivotally mounted in the register, a latch pin upon the latch, a spring normally holding the latch in position to locate the latch pin in the path of the lock pin to prevent movement of the lock lever, a finger upon the latch, a lock plug mounted in the register and having a key receiving slot therein, so positioned that a key may be inserted into said slot for first contacting said finger and tilting the latch to move the latch pin out of the path of the lock pin and then contacting the lock pin and moving the upturned end of the lock lever out of the path of the stop lever, said finger frictionally engaging the side of the key and holding the key in the lock plug.

8. In a cash register enclosed within a casing and provided with a rotatable main shaft and a rocker arm upon the main shaft, a stop lever pivoted at one end upon the rocker arm, spring means holding the free end of the stop lever in sliding contact with the bottom of the casing, a lock lever fulcrumed intermediate its ends upon the bottom of the casing, a lock pin upon one end of the lock lever, a spring normally holding the other end of the lock lever in the path of the free end of the stop lever to prevent rotation of the main shaft, a lock lever latch pivotally mounted on the side of the casing, a latch pin upon the latch and a spring normally holding the latch in position to locate the latch pin in the path of the lock pin to prevent movement of the lock lever, so that when the latch is tilted the latch pin will move out of the path of the lock pin permitting the lock lever to be moved out of the path of the stop lever so that the main shaft may be rotated.

9. In a cash register enclosed within a casing and provided with a rotatable main shaft and a rocker arm upon the main shaft, a stop lever pivoted at one end upon the rocker arm, spring means holding the free end of the stop lever in sliding contact with the bottom of the casing, a lock lever fulcrumed intermediate its ends upon the bottom of the casing, a lock pin upon one end of the lock lever, a spring normally holding the other end of the lock lever in the path of the free end of the stop lever to prevent rotation of the main shaft, a lock lever latch pivotally mounted on the side of the casing, a latch pin upon the latch, a spring normally holding the latch in position to locate the latch pin in the path of the lock pin to prevent movement of the lock lever and a depending finger upon the latch, there being a key receiving slot in the casing so positioned that insertion of a key through said slot and against said depending finger will tilt the latch moving the latch pin out of the path of the lock pin and then engage the lock pin moving the lock lever out of the path of the stop lever.

10. In a cash register enclosed within a casing and provided with a rotatable main shaft and a rocker arm upon the main shaft, a stop lever pivoted at one end upon the rocker arm, spring means holding the free end of the stop lever in sliding contact with the bottom of the casing, a stud upon the rocker arm for holding the stop lever spaced from the adjacent side of the casing, a lock lever fulcrumed intermediate its ends upon the bottom of the casing, a lock pin upon one end of the lock lever, a spring normally holding the other end of the lock lever in the path of the free end of the stop lever to prevent rotation of the main shaft, a lock lever latch pivotally mounted on the side of the casing, a latch pin upon the latch and a spring normally holding the latch in position to locate the latch pin in the path of the lock pin to prevent movement of the lock lever, so that when the latch is tilted the latch pin will move out of the path of the lock pin permitting the lock lever to be moved out of the path of the stop lever so that the main shaft may be rotated.

11. In a cash register enclosed within a casing and provided with a rotatable main shaft and a rocker arm upon the main shaft, a stop lever pivoted at one end upon the rocker arm, said stop lever having a notched free end, spring means holding the free end of the stop lever in sliding contact with the bottom of the casing, a lock lever fulcrumed intermediate its ends and having an upturned end, a lock pin upon the other end of the lock lever, a spring normally

holding the upturned end of the lock lever in the path of the notched free end of the stop lever to prevent rotation of the main shaft, a lock lever latch pivotally mounted on the side of the casing, a latch pin upon the latch and a spring normally holding the latch in position to locate the latch pin in the path of the lock pin to prevent movement of the lock lever, so that when the latch is tilted the latch pin will move out of the path of the lock pin permitting the lock lever to be moved out of the path of the stop lever so that the main shaft may be rotated.

FLETCHER L. WEST.