No. 657,624.

Patented Sept. 11, 1900.

E. F. SPAULDING.

CASH REGISTER.

(Application filed Mar. 13, 1900.)

(No Model.)

Fig. 1.

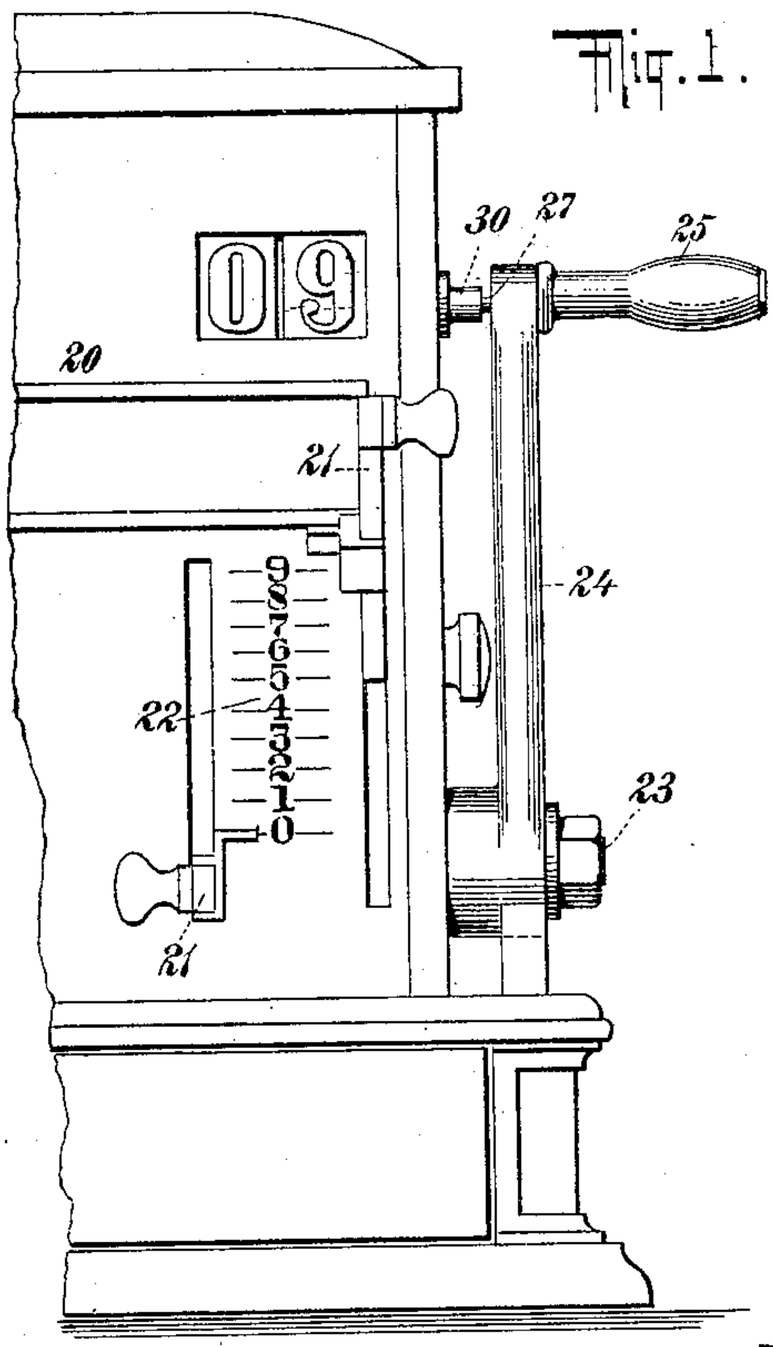

Fig. 10.

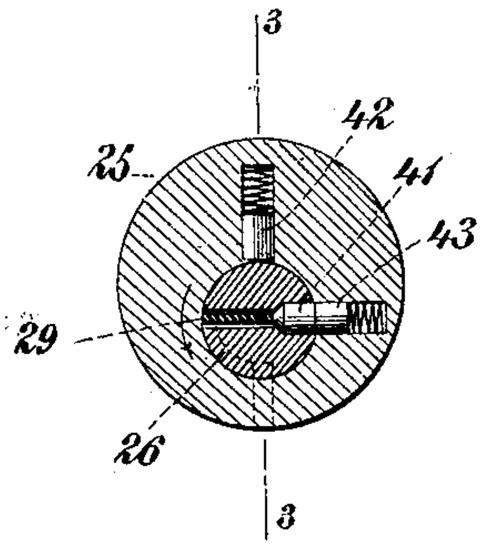

Fig. 11.

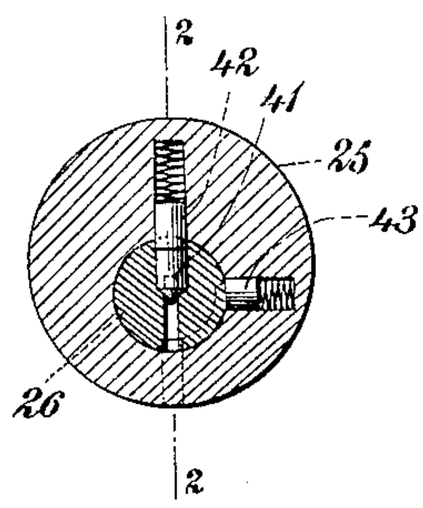

Fig. 2.

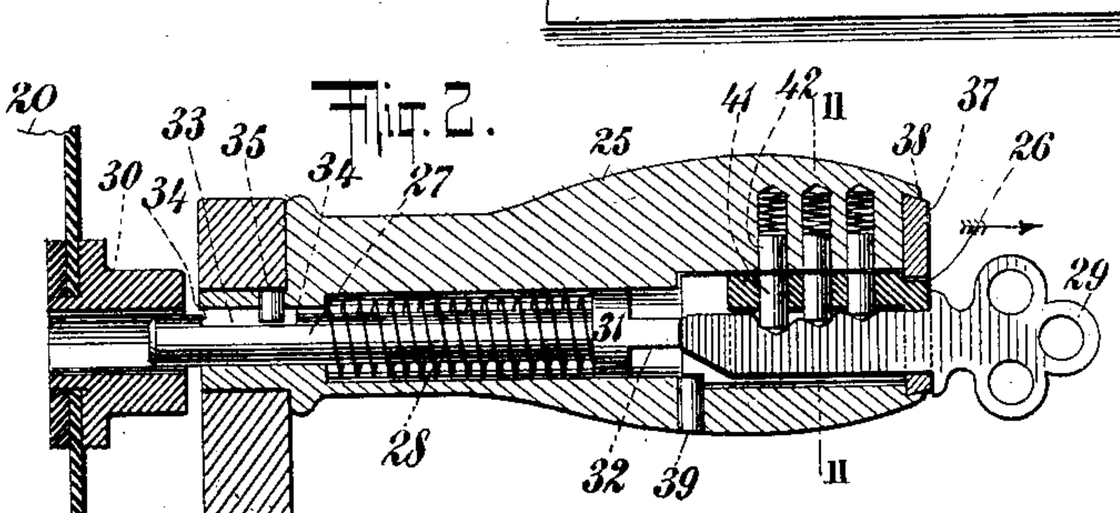

Fig. 4.

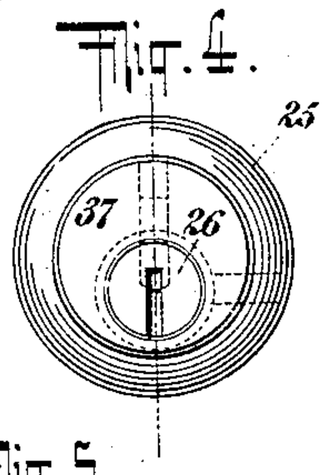

Fig. 3.

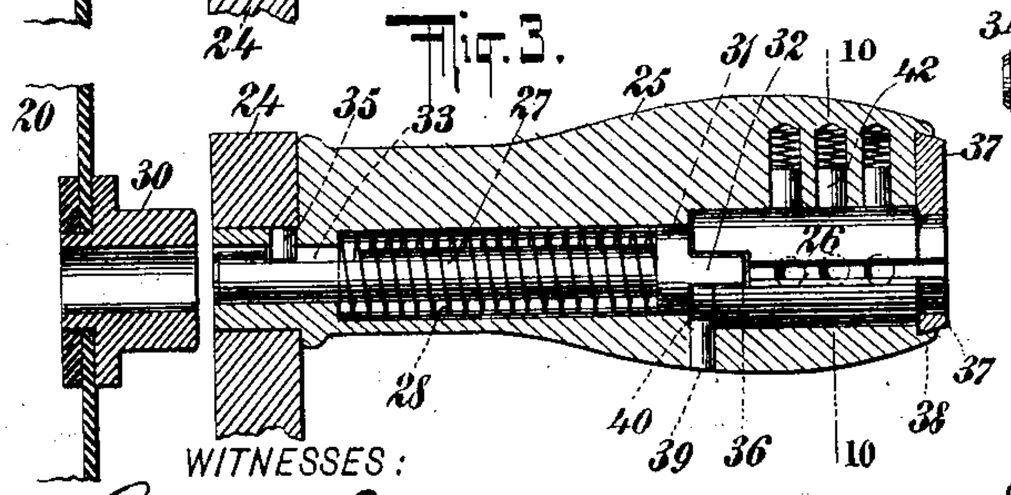

Fig. 5.

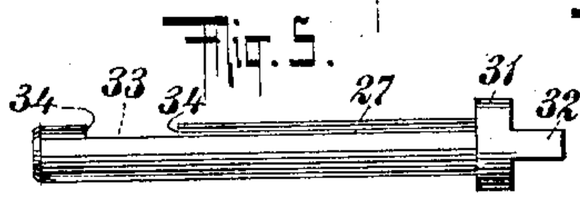

Fig. 6.

Fig. 7.

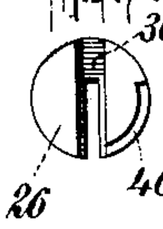

Fig. 8.

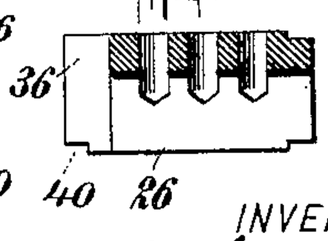

Fig. 9.

WITNESSES:

Gustave Dieterich.

John Kehlenbeck.

INVENTOR

Elijah F. Spaulding

BY

Chas. C. Gill

ATTORNEY

UNITED STATES PATENT OFFICE.

ELIJAH F. SPAULDING, OF BOUND BROOK, NEW JERSEY, ASSIGNOR TO THE IDEAL CASH REGISTER COMPANY, OF SAME PLACE.

CASH-REGISTER.

SPECIFICATION forming part of Letters Patent No. 657,624, dated September 11, 1900.

Application filed March 13, 1900. Serial No. 8,453. (No model.)

To all whom it may concern:

Be it known that I, ELIJAH F. SPAULDING, a citizen of the United States, and a resident of Bound Brook, in the county of Somerset and State of New Jersey, have invented certain new and useful Improvements in Cash-Registers, of which the following is a specification.

The invention relates to improvements in cash-registers, and more especially to an improvement in the cash-register described and claimed in the Letters Patent of the United States No. 640,825, granted January 9, 1900, to the Ideal Cash Register Company as my assignee.

In accordance with the invention shown and described in the aforesaid Letters Patent the operator moves the exposed actuating-levers along the line of numerals on the front face of the register-casing for the purpose of "setting" certain interior operative mechanism in accord with the values to be registered, and thereafter the operator by moving an exposed operating crank or lever connected with the main driving-shaft of the register mechanism sets in motion the registering mechanism to the extent desired, governed by the position given to the said actuating-levers. The exposed crank or lever is normally in a substantially-vertical position, and when actuated by the operator to effect registration is pulled downward to a substantially-horizontal position and then returned to its normal or substantially-vertical position. The exposed crank or lever is connected with the driving-shaft, which controls the operation of the interior mechanism of the register, and said crank or lever is of some considerable length in proportion to the height of the register in order that the operator may with ease utilize the same in setting in motion the interior mechanism of the register.

In the aforesaid patent, No. 640,825, no means were provided for locking the exposed operating crank or lever to prevent its operation at improper times, and the present invention relates to a structure embodying the register and the said exposed crank or lever, together with means for conveniently locking said handle against operation during such time as it may be desired that the register shall not be operated. In many places of business a number of cash-registers are employed, one cash-register being designated to each salesman, and under such condition should any one of the salesmen be temporarily absent he should for his own protection lock the exposed crank or lever, so that his register during his absence could not be operated by any of the other salesmen. The present invention pertains, therefore, to the combination of parts embodying the locking means whereby the exposed crank or lever may at all proper times be locked against operation; and said invention consists in the novel features and combinations hereinafter described, and more particularly pointed out in the claims.

Referring to the accompanying drawings, Figure 1 is a front elevation of a portion of the register constructed in accordance with and embodying the invention. Fig. 2 is a vertical section, on an enlarged scale, through a portion of same and illustrating the exposed operating-crank locked in its vertical position. Fig. 3 is a like view of same, showing the position of the parts when the said crank is unlocked. Fig. 4 is an enlarged end view of the upper portion or handle of the said exposed crank. Fig. 5 is a detached side elevation of the locking-bar contained within the handle at the upper end of the said exposed crank. Fig. 6 is an end view of same. Fig. 7 is an inner end view of the tumbler-cylinder within the handle at the upper end of the said exposed crank. Fig. 8 is a central vertical longitudinal section of same. Fig. 9 is an outer end view of same. Fig. 10 is a vertical transverse section through the said handle and locking devices on the dotted line 10 10 of Fig. 3, Fig. 10 showing the key inserted within the tumbler-cylinder and ready to be turned in the direction of the arrow, so as to cause said cylinder to make a one-quarter revolution; and Fig. 11 is a vertical transverse section of same on the dotted line 11 11 of Fig. 2, this figure illustrating the position of the parts after the tumbler-cylinder has been given its one-quarter revolution and the key removed.

In the drawings, 20 denotes the register-casing as a whole; 21, the setting-levers; 22, the line of the numerals along which said levers 21 are moved for the purpose of setting

into operative relation the interior mechanism of the register; 23, the main driving-shaft for the interior mechanism of the register, and 24 the exposed crank or lever by which the operator after having set the interior mechanism by means of the levers 21 will effect the proper registration. The crank or lever 24 has at its upper end the handle 25, and within this handle 25 is provided certain locking devices for locking the lever 24 in its vertical position.

Within the handle 25 is contained the tumbler-cylinder 26 and locking-bolt 27, the latter being encompassed by the coiled spring 28, which normally operates to retain said bolt 27 at its inward position. (Shown in Fig. 3.) The bolt 27 is adapted to be moved from its normal or inward position (shown in Fig. 3) to its outer or locking position (shown in Fig. 2) by means of the key 29, the latter being inserted directly through the key-slot of the cylinder 26 and its inner end engaging during the inward drive of the key the end of the bolt 27 and pushing the latter outward partly from the handle 25 toward the register-casing 20, the outer end of the bolt at such time entering the keeper 30, secured upon the side of the register-casing. The bolt 27 has at its inner end the head 31 and central projection 32, while at its outer end said bolt 27 is formed with the flattened portion 33 and shoulders 34. The shoulders 34 and the longitudinal space between said shoulders define the limit of movement which may be imparted to the bolt 27, since when said bolt is in position said shoulders 34 will lie on the opposite sides of a pin 35, which is rigid with the handle 25 and serves, in conjunction with the flat surface 33, to prevent the axial rotation of the bolt 27 and, in conjunction with the shoulders 34, to prevent the bolt 27 from having any undue movement outward or inward.

The tumbler-cylinder 26 is slotted to receive the key 29 and apertured to receive the usual pin-tumblers, as shown, and at its inner end said sleeve 26 is provided with the vertical slot 36, corresponding with and adapted to snugly receive the projection 32 on the inner end of the bolt 27 in the manner illustrated in Fig. 3. When the cylinder 26 is so turned by the key 29 that the slot 36 in said cylinder is in line with the projection 32 on said bolt 27, the spring 28, drawing said bolt 27 inward, will move the projection 32 of said bolt into the said slot 36, the said slot 36 and projection 32 then being in the relation in which they are illustrated in Fig. 3. When it is desired, however, to cause the bolt 27 to engage the keeper 30, so as to lock the lever 24 against operation, the key 29 will be inserted through the cylinder 26 in order that its inner end may engage the projection 32 on the bolt 27 and move said projection clear of the cylinder 26, and thereupon by giving the cylinder 26, through the medium of the key 29, a one-quarter revolution the slot 36 at the inner end of the said cylinder will be turned across and at right angles to the end of the projection 32 of the bolt, as illustrated in Fig. 2, whereby the inner end of the cylinder 26 is enabled to operate as a lock to retain the bolt 27 in its outward position shown in Fig. 2. When the bolt 27 is in its outward position, its outer end is within the keeper 30, connected with the register-casing, and hence at such time the lever 24 will be locked against operation. When it is desired to unlock the lever 24, the attendant will give the cylinder 26, through the medium of the key 29, a reverse one-quarter revolution and withdraw the key, thus allowing the spring 28 to retract the bolt 27 into the handle 25 and cause the projection 32 on said bolt to enter the slot 36 in the cylinder 26. The handle 25 is of metal, and at the outer end of the said handle is provided a metal escutcheon-plate 37, which has a beveled periphery and is secured in place by pressing an annular flange 38 on the handle 25 against said beveled periphery, as shown in Fig. 2. The plate 37 contains a circular opening to receive the outer end of the tumbler-cylinder 26. For the purpose of limiting the movement of the tumbler-cylinder 26 I provide the stop-pin 39, extending through the lower side of the handle 25 and engaging a recess 40 (shown more clearly in Fig. 7) in the inner end of the cylinder 26, the end of said recess serving as the stop, in connection with the pin 39, to prevent the cylinder 26 from having imparted to it more than a quarter-revolution during the time such cylinder is turned to cause the slot 36 therein to extend across or at right angles to the projection 32 of the bolt 27. The cylinder 26 carries the pin-tumblers 41 in a well-known manner, and the handle 25 is recessed to receive the spring-drivers 42 43, the drivers 42 serving to lock the cylinder 26 against rotation while the bolt 27 is in its outward position and the drivers 43 being employed mainly to permit the withdrawal of the key 29 when the cylinder 26 has been turned to move its slot 36 into line with the projection 32 on the bolt 27.

The locking mechanism is, as will be understood from the foregoing description, confined to the upper end of the crank or lever 24 and is of such character as to enable its convenient employment without the same constituting an obstruction either to the use of the crank or lever 24 or to the appearance of the register as a whole. The locking mechanism is also located at that portion of the crank or lever 24 at which it is rendered most capable of resisting any strain which might be applied to said lever 24 in any attempt to operate the same.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The cash-register having the driving-shaft 23, and the exposed crank or lever 24 on said shaft, said crank or lever having the handle 25, combined with the tumbler-cylin-

der within said handle, the locking-bolt also within said handle, and the keeper connected with the register-casing for receiving the end of said bolt, said tumbler-cylinder having at its inner end the slot 36, and the adjacent end of said bolt having the projection 32 to enter said slot when said cylinder is turned so that said slot is in alinement with said projection; substantially as set forth.

2. The cash-register having the driving-shaft 23, the exposed operating crank or lever 24 on said shaft, and the handle 25 connected with said lever, combined with the tumbler-cylinder 26 within said handle, the locking-bolt also within said handle, the spring for normally retracting said bolt into said handle, and means for limiting the throw of said bolt and preventing axial motion of said bolt, the said cylinder having at its inner end the slot 36, and said bolt adjacent to the said cylinder having the projection 32 to enter the said slot when said slot and projection are in line with one another; substantially as set forth.

3. The cash-register having the driving-shaft 23, the exposed operating crank or lever 24 on said shaft, and the handle 25 connected with said lever, combined with the cylinder 26 in the outer end of said handle and adapted to receive the key, the bolt 27 within said handle and having at its inner end the projection 32 and adjacent to its outer end the surface 33, the spring encompassing said bolt and normally operating to retract the bolt into said handle, the pin 35 coöperating with said surface 33 to prevent axial turning of the said bolt, and the keeper connected with the register-casing and adapted to receive the end of said bolt when the latter is projected from said handle, said cylinder 26 having at its inner end the slot 36 to receive said projection 32 when the said bolt 27 is at its inward position; substantially as set forth.

Signed at New York, in the county of New York and State of New York, this 21st day of February, A. D. 1900.

ELIJAH F. SPAULDING.

Witnesses:

CHAS. C. GILL,

GUNDER GUNDERSON.