

(No Model.)

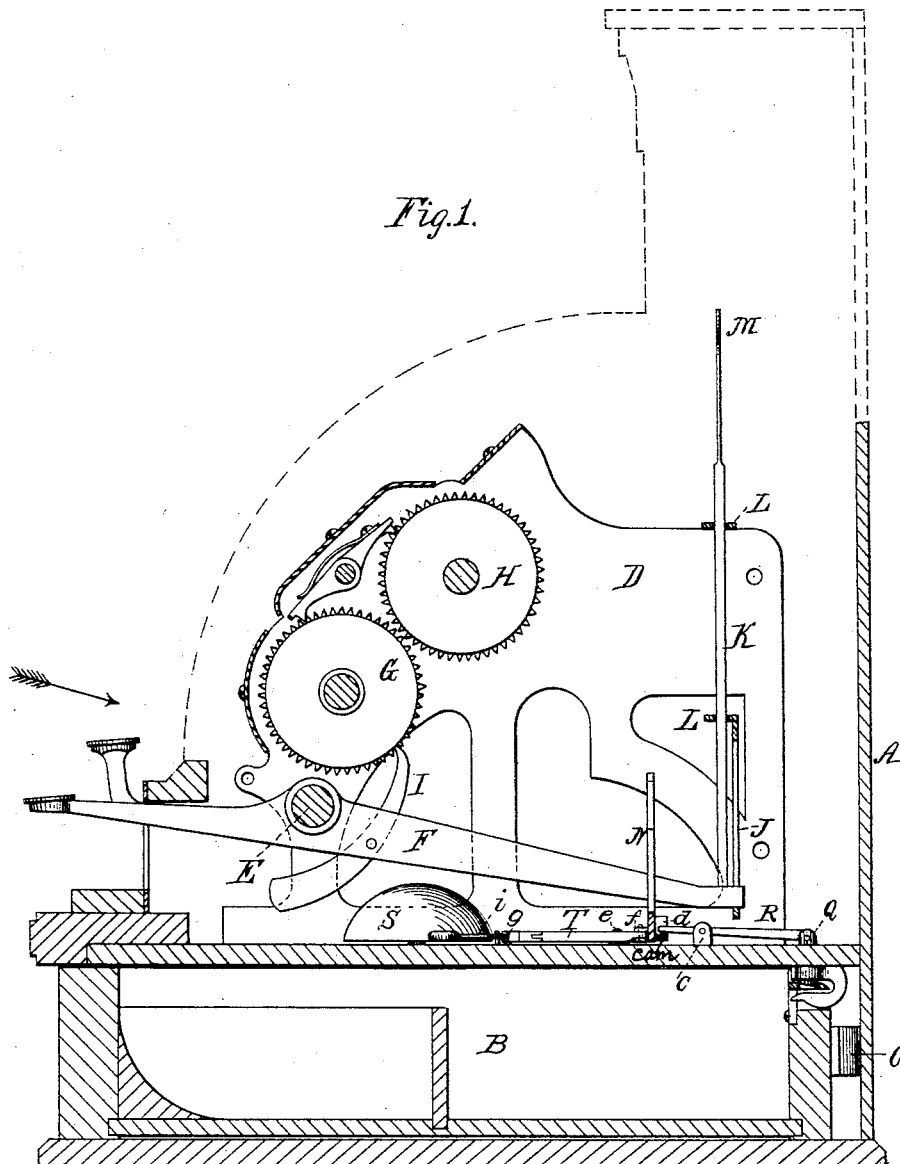
3 Sheets—Sheet 1.

J. H. PATTERSON.

CASH REGISTER AND INDICATOR.

No. 383,007.

Patented May 15, 1888.



Witnesses:
W. C. Jirdinston.
Charles Billon.

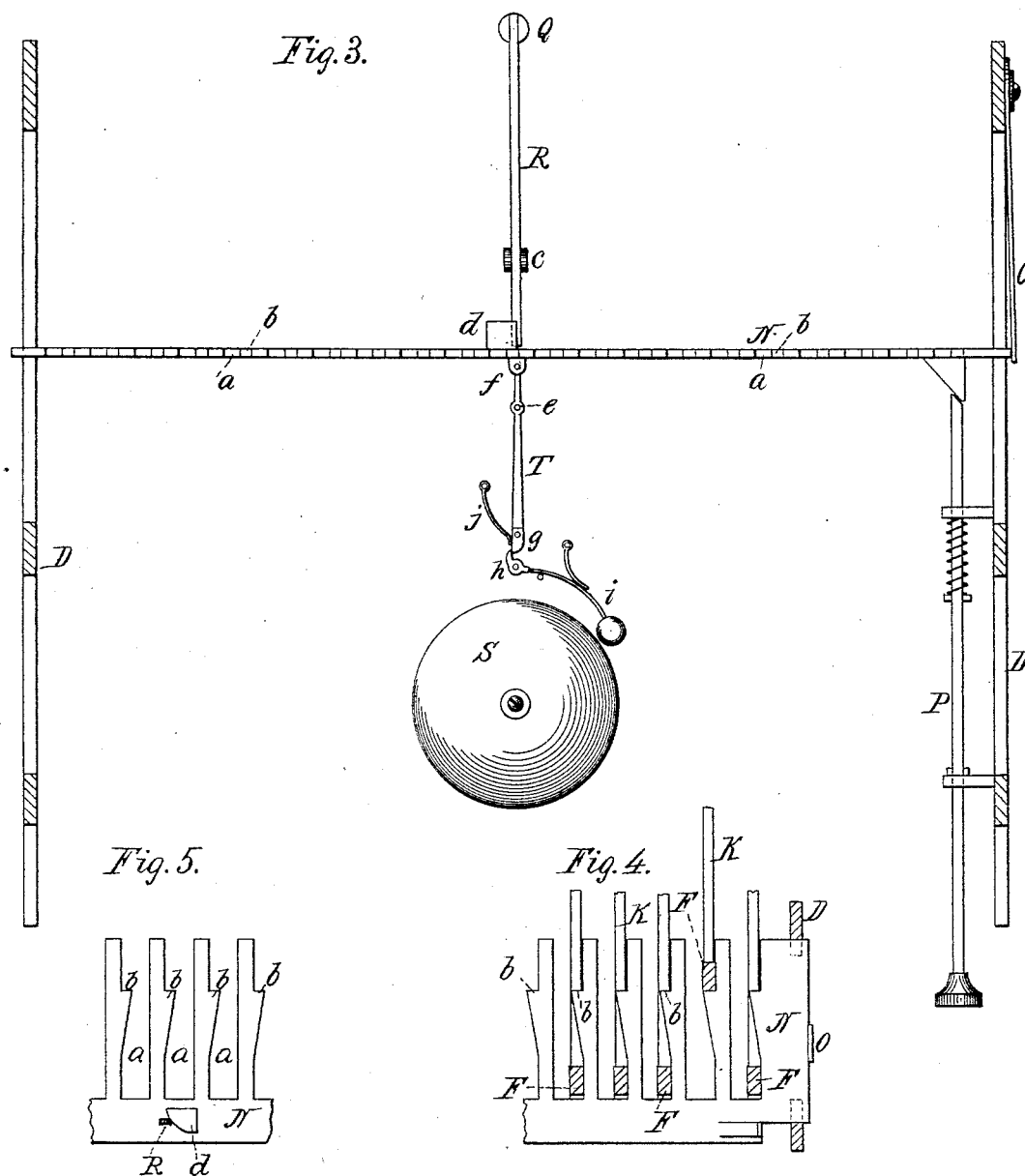
Inventor:
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UNITED STATES PATENT OFFICE.

JOHN H. PATTERSON, OF DAYTON, OHIO.

CASH REGISTER AND INDICATOR.

SPECIFICATION forming part of Letters Patent No. 383,607, dated May 15, 1888.

Application filed February 4, 1888. Serial No. 263,020. (No model.)

To all whom it may concern:

Be it known that I, JOHN H. PATTERSON, 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 and Indicators, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My invention has for its object an improvement in the construction of this class of machines, and its novelty will be herein set forth, and specifically pointed out in the claims.

In the accompanying drawings, Figure 1 is a sectional side elevation of the machine, showing a portion of the case likewise in section. Fig. 2 is a plan view of the machine removed from the case, looking in the direction indicated by the arrow in Fig. 1. Fig. 3 is a plan view of the supporting-bar and its supports and the drawer-bolt and gong-actuating mechanisms. Figs. 4 and 5 are detail views of the supporting-bar. Figs. 2, 3, 4, and 5 are drawn to the same scale, while Fig. 1 is drawn to a diminished scale.

The same letters of reference are used to indicate identical parts in all the figures.

The case A of the machine may be of the usual or any suitable construction, and is provided with the usual drawer-compartment containing the till or drawer B, which in this instance is arranged, when unlocked, to be partially propelled from the case by the spring C.

The machine within the case is supported by suitable side uprights, D, which are connected near their forward ends by a shaft, E, upon which the operating-keys F are strung and pivoted. As is usual in this class of machines, the forward ends of the keys project through a slotted plate in the front of the case and are provided with numbered buttons representing the values to be indicated and registered.

G H represent two banks of registering-wheels, of the usual or any suitable construction, each wheel of the bank G being actuated by its corresponding key through the medium of the dog I, pivoted to said key and engaging with said wheel, as is customary, and well known in this class of machines. The rear

ends of the keys extend back through a slotted guide-plate, J, and carry vertical tablet-rods K, arranged in guides L and provided with the usual indicating tablets, M, arranged to be exposed to view through the ordinary glass-covered reading-openings in the top of the case.

N is a supporting-bar held and arranged to have lateral play in guides in the side uprights of the machine. This bar is provided with vertical slots *a*, which receive the rear portions of the keys F. The walls on one side of the slots—in this instance the right-hand side—are inclined or beveled, as shown, said inclines terminating at their upper ends in off-sets or shoulders *b*. Any suitable spring, O, bearing against the end of the bar N serves to hold said bar in and return it to its normal position of rest, with the right-hand walls of the slots bearing against the sides of the keys, as seen in Figs. 2 and 4.

From this construction it will be seen that whenever the front end of any key is depressed, its rear end in rising bears against the inclined wall of its slot and pushes the bar N aside, until the key passes above the incline, whereupon the bar N returns to its normal position, with the shoulder *b* under the elevated key, in such manner that when the front end of the key is released its rear end rests upon and is supported by said shoulder, as seen in Fig. 4, thereby holding up the tablet-rod and the tablet exposed to view by the operation of that key. Upon operating a second key, its rear end in rising bears against the inclined wall of its slot and pushes aside the bar N, thereby moving the shoulder *b* from under the previously-operated key and permitting it and its tablet-rod and tablet to drop, while the newly-operated key is caught by the shoulder *b* of its slot and held with its tablet exposed to view, as before described.

It will be seen that two or more keys may be operated simultaneously to register their values and expose their corresponding tablets and will be all released and their tablets dropped from view by the subsequent operation of another key.

To enable the same key to be successively operated, any suitable device engaging with the bar N and extending outside the case may be employed for the purpose of pushing the bar N aside and releasing the key and its ele-

vated tablet-rod and tablet preparatory to its second operation. In Fig. 3 is shown one form of such device, consisting of a spring push-bar, P, engaging with a horizontal incline on the lower front side of the bar N. The necessity for any such device is largely obviated by the practice of employing duplicate keys and tablets of the values most frequently used, generally the keys from 5 to 25, inclusive, and commonly arranged at opposite sides of the machine.

The weight of the tablet-rods and the rear ends of the keys is sufficient to reset them when released from their elevated position by the movement of the bar N, though, if desired, the tablet rods may be provided with the usual resetting-springs.

In order that the keys, when in their normal position of rest, may not rest directly against the bottoms of the slots in the bar N, and thereby interfere with the free lateral movement of said bar, the bottom wall of the slotted guide-plate J is preferably arranged to hold the rear portions of the keys slightly above the bottoms of the slots in the bar N, as seen in Fig. 4.

If desired, the upper portion of the bar N may be cut off level with the shoulders b, as that part of the walls between the slots which is above the shoulders b is not essential to the operation of the machine. Again, while the bar N has been shown and described as being held in and returned to its normal position by means of a spring, O, the same result may be accomplished by dispensing with the spring and inclining the upper portions of the left-hand walls of the slots over the vertical portions of said slots.

The drawer-bolt and gong mechanisms are operated by the bar N in the following manner: The drawer-bolt Q, of the usual or any suitable construction, is actuated by the lever R, pivoted, as at c, and having its forward end engaging under a cam or beveled lug, d, upon the lower rear side of the bar N, as seen more particularly in Fig. 5, in such manner that when the bar N is pushed aside by the operation of any key the lug d rides over and presses down the end of the bolt-lever R, thereby lifting the bolt Q and unlocking the drawer, so that the drawer may either be opened by hand or automatically opened by the spring C, where the latter is employed. The return of the bar N to its normal position permits the bolt Q to fall back to engage with the drawer when the latter is pushed in.

The gong S is suitably supported within the case, and is arranged to be sounded whenever any key is operated, in the following manner: A trip-lever, T, pivoted, as at e, is connected at its rear end by any suitable means to the bar N—in this instance by pivotal connection to lugs f upon the front side of said bar. The arm T is provided with the usual should-

ered tripping-dog, g, which engages with the bell-crank h of the spring-pressed gong-hammer i. The movement of the bar N to the right upon the operation of any key causes sufficient vibration of the arm T to throw back the gong-hammer i, the parts being so adjusted that just as the bar N reaches its extreme limit of motion the dog g will have cleared the bell-crank h and the gong-hammer will strike the gong. The return of the bar N to its normal position resets the arm T, and a light spring, j, causes the re-engagement of the dog g with the bell-crank h, as will be readily understood.

It will be noticed that whenever the bar N is moved aside by pushing in the rod P the drawer is unlocked and the gong sounded, and the device may thus be utilized for the purpose of opening the drawer, when it is desired to do so, without operating a key and actuating the registering mechanism.

I am aware of the construction shown and described in Patent No. 347,296, to Hopkins, and do not claim the same; but,

Having thus fully described my invention, I claim—

1. In a cash register and indicator, the combination of the pivoted keys F, provided at their front ends with finger-buttons, and strung upon the shaft E, the vertical tablet-rods K, arranged in guides and carrying the indicating tablets M, and the slotted supporting-bar N, operating when a key is depressed to its fullest extent to automatically engage said key and hold its rear end elevated and its tablet exposed to view and to disengage said key and engage a second key when the latter is fully depressed, substantially as described.

2. The combination of the keys F, pivoted on the shaft E, tablet-rods K and tablets M, slotted supporting-bar N, drawer B, drawer-bolt Q, and a cam mechanism on the bar N for operating said bolt Q, substantially as and for the purpose described.

3. The combination of the keys F, pivoted on the shaft E, tablet-rods K and tablets M, slotted supporting-bar N, gong S, and its gong-hammer, and tripping mechanism between the bar N and said gong-hammer operated by said bar, substantially as and for the purpose described.

4. The combination of the keys F, pivoted on the shaft E, tablet-rods K and tablets M, slotted supporting-bar N, drawer B, drawer-bolt Q, gong S and its gong-hammer, and connecting mechanism between the bar N and the drawer-bolt and gong-hammer and operated by the bar N, substantially as and for the purpose described.

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Witnesses:

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