

(No Model.)

E. D. GIBBS.
CASH REGISTER.

3 Sheets—Sheet 1.

No. 509,658.

Patented Nov. 28, 1893.

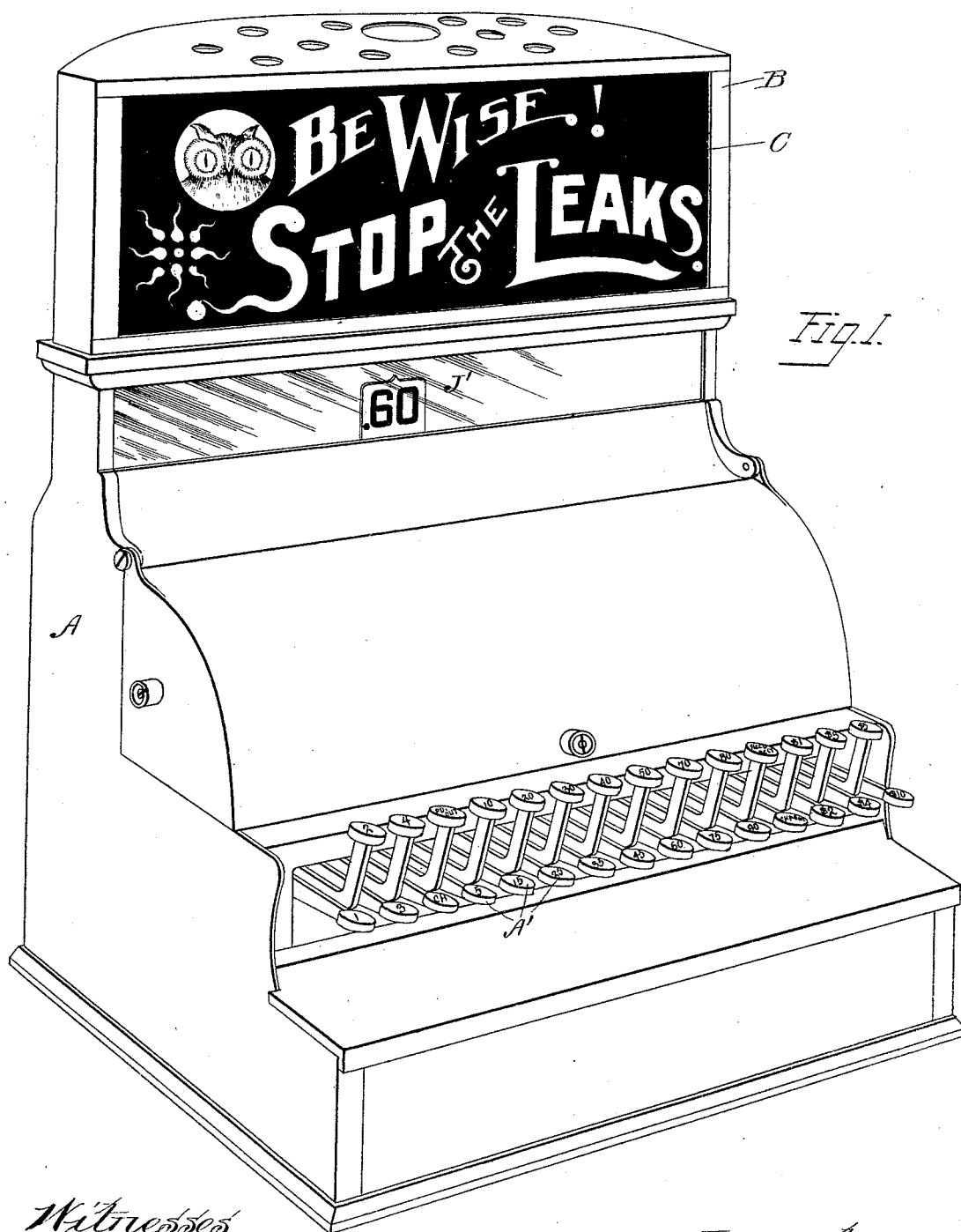


Fig. 1.

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R. B. Caffray.

Inventor
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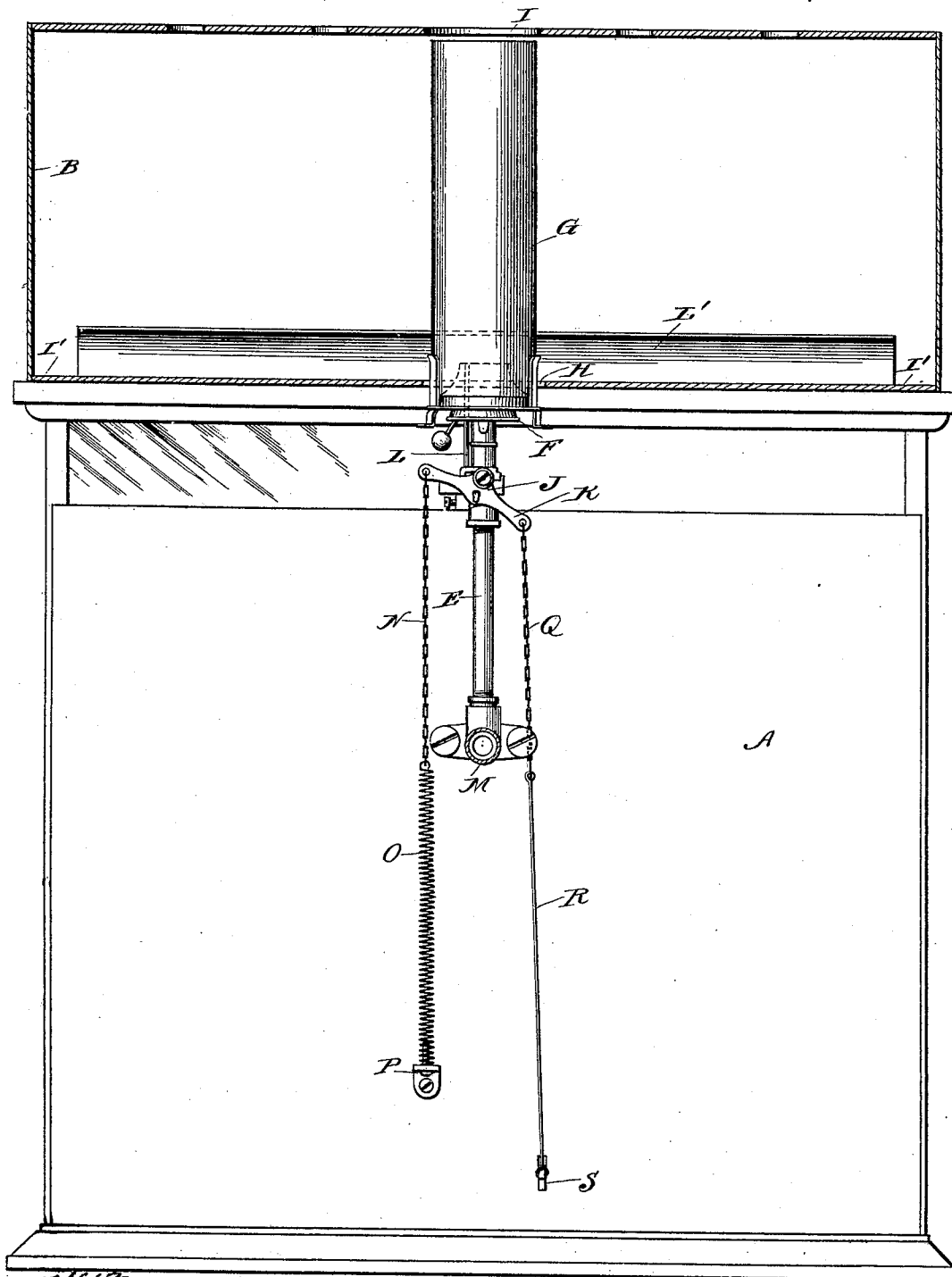
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Fig. 2.

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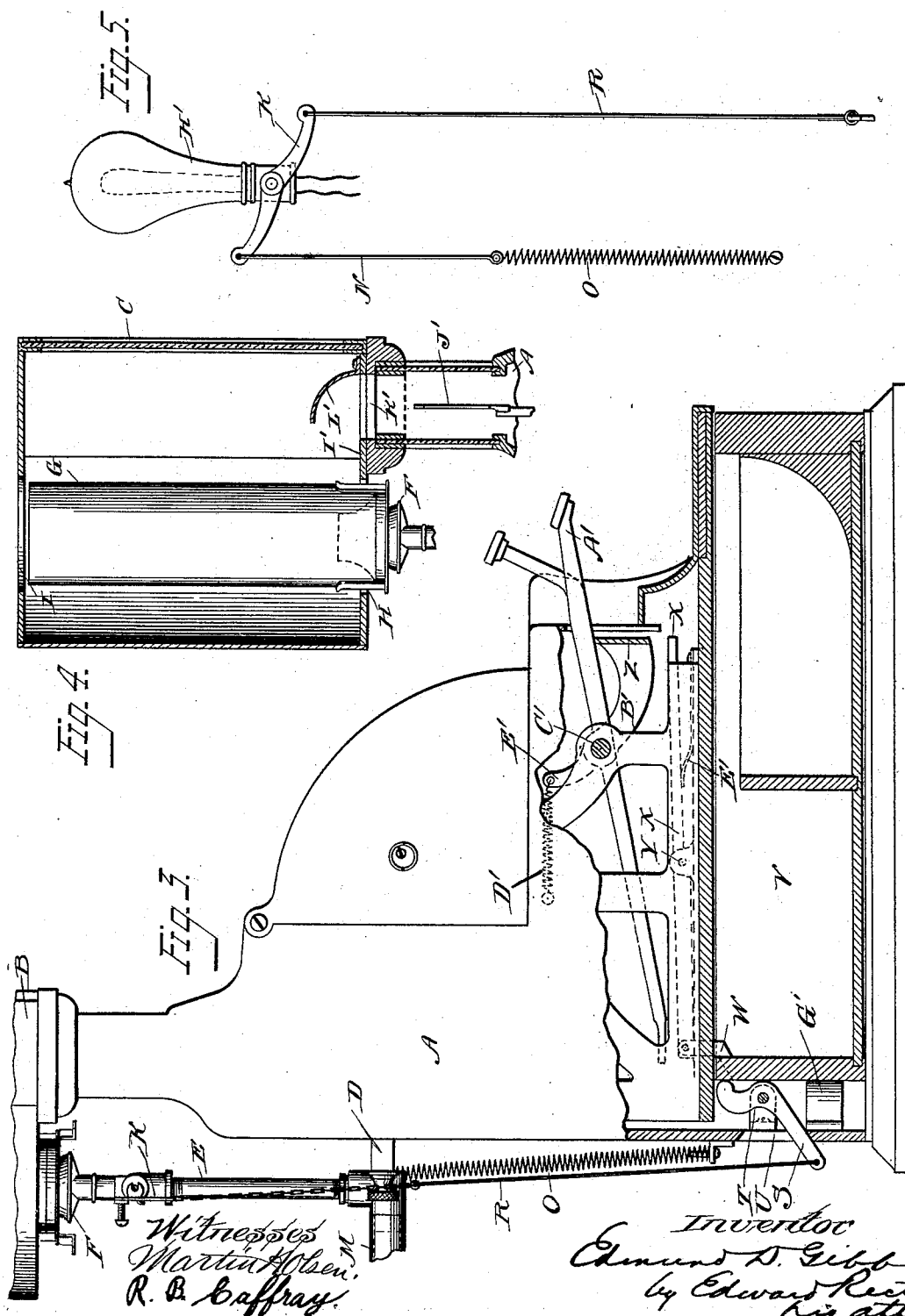
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3 Sheets—Sheet 3.

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No. 509,658.

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Inventor
Edmund D. Gibbs
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UNITED STATES PATENT OFFICE.

EDMUND D. GIBBS, OF DAYTON, OHIO, ASSIGNOR TO THE NATIONAL CASH REGISTER COMPANY, OF SAME PLACE.

CASH-REGISTER.

SPECIFICATION forming part of Letters Patent No. 509,658, dated November 28, 1893.

Application filed May 24, 1893. Serial No. 476,351. (No model.)

To all whom it may concern:

Be it known that I, EDMUND D. GIBBS, a citizen of the United States, residing at Dayton, in the county of Montgomery and State of Ohio, have invented a certain new and useful Improvement in Cash-Registers, of which the following is a description, reference being had to the accompanying drawings, forming part of this specification.

My invention consists in the novel combination with a cash register of an automatically operated illuminating device, such as a gas or electric lamp, employed in one instance for illuminating a sign or advertising plate, and in another for throwing light upon the indicators of the machine to bring them clearly into view when the space in which the machine is placed is not otherwise sufficiently light for that purpose. The illuminating device is controlled by the keys, or some other moving part of the machine actuated at each operation, so that it will be caused to illuminate the sign or throw light upon the indicators each time the machine is operated.

In the particular embodiment of my invention which has been illustrated in the drawings I have placed upon the top of an ordinary cash register an illuminating chamber whose forward side is composed of a glass plate, the ground of which is opaque or only semi-translucent, while the words and characters of the sign to be displayed are formed of translucent or transparent portions of the glass. The inner face of the rear wall of the chamber, opposite the sign, is preferably covered with a reflecting plate, between which rear wall and the sign, within the chamber, is located the lamp. The top of the casing of the machine, immediately above the space occupied by the indicators, is provided with a transverse slot or opening, extending the entire length of the row of indicators, and above and in front of this opening is secured a curved reflecting plate, adapted to reflect upon the indicators below the light which is thrown upon it by the lamp.

In the drawings I have shown in one instance a gas lamp as the illuminating device, and in the other an electric lamp. In the former case the valve controlling the supply

of gas is connected with the usual money-drawer of the machine in such manner that when such drawer is released and thrown open by the operation of a key the valve will be actuated to admit gas to the burner, where it will be lighted by a minute jet which is left continuously burning; and when the money-drawer is closed again the valve is actuated to shut off the supply of gas. In the other case the circuit-breaker controlling the passage of the electric current through the lamp is similarly connected with the money-drawer, so that when the drawer is open the current will be permitted to pass through the lamp, and when it is closed the circuit will be broken. Instead of thus intermittently illuminating the sign and indicators by automatically turning on and shutting off the supply of gas or electricity, the lamp may be left burning constantly, and an automatic screen be combined therewith and connected with the money-drawer or other moving part of the machine in such manner that the light will be intermittently thrown upon the sign and indicators by the operations of the machine.

In the accompanying drawings Figure 1 represents a perspective view of a cash register of familiar construction, embodying my invention; Fig. 2 a rear elevation of the same, with the illuminating chamber in section; Fig. 3 a side view of the same with the upper part of the illuminating chamber broken away, and the lower part of the machine in section; Fig. 4 a sectional detail of the upper part of the machine, showing the reflector for throwing the light upon the indicators; and Fig. 5 a view of an electric lamp and its associated devices.

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

Secured upon the top of the casing A is the illuminating chamber B, preferably of substantially the same width as the casing and of a convenient height for the style of sign to be employed. The rear wall of the chamber B is preferably curved so as to present a concave reflecting surface, and may be covered with any suitable reflecting plate, or itself be composed of metal having a bright reflecting surface. The top of the chamber is

preferably perforated to permit the ready escape of the heated air. The forward part of the chamber is composed in this instance of a glass plate C, the main portion or ground of which is either opaque or darkly colored, while the portion of the glass occupied by the words and characters of the sign to be displayed are left transparent or are colored differently from the main ground of the plate.

Supported by a bracket D upon the rear side of the casing is a vertical gas pipe E carrying at its upper end an ordinary Argand gas burner F having fitted upon it a glass chimney G which extends through an opening H in the bottom of the illuminating chamber and terminates beneath an opening I in the top thereof. Interposed in the pipe E, beneath the burner F, is a valve J of familiar construction adapted to be opened and closed by the oscillations of a lever K. Extending from the chamber of the valve J upward to a point adjacent the gas jet of the burner F is a small tube L to which a continuous supply of gas is admitted, and at the upper end of which the gas is constantly burning. The supply of gas to this auxiliary lighting tube is not affected by the opening and closing of the valve J, the supply being continuous as before stated, and as is common in burners of this character.

The main gas supply pipe M is connected to the pipe E, or a fitting thereon, at its lower end, as shown. To the left hand arm of the valve-lever K is connected a chain N whose lower end is connected to the upper end of a coiled spring O which latter is secured at its lower end to a bracket P upon the rear side of the casing. To the right hand arm of the valve lever is connected a chain Q connected to the upper end of a rod R which in turn is connected at its lower end to the rear end of a bent lever S, Fig. 3, which is pivoted to a bracket T within and upon the rear wall of the drawer-compartment of the machine, the rear end of the lever S projecting through a vertical slot U in the rear wall of the casing. When the money-drawer V is in its closed position the engagement of its rear end with the upper end of the lever S holds the latter tilted rearward and its rear end thrown downward, in the position seen in Fig. 3, maintaining the valve-lever K in the position shown in Fig. 2, in which position the valve is closed and no gas is being admitted to the burner F, though a minute jet is burning at the upper end of the tube L. If the money-drawer V be now opened the lever S will be freed from its rear end and the spring O will immediately draw down the left hand arm of the valve-lever K and open the valve, and the full supply of gas admitted to the burner F will be at once ignited by the jet at the upper end of the tube L, as is usual in such burners. When the money-drawer is again closed the lever S will be tilted back to the position shown in Fig. 3, and the rod R and chain Q will draw down the right hand arm of the valve-lever K, against the resistance of the spring O, and

close the valve, thereby shutting off the supply of gas and extinguishing the light. The money-drawer V when in its closed position is locked by a bolt W carried by the rear end of a lever X pivoted to a bracket Y upon the top of the drawer-compartment and projecting forwardly beneath a cross-bar Z underlying the entire series of keys A' and hung by arms B' at each end upon the fulcrum-shaft C' of the keys. The cross-bar Z is held in its normal position, against or adjacent to the under sides of the keys A', by a spring D' connected to an upward extension E' of one of its side arms B'. Whenever any one of the operating keys A' is depressed it carries down the cross-bar Z and the latter engages and depresses the front end of the drawer-bolt-lever X, against the resistance of a spring E' bearing against its under side, and lifts the bolt W at the rear end of the lever X out of engagement with the rear wall of the drawer V, whereupon the latter is automatically thrown open by a spring G' secured to the rear wall of the drawer-compartment and bearing against the rear end of the drawer. It will be understood that a suitable opening in the top of the drawer-compartment is provided for the passage of the locking bolt W, and the rear end of the drawer is preferably provided with a beveled recess in line with the bolt W, as indicated by the dotted lines, so that when the drawer is closed the beveled surface of said recess will ride under and lift the bolt W as the rear wall of the drawer passes the bolt, after which the bolt will be thrown downward in front of the rear wall of the drawer and lock the same in its closed position as shown.

The mechanism which I have shown between the operating keys and drawer-bolt, for releasing the drawer at the operation of any key in the series, is of familiar construction, and any other suitable devices may be substituted for it. So, too, I do not wish to restrict my invention to the employment of the money-drawer as the particular element of the machine which shall co-operate with the lighting apparatus, though I prefer to employ the drawer for that purpose, since the drawer remains open while the money is being deposited in it and change is being made, and is then generally closed, so that the sign will be illuminated for about the desired length of time at each operation of the machine.

It is evident that an ordinary gas jet, having combined with it an auxiliary lighting tube L, may be substituted for the Argand burner and chimney illustrated in the drawings and above described, and the use of the word lamp in my claims is intended to be broad enough to include this substitution.

The employment of an electric lamp instead of the gas lamp or jet will be readily understood from Fig. 4, where the lever K, instead of operating the valve in a gas pipe, operates the circuit-breaker of an electric lamp H' in the same manner.

It is of course immaterial what words or

characters are employed on the sign, and it may be used for advertising or any other desired purpose.

As seen in Fig. 4, the top plate I' of the casing, immediately above the space occupied by the indicators J' and to which the illuminating chamber is in this instance secured, is provided with a transverse opening K' immediately in front of the vertical plane of the indicators, the bottom of the illuminating chamber being provided with a coincident opening. This opening extends the entire width of the machine, and secured in front of the opening and extending the length of the same is an upwardly and rearwardly curved reflecting plate L'. The light thrown upon this plate by the lamp, or reflected upon it by the curved rear wall of the illuminating chamber, is thrown downward by it through the opening K' upon the forward sides of the indicators J', thereby bringing the latter clearly into view each time the machine is operated, no matter whether the machine is located in a well-lighted space or in a dark one.

It will be apparent that the automatically operated illuminating device, which in this instance is used both to illuminate the sign and throw light upon the indicators, may be employed for either purpose independently of the other.

So far as I am aware I am the first to employ for any purpose an illuminating device of any sort in a cash register and so combine it with the operating keys or other moving part thereof that it will be automatically thrown into action at each operation of the machine, and I desire to secure the same as my invention as broadly as may be done.

Having thus fully described my invention, I claim—

1. The combination, with a cash register employing a series of keys to indicate and register different amounts, of an illuminated sign, an illuminating device co-operating therewith, and means common to and controlled by the operating keys for causing said device to automatically illuminate the sign when any one or another of said keys is operated, substantially as described.

2. The combination, with a cash register employing a series of keys to indicate and register different amounts, of an illuminated sign, a lamp for intermittently illuminating the same, and means common to and controlled by the operating keys for causing the lamp to illuminate the sign when any one or another of said keys is operated, substantially as described.

3. The combination, with a cash register employing a series of keys to indicate and register different amounts, of an illuminated sign, a lamp for intermittently illuminating the same, a money-drawer, holding means therefor released by the operations of the keys and means intermediate the money drawer and lamp for causing the latter to illuminate the

sign at each opening of the drawer, substantially as described.

4. The combination, with a cash register, of an illuminated sign, a lamp for intermittently illuminating the same, an automatically-opening money-drawer controlled by the keys and released and opened at each operation of the machine, and means intermediate the drawer and lamp for causing the latter to illuminate the sign at each opening of the drawer, substantially as described.

5. The combination, with a cash register employing a series of keys to indicate and register different amounts, of an illuminated sign, a lamp for illuminating the same, to which the illuminating substance is intermittently supplied, and means common to the keys for controlling such supply and actuated at each operation of the machine to cause the lamp to illuminate the sign, substantially as described.

6. The combination, with a cash register employing a series of operating keys, of an illuminated sign, a lamp for illuminating the same, to which the illuminating substance is intermittently supplied, a money-drawer opened by the operations of the keys, and means controlling the supply of illuminating substance and co-operating with the drawer to illuminate the sign when the drawer is opened, substantially as described.

7. The combination, with a cash register, of an illuminated sign, a lamp for illuminating the same, to which the illuminating substance is intermittently supplied, a money-drawer, a spring for throwing the same open, a latch for holding it closed, the operating keys and connections with the latch for releasing the drawer at each operation of the machine, and means controlling the supply of illuminating substance and co-operating with the drawer, to illuminate the sign when the drawer is opened, substantially as described.

8. In a cash register, the combination, with the operating keys and the indicators actuated thereby, of an illuminating device, a reflector for throwing the light upon the indicators, and means controlled by the keys for automatically throwing the illuminating device into action at each operation of the machine, substantially as described.

9. In a cash register, the combination of the indicators, a lamp to which the illuminating substance is intermittently supplied, means controlling such supply actuated at each operation of the machine to admit the supply to the lamp, and a reflector for throwing the light of the lamp upon the indicators, substantially as described.

10. In a cash register, the combination of the indicators, a lamp to which the illuminating substance is intermittently supplied, a reflector for throwing the light of the lamp upon the indicators, a money-drawer, and means controlling the supply of illuminating substance and co-operating with the drawer to admit such supply to the lamp at each

opening of the drawer, substantially as described.

11. In a cash register, the combination of the indicators, a lamp to which the illuminating substance is intermittently supplied, a reflector for throwing the light of the lamp upon the indicators, a money-drawer, a spring for throwing the same open, a latch for holding it closed, the operating keys and connections with the latch for releasing the drawer at each operation of the machine, and means controlling the supply of illuminating substance and co-operating with the drawer to admit such supply to the lamp at each operation of the machine, substantially as described.

12. In a cash register employing a series of keys to indicate and register different amounts, the combination of a lamp to which the supply of illuminating substance is intermittently admitted, and means common to the keys for controlling such supply and actuated at the operation of any one or other of said keys to admit the supply to the lamp, substantially as described.

13. In a cash register employing a series of operating keys, the combination of a lamp to which the illuminating substance is intermittently supplied, a money-drawer opened by the operations of the keys, and means common to and controlling the supply of illuminating substance and co-operating with the drawer to admit the supply to the lamp at each opening of the drawer, substantially as described.

14. In a cash register, the combination of a lamp to which the illuminating substance is intermittently supplied, a money-drawer, a spring for throwing it open, a latch for holding it closed, the keys and connections with the latch for releasing the drawer at each operation of the machine, and means controlling the supply of illuminating substance and co-operating with the drawer to admit the supply to the lamp at each operation, substantially as described.

15. In a cash register, the combination of a lamp to which the illuminating substance is intermittently supplied, means for controlling said supply, a spring co-operating with such means to admit the supply to the lamp, and means controlled by the keys for preventing action of the spring except when a key is operated, substantially as described.

16. In a cash register, the combination of a lamp to which the illuminating substance is

intermittently supplied, means actuated by a lever for controlling such supply, a spring to move the lever in one direction, and means intermediate the lever and the money-drawer of the machine for holding the lever against movement while the drawer is closed, substantially as described.

17. In a cash register, the combination of a lamp to which the illuminating substance is intermittently supplied, means actuated by a lever for controlling such supply, a spring tending to move the lever in one direction, a money drawer, a spring for throwing it open when released, a lock for holding it closed, the operating keys and connections with the lock for releasing the drawer at each operation of a key, and means intermediate said drawer and the lever for holding the latter against movement by the spring while the drawer is closed, substantially as described.

18. The combination, with a cash register, of an electric circuit, a lamp interposed therein, and a circuit-breaker common to and controlled by the operating keys of the machine, whereby the circuit through the lamp is automatically established and broken at each operation of the machine, substantially as described.

19. The combination, with a cash register, of an electric circuit, a lamp interposed therein, a circuit-breaker, a spring co-operating with the latter and tending to move it to establish the circuit through the lamp, and means intermediate the circuit-breaker and the money-drawer of the machine for holding the former from movement by the spring while the drawer is closed, substantially as described.

20. The combination, with a cash register, of an electric circuit, a lamp interposed therein, a circuit-breaker, a spring co-operating with the latter and tending to move it to establish the circuit through the lamp, the money-drawer, a spring for throwing it open, a latch for holding it closed, the operating keys and connections with the latch for releasing the drawer at each operation of the machine, and means intermediate the drawer and the circuit-breaker for holding the latter from movement by the spring while the drawer is closed, substantially as described.

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