

(No Model.)

W. G. LATIMER.

KEY LOCKING DEVICE FOR CASH REGISTERS.

No. 452,845.

Patented May 26, 1891.

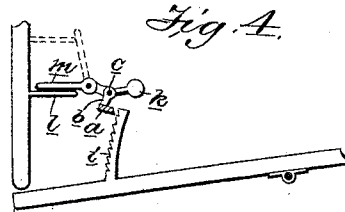
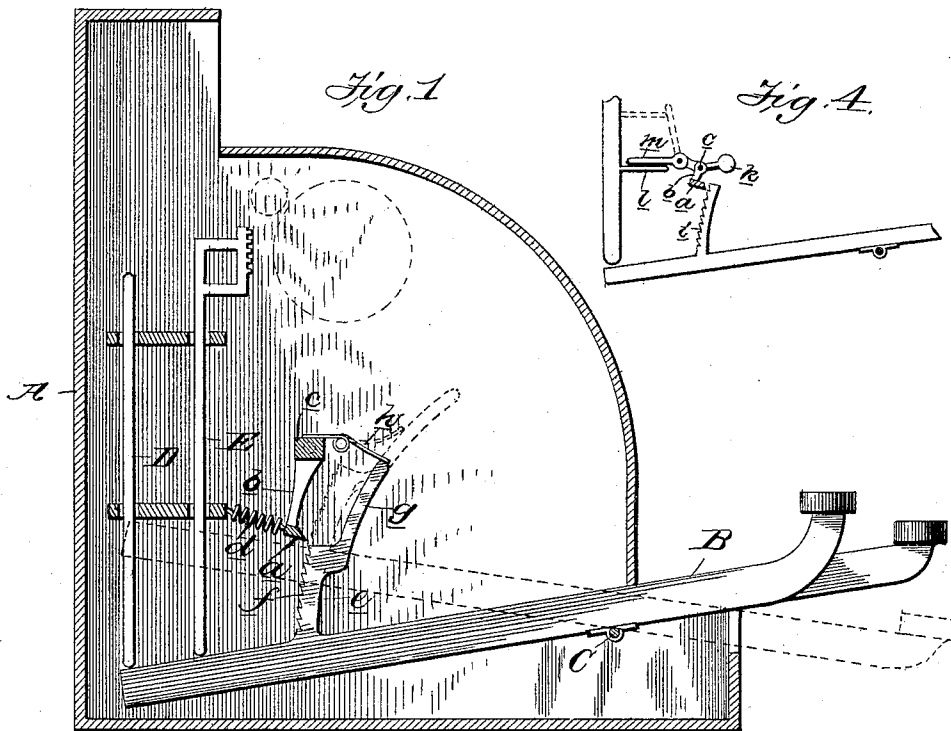


Fig. 3.

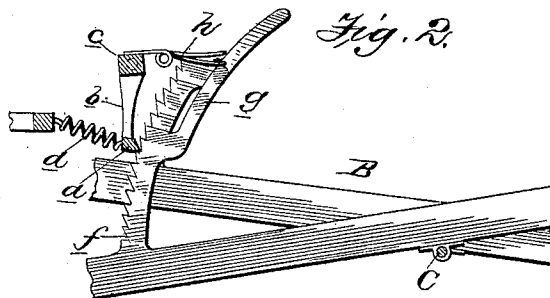
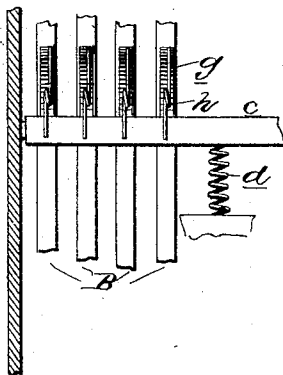


Fig. 2.

Witnesses

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UNITED STATES PATENT OFFICE.

WILLIAM G. LATIMER, OF DETROIT, MICHIGAN, ASSIGNOR TO THE LATIMER CASH REGISTER COMPANY, OF SAME PLACE.

KEY-LOCKING DEVICE FOR CASH-REGISTERS.

SPECIFICATION forming part of Letters Patent No. 452,845, dated May 26, 1891.

Application filed July 22, 1890. Serial No. 359,556. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM G. LATIMER, a citizen of the United States, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Cash-Registers, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to new and useful improvements in cash-registers; and the invention relates to the construction of mechanism designed to prevent the simultaneous operation of two or more keys in the same group.

This invention consists in constructing a locking-bar in normal position to allow the free operation of any one key, but which upon the operation of two keys becomes operative and locks all of the keys.

The means used in carrying out the invention preferably consists of a bar held in its inoperative position by a spring, and spring-arms of less power adapted to be struck by each key, such springs being of such tension that when two keys are struck the power is sufficient to overcome the tension of the spring of the locking-bar and throw the locking-bar into operation. An obvious equivalent of this device is to use a locking-bar held by gravity out of operation, and of a weight for each key, two weights being required to overbalance the locking-bar and throw it into operation.

In the accompanying drawings my invention is shown applied to a cash-register such as shown in my patent, No. 409,107, dated August 13, 1889.

Figure 1 is a vertical central section through such a cash-register, showing my invention applied. Fig. 2 is a similar section showing the locking-bar in operative position. Fig. 3 is a plan view of the locking mechanism. Fig. 4 is a section showing a modification.

A is the case of the machine.

B are the keys, pivoted upon the transverse shaft C. These keys are arranged in banks of nine, each key representing a digit. Each key carries at its rear end the tablet-rod D, having a tablet representing a corre-

sponding value secured at the top, and a register-operating rod E, having suitable connections to operate the register-wheels, these parts all being as constructed and operated in the manner described in my previous patent referred to.

a is a locking-bar secured by the hangers b to the supporting-bar c, which is pivoted in the frame of the machine. The hangers are held normally in a vertical position by the spring d.

e are curved arms upon the keys, located with their rear faces in proximity to the bar a and provided with a series of notches f.

g are striker-arms extending upwardly from the arms e, adapted to strike the springs h, secured to the bar c, one for each key. Each of these springs is of lesser power than the spring d, but the combined power of two of the springs is of greater power than the spring d. Thus if one key is struck the arm g will bear against the spring h, but it will not be sufficient to overcome the power of the spring d; but if two keys are struck simultaneously the combined power of the two springs h will be sufficient to overcome the power of the spring d, rock the bar c, causing the locking-bar a to swing in and engage with the rack i upon the arm e and prevent the operation of either key, but in no wise preventing the return of the keys to normal and the succeeding operation of either key.

In Fig. 4 is shown a modification. a is the locking-bar, b are hangers, and c is a pivoted supporting-bar, being of equivalent construction to that shown in Figs. 1, 2, and 3. The bar a is held out of engagement with the rack i by a counter-weight k. Each key has a pin l secured to its rear side, upon which rests a weight m, pivoted to the bar c. In normal position this weight m is sustained upon the pin l. Upon the operation of a key the weight is turned upon its pivot to the position shown in dotted lines in Fig. 4, and it acts against the counterbalance-weight k. One weight m is not sufficient to overbalance the weight k, but two weights m are sufficient to overbalance the weight and cause the locking-bar a to engage with the rack i and lock the keys.

What I claim as my invention is--

1. In a cash-register, the combination, with the keys, of mechanism for preventing the simultaneous operation of two or more keys, consisting of a locking-bar held normally out of operative position upon the operation of a single key, and means for applying power to put said bar in operative position upon the operation of two or more keys, substantially as described.
2. In a cash-register, the combination, with the keys, of a locking-bar, means applied to hold said bar normally out of operation upon the operation of one key, and counteracting means brought into action by the operation of two or more keys and adapted to be returned to normal upon the release of said keys, substantially as described.
3. In a cash-register, the combination, with the keys, of the rack *i* thereon, the bar *a*, held normally out of contact by the spring *d*, and means for overcoming the power of said spring

to bring said bar into engagement with the rack upon the operation of two or more keys, substantially as described.

4. In a cash-register, mechanism for preventing the simultaneous operation of two or more keys, consisting of the bar *a*, the spring *d*, the springs *h*, of lesser power than the spring *d*, and a connection between the keys and the spring *d*, substantially as described.

5. In a cash-register, mechanism for preventing the simultaneous operation of two or more keys, consisting of a locking-bar *a*, the spring *d*, the springs *h*, of lesser power than the spring *d*, the arm *e* upon the keys, the rack *i*, and arm *g*, substantially as described.

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

WILLIAM G. LATIMER.

Witnesses:

M. B. O. DOGHERTY,
JAMES WHITTEMORE.