

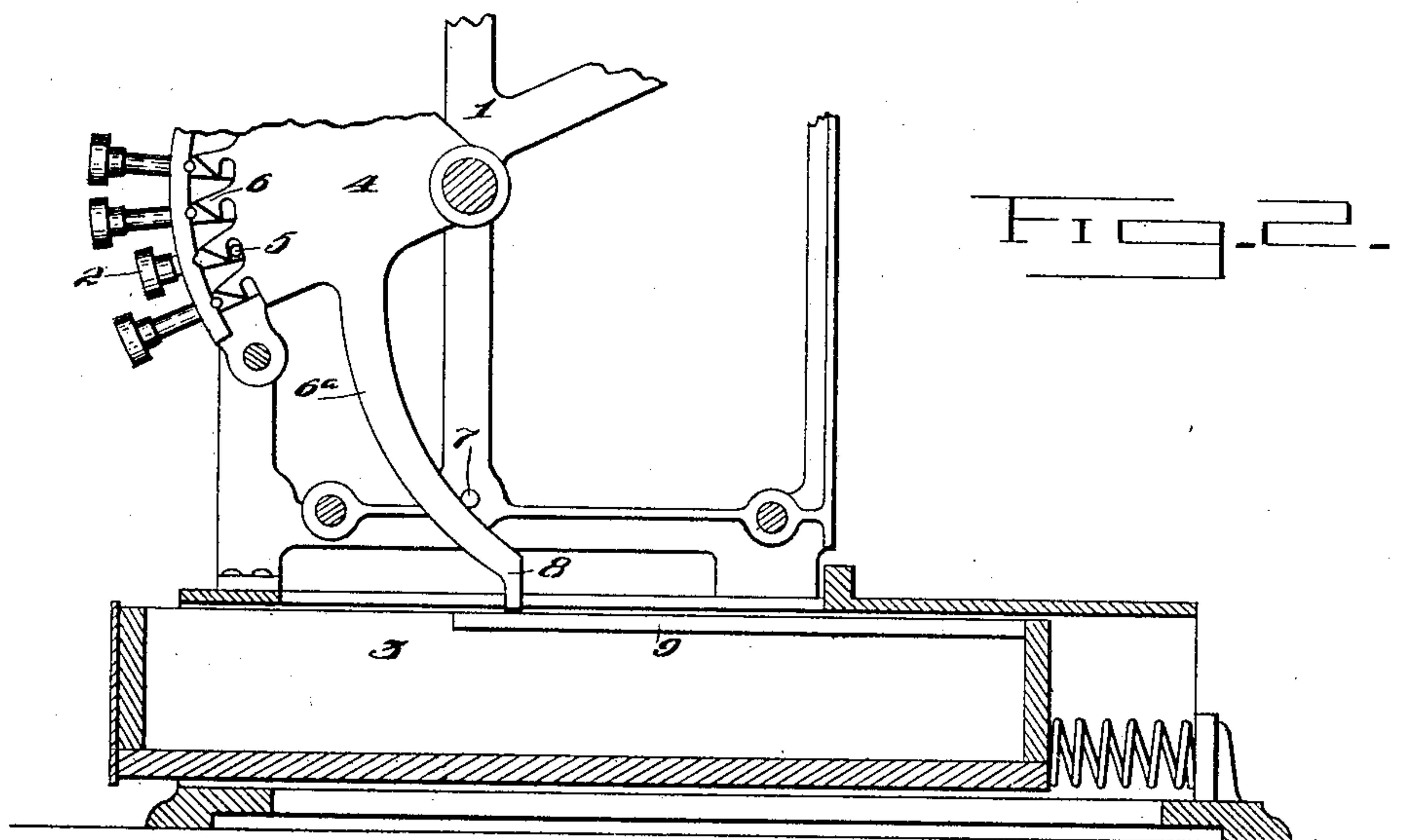
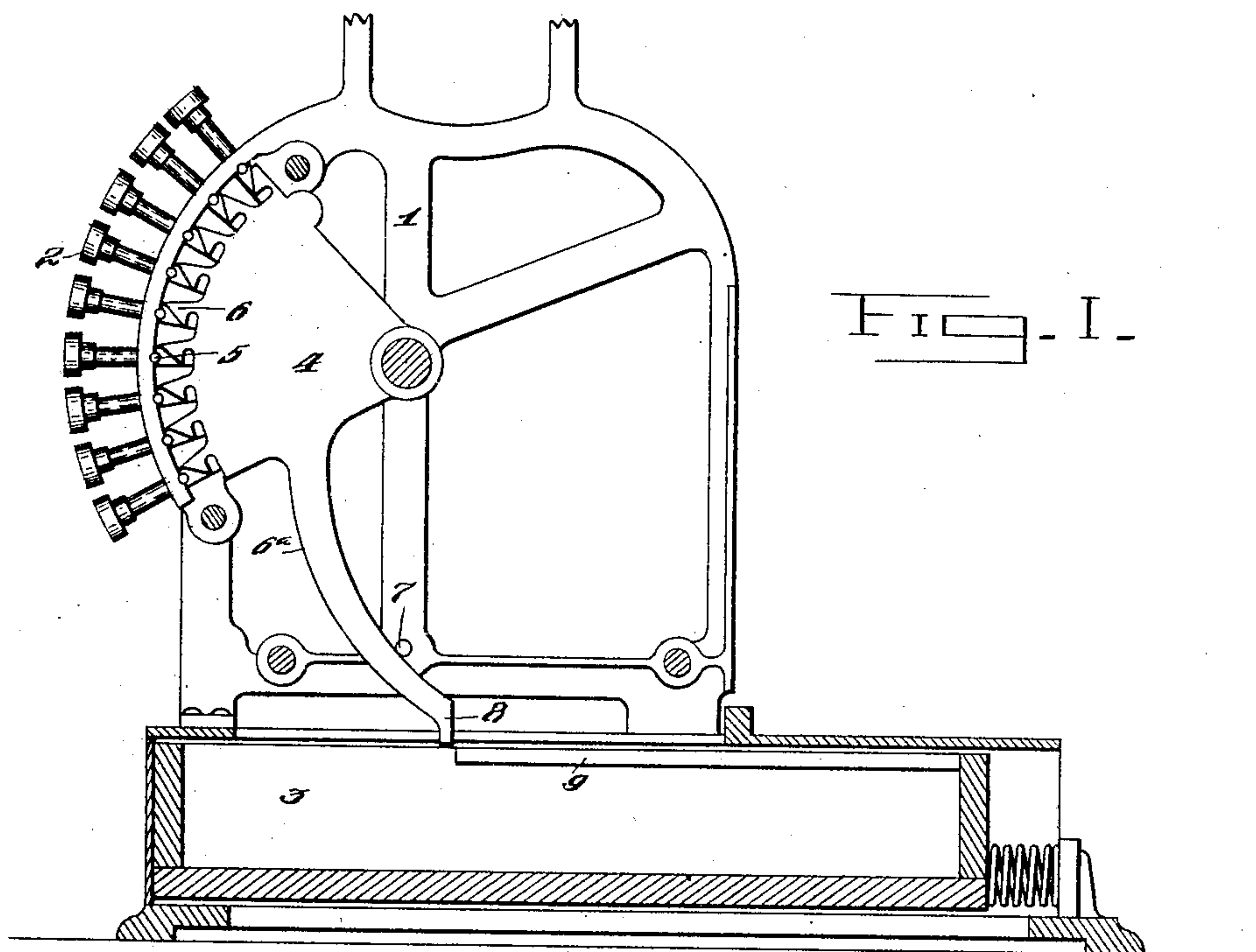
No. 671,951.

Patented Apr. 16, 1901.

J. P. CLEAL.
CASH REGISTER.

(Application filed Mar. 3, 1900.)

(No Model.)



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JOSEPH P. CLEAL, OF DAYTON, OHIO, ASSIGNOR TO THE NATIONAL CASH REGISTER COMPANY, OF JERSEY CITY, NEW JERSEY.

CASH-REGISTER.

SPECIFICATION forming part of Letters Patent No. 671,951, dated April 16, 1901.

Application filed March 3, 1900. Serial No. 7,201. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH P. CLEAL, 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, of which I declare the following to be a full, clear, and exact description.

This invention relates to improvements in cash-registers, and has more particular relation to improvements in registers of the class patented to J. H. McCormick October 27, 1896, No. 570,141.

The object of the invention is to provide improved means for locking the register-keys against operation when the cash-drawer is open.

In the accompanying drawings, forming part of the present specification, Figure 1 represents a vertical section, partly broken away, through a machine embodying my invention, the parts being in their normal position and a number of the elements being omitted for clearness; and Fig. 2 represents a similar view with the cash-drawer partly out of the casing and one of the keys in its depressed position.

In the aforesaid drawings, 1 represents the frame of the machine; 2, the keys; 3, the cash-drawer, and 4 the key-detent and lock.

The keys, cash-drawer, detents, and other parts of the machine are substantially the same as described in the aforesaid patent, and I will therefore refer to said patent for a detail description of the same.

The keys are of course arranged in banks of nine keys each, as is usual in this class of machine; but as the respective banks are similar in their construction and operation I have shown and will describe one only, as this description will suffice for all.

Each of the keys 2, which is radially mounted in the frame 1, is provided with a laterally-projecting pin 5, said pins coöperating with the beveled edges of notched projections 6, formed on a detent 4 in substantially the same manner described in said patent. Said detent 4 is provided with a pendent arm 6^a, the lower end of which projects to the rear of the vertical plane of the detent-journal.

A pin 7, mounted on the frame 1, forms a stop for the arm 6^a, and thus arrests the de-

tent at its normal position, as shown in Fig. 1.

The extreme lower end of the arm 6^a is formed with a nose 8, which coöperates with a horizontal flange 9, mounted in the top of the cash-drawer. When the device is in its normal position, (shown in Fig. 1,) the flange 9 is to the rear of the nose 8, so that the latter may swing downward and forward in an arc the center of which is the journal of the detent. This swinging operation takes place when the pin 5 of an operated key engages one of the bevel-faces of the projections formed on the detent to raise said detent in the usual manner to allow the pin to become seated in its respective notch. After the cash-drawer has been released and partly opened by the regular operation of the machine the flange 9 passes beneath the nose 8, and thus locks the keys by preventing any movement of the arm 6^a and the detent which carries it. As long as the drawer remains open the detent remains locked and is not again unlocked until the drawer has been completely closed, so as to leave the arm 6^a free. The locking of the detents in this manner also prevents the release of any key that may have been previously depressed until the cash-drawer, which operates the registering devices, as described in said patent, is fully operated and returned to its normal position. This structure prevents any fraudulent manipulation of the parts such as might be resorted to in the absence of any such locking means and positively prevents any manipulation or operation of the keys while the cash-drawer remains open.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a cash-register, the combination with a series of keys, of a locking-detent for the same and a cash-drawer directly engaging said detent to hold it in its key-locking position.

2. In a cash-register, the combination with a series of keys provided with projecting pins, of a detent arranged to lock said pins to prevent the depression of the keys, and a cash-drawer directly engaging said detent to hold it in its key-locking position.

3. In a cash-register, the combination with a series of keys, of a locking-detent for the

same, and a cash-drawer directly engaging said detent to prevent its operation when said drawer is open.

4. In a cash-register, the combination with a series of keys, of a cash-drawer, a pivoted key-detent having a locking-arm, and a flange on the cash-drawer cooperating directly with said arm to prevent the operation of the detent when the drawer is open.

5. In a cash-register, the combination with a series of keys, of a detent for said keys having a pendent locking-arm and a cash-drawer cooperating directly with said arm to lock the detent when the drawer is open.

6. In a cash-register, the combination with a series of keys, of a detent arranged to hold an operated key in its depressed position and also lock the other keys from operation, and a cash-drawer cooperating directly with said detent to lock the same when said drawer is open.

7. In a cash-register, the combination with a series of keys, of a locking-detent for said keys, and a cash-drawer having a flange cooperating directly with said detent to lock the same when the drawer is open.

8. In a cash-register, the combination with a series of keys, of a pivoted detent having key-locking projections, a locking-arm mounted on said detent and a cash-drawer engaging said arm to lock the detent when said drawer is open.

9. In a cash-register, the combination with a series of keys having laterally-projecting pins, of a pivoted detent having hook projections with which said pins cooperate, a locking-arm formed on said detent and a cash-drawer cooperating with said arm to lock the detent when the drawer is open.

10. In a cash-register, the combination with a series of keys having pins, of a detent for the same having projections formed with incline faces and also with notches for the reception of the key-pins, a locking arm mounted on said detent and a cash-drawer cooperating with said arm to lock the detent when the drawer is open.

11. In a cash-register, the combination with a series of keys, of a detent for the same, a locking-arm pendent from said detent, and a slidable cash-drawer having a horizontal flange with which said arm cooperates to lock the detent when the drawer is open.

12. In a cash-register, the combination with a series of keys, of a detent for the same, a pendent arm mounted on said detent, a stationary pin for limiting the movement of the arm in one direction and a cash-drawer having a horizontal flange with which said arm cooperates.

13. In a cash-register, the combination with a series of keys, of a cash-drawer, a detent

for the keys having a locking projection arranged to be swung below the plane of operation of the cash-drawer and a projection upon the cash-drawer arranged to be moved into the path of the locking projection of the detent when said cash-drawer is opened.

14. In a cash-register, the combination with a series of keys, having projecting pins, of a detent having a series of V-shaped projections arranged to be engaged by said pins to force the detent upward and a cash-drawer cooperating directly with said detent to prevent said upward movement when the drawer is open.

15. In a cash-register, the combination with a series of keys having projecting pins, of a detent having a series of V-shaped projections arranged to be engaged by said pins to force the detent upward, an arm pendent from said detent and a cash-drawer having a flange cooperating with said arm to lock the detent when said drawer is open.

16. In a cash-register, the combination with a series of keys having projecting pins, of a detent having V-shaped projections formed with retaining-notches and arranged to be engaged by said pins to force the detent upward, and a cash drawer arranged to engage said detent to lock the same when the drawer is open.

17. In a cash-register, the combination with a series of keys, of a locking-detent for the same, a cash-drawer and means directly operated by the cash-drawer for holding the detent in its key-locking position.

18. In a cash-register, the combination with a series of keys having projecting pins, of a detent having projections formed with incline faces which are arranged to be engaged by the pins when the keys are operated and thus actuate the detent, a cash-drawer, and means directly operated by the cash-drawer for holding the detent from movement when said drawer is open.

19. In a cash-register, the combination with a series of keys, of a movable key-arresting member cooperating therewith, and a cash-drawer directly engaging said member to hold it in its key-locking position.

20. In a cash-register, the combination with a series of keys, of a movable member arranged to be operated by the movement of any key and a cash-drawer directly engaging said member to prevent any movement of the same when the drawer is open.

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

JOSEPH P. CLEAL.

Witnesses:

MAX M. RUETH,
IRA BERKSTRESSER.