

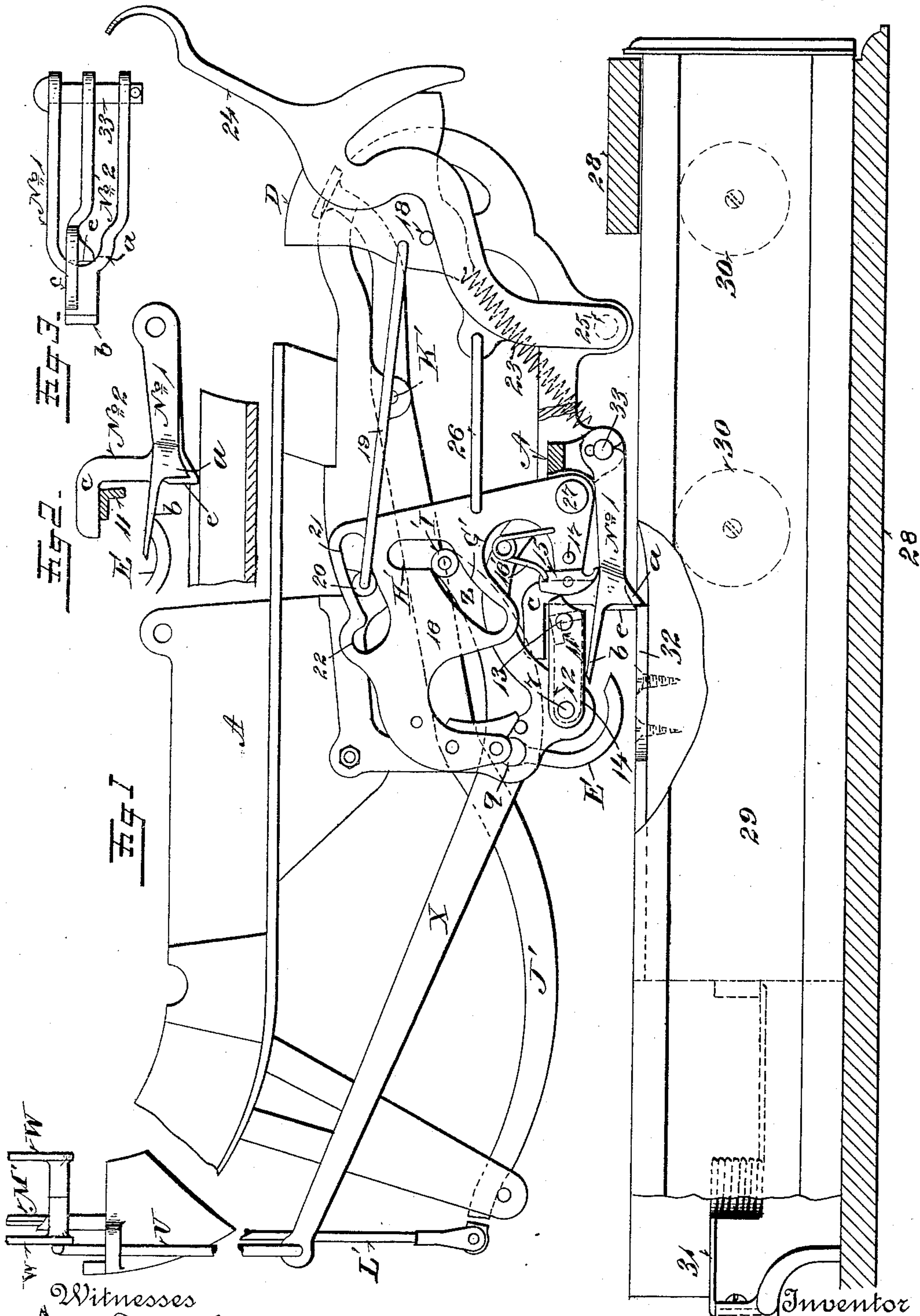
(No Model.)

2 Sheets—Sheet 1.

R. P. THOMPSON.
CASH REGISTER.

No. 547,303.

Patented Oct. 1, 1895.



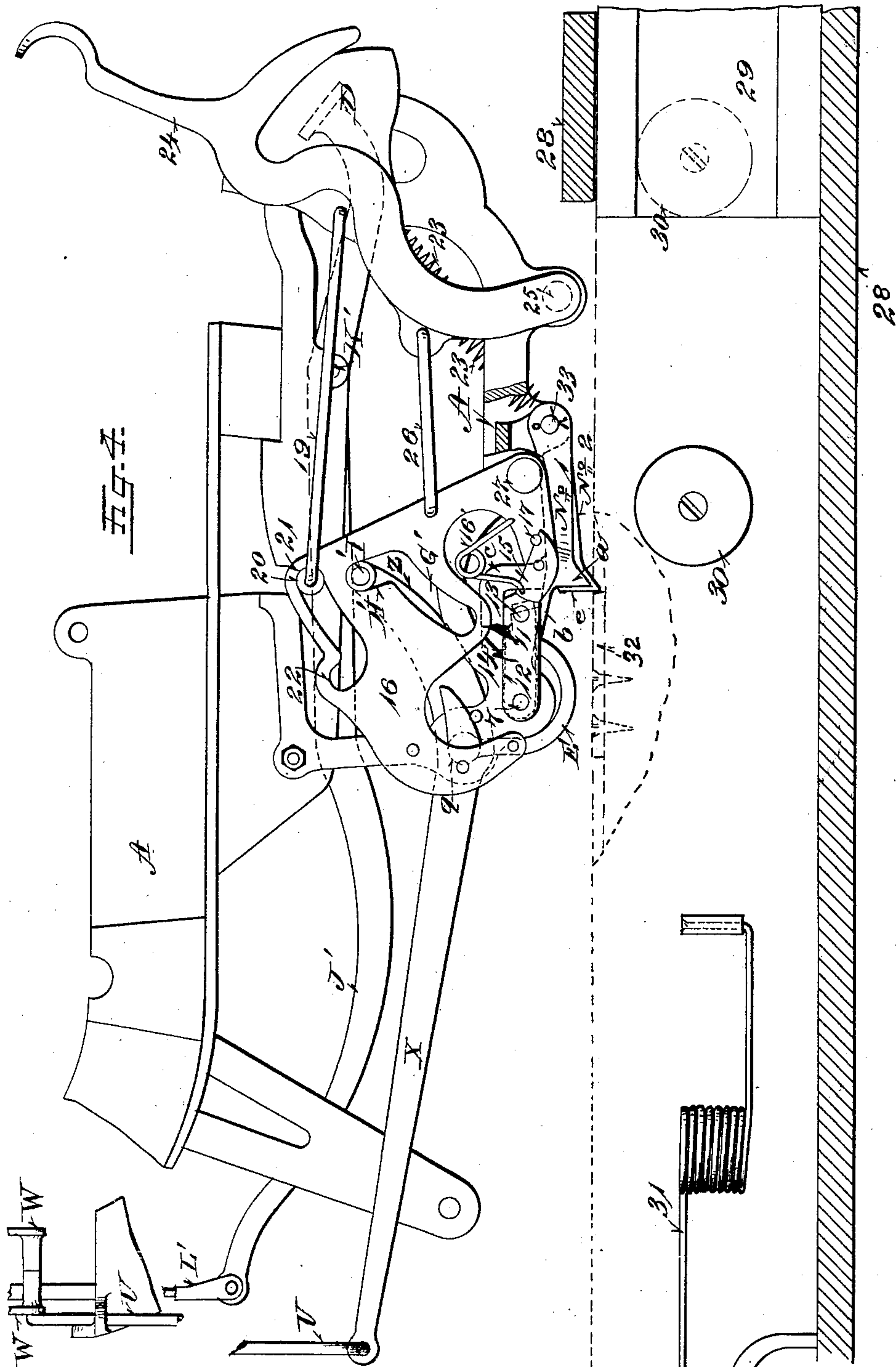
Witnesses
Jas. P. Sawley
W. M. McNaair.

Inventor
By his Attorney Ralph P. Thompson
H. A. Toulmin.

R. P. THOMPSON.
CASH REGISTER.

No. 547,303.

Patented Oct. 1, 1895.



Witnesses
Jas. C. Hawley.
H. M. McHair.

Inventor
By *Byrlis* Attorney *Ralph P. Thompson,*
A. A. Toulmin.

UNITED STATES PATENT OFFICE.

RALPH P. THOMPSON, OF SPRINGFIELD, OHIO.

CASH-REGISTER.

SPECIFICATION forming part of Letters Patent No. 547,303, dated October 1, 1895.

Application filed January 23, 1895. Serial No. 535,937. (No model.)

To all whom it may concern:

Be it known that I, RALPH P. THOMPSON, a citizen of the United States, residing at Springfield, in the county of Clark and State of Ohio, 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 cash-registers, and has special reference to the means employed for locking and releasing the money drawer or receptacle.

These improvements are further particularly designed for use in connection with the cash-register forming the subject-matter of Letters Patent of the United States granted to me January 22, 1895, and numbered 532,924.

The general object of the present improvements is to organize and provide an arrangement of locking and releasing devices for the money-drawer and which will not permit the drawer to open to receive the money received for the sale just made and to permit change to be made (should this be necessary) until after the amount of the sale has been already registered and exhibited by the indicator-card. Thus the clerk is not called upon to carry in his mind, when he approaches the machine, the two ideas of registering the proper amount and the placing of such amount in the drawer, and then, should occasion require, the making of the change. To the contrary, with these improvements he need only carry one of these operations in his mind at a time, because he need not give the drawer any heed until after he registers the amount. He first presses the key and registers the sale, and this done the sale (becoming exposed by the removal of the cancellation-card) is presented to his view, and the drawer is then opened to receive the amount of such sale and to permit the making of the necessary change, should occasion require.

In the accompanying drawings, on which like reference letters and numerals indicate corresponding parts, Figure 1 is a side elevation, with the casing removed, of one form of the machine illustrated in my Letters Patent above referred to, this figure showing the actuating mechanism in normal position, which I select as the position when the cancel-card is in view; Fig. 2, a detailed side elevation of the drawer-locking pawls, the presser-bar,

and lifting-finger; Fig. 3, a plan view of said pawls; and Fig. 4, a similar view to Fig. 1, with the parts in the final or extreme position and the drawer unlocked and out.

A suitable frame A is provided in which to mount the various operating parts. A rod U, at either side of the machine, is guided in the frame A. These rods carry cancel cards or plates W. These cancel-cards are arranged as in my said Letters Patent, and when in an elevated position indicate that the purchase has been canceled. These rods are attached to levers X, one at either side of the machine, mounted on a cross-shaft *q*, carried by the frame A. A curved arm E extends from the shaft *q* and is arranged to lift one of the locking-pawls. On a cross-rod 7, I mount arms 12, one at each side of the machine, (shown in dotted lines in Figs. 1 and 4,) and these arms carry a cross-bar 11, which extends from one side of the machine to the other. This bar 11 has a stud 13, which carries an arm 14, whose other end is hung on the cross-rod 7. This arm 14 is engaged at the proper time by a trip 15, carried by the cam-plate 16. This trip 15 is actuated by a spring 16' and stopped by a stop 17. The trip 15 is shown disengaged from the arm 14 in Fig. 1 and engaged with the arm 14 in Fig. 4, so that said trip will lift said arm and accordingly lift the cross-bar 11.

The letter D designates the cover, which is pivoted to the frame A at 18 and actuated by a handle 24, also pivoted to the frame at 25. The cover is actuated by the handle through the pitman 19, having an antifriction-roller 20, fitting a slot 21, having a branch 22 in the cam-plate 16. A spring 23, connected to the cover and suitably secured to the frame, acts to assist in returning the cover to closed position.

The handle 24 is connected by a pitman 26 to the cam-plate 16, while the plate itself is mounted upon a pivot 27, supported by the main frame. Thus it will be understood that when the handle is operated motion is transmitted to the cam-plate and that the latter will be moved to the different required positions. The cam 16 is also provided with a slot H', with a branch G'. Within this slot is an antifriction-roller I', mounted on the inner arm Z of one of the levers X. Thus when the cam-plate 16 is actuated it raises and lowers the rods U through the levers X and the

extension Z of one of them, so as to present the cancel-cards to view, as when the cam-plate is in the position shown in Fig. 1, and so as to allow the cancel-cards to drop out of view when the cam-plate is in the position shown in Fig. 4.

At J', I have illustrated the keys, which are in series across the machine, being pivoted at K', with their finger ends under the cover D and their rear ends supplied with rods L', to which indicators M' are attached. There are various details that operate to release the keys when in a depressed position at their finger ends, and which prevent the cover from opening while the keys are in such position and the indicators displayed; but these details do not enter into an understanding of the present improvements.

In the lower part of the casing 28 I place a money drawer or receptacle 29, mounted on antifrictional rollers 30 to make it travel easily. A spring 31 tends to force this drawer out all the time. At 32 I provide the drawer with a stop or plate, which fits against the locking-pawls. It is here that my present improvements enter. There are two of these pawls and both are mounted on the pin or bolt 33, carried by the main frame. I designate these pawls No. 1 and No. 2. No. 1 is in the form of two bars pivoted on the bolt 33 and has a lug a and a prong b. Pawl No. 2 is in the form of a single bar pivoted on the bolt 33 and having a hook-like projection c and a lug e.

Pawl No. 1 holds the drawer in when the machine is in the position shown in Fig. 1, which I call the "normal" position, because in such position the cancel-card stands displayed. Accordingly, if the operator takes hold of the handle 24 and draws it toward him he will move the cam-plate 16 and thence open the cover D, so that he may put his finger upon the key corresponding with the amount of the sale as made and depress such key to exhibit the indicator it carries. This done, he will return the handle 24 and cover under the influence of the spring 23 until the same reaches the position shown in Fig. 4. This done, the cam-plate 16 will have moved (by the action of the spring 23 and the pitman 26) to the position shown in Fig. 4, thereby permitting the antifriction-roller I' to pass up into the slot H', and thus lower the cancel-card. This will cause the shaft q to revolve slightly and press the curved arm E against the finger b of pawl No. 1, raising it and releasing the drawer, which by the action of the spring is then thrown open. It will now be observed that the drawer was not released until after the sale had been registered and the indicator-card exposed by the descent of the cancel-card, so that in the interval of time between registering the sale and the moment when the arm E by the descent of the cancel-card reached the finger b the operator turned his attention from the act of registering the proper amount to that

of putting the cash in the drawer, and making change, if necessary. Now, having done the latter, he pushes the drawer in, the parts having assumed the position shown in Fig. 4. Pawl No. 1 is now suspended by the finger b, resting upon the hook E'; but pawl No. 2, having had the plate 32 slid under it, has dropped down in front of such plate and locked the drawer in closed position. Now, when the next sale is made the operator again takes hold of the handle 24, and drawing it from the position shown in Fig. 4, where he last left it, the cam-plate 16 operates the trip 15 and causes the latter to lift the arm 14, and thence the cross-bar 11, which latter engages the hook c and lifts pawl No. 2 above the plate 32. Slightly preceding this movement of pawl No. 2, however, the cam-plate, acting on the extension Z of the lever X, removed the hook E' from under the finger b and let pawl No. 1 down in front of the plate 32. Pawl No. 1, being about a thirty-second of an inch shorter than pawl No. 2, permitted the drawer to move out that distance, as shown in Fig. 1.

In Fig. 2 I have shown both pawls and the receptacle in the position they occupy when the receptacle has been pushed in after depositing money in it. This presupposes that the sale just made is standing exhibited by the indicator being exposed and that the cancel-levers are depressed. Hence when the cam-plate is next operated the cross-bar 11 will lift pawl No. 2 and allow the receptacle to make its initial movement toward opening, being arrested by pawl No. 1, which is permitted to drop down by the cam-plate acting to lift the cancel-levers and withdraw the arm E from under the finger b.

Having thus fully 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 cash receptacle, of two locking pawls therefor, pawl No. 1 holding it locked when the parts are in normal position, and pawl No. 2 locking the receptacle when it is forced in after being released, a cancel card lever, means to depress it and thereby operate pawl No. 1 to release the receptacle, and means to operate pawl No. 2 to initially release the receptacle.

2. In a cash register, the combination with a cash receptacle, of two pawls to lock it, one longer than the other, cancel card levers, an arm projecting therefrom, a cam plate to operate said levers and arm, means to operate said cam plate, a pivoted arm operated by said cam plate, the shorter pawl having a finger which is lifted by said arm, and the longer pawl having a hook which is lifted by the pivoted arm.

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

RALPH P. THOMPSON.

Witnesses:

OLIVER H. MILLER,
W. M. MCNAIR.