(No Model.) 2 Sheets—Sheet 1.

F. H. SEYMOUR.

CASH REGISTER AND INDICATOR.

No. 551,051. Patented Dec. 10, 1895.

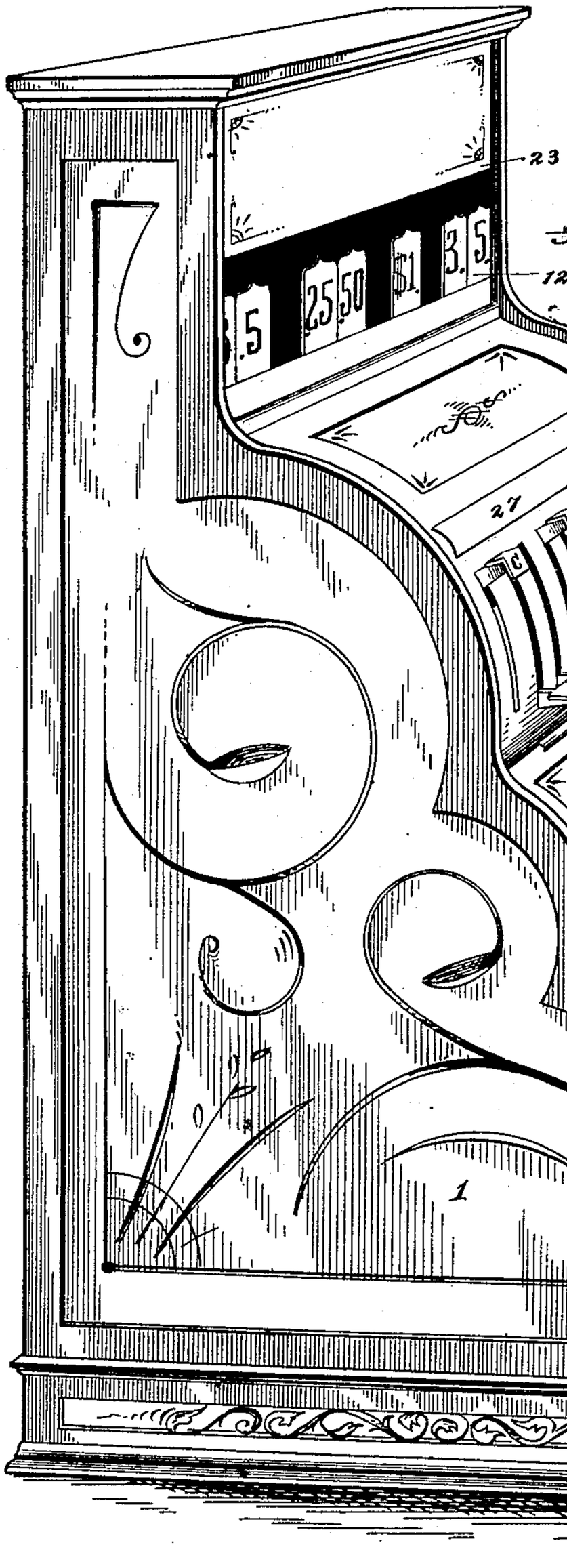

Fig. 1.

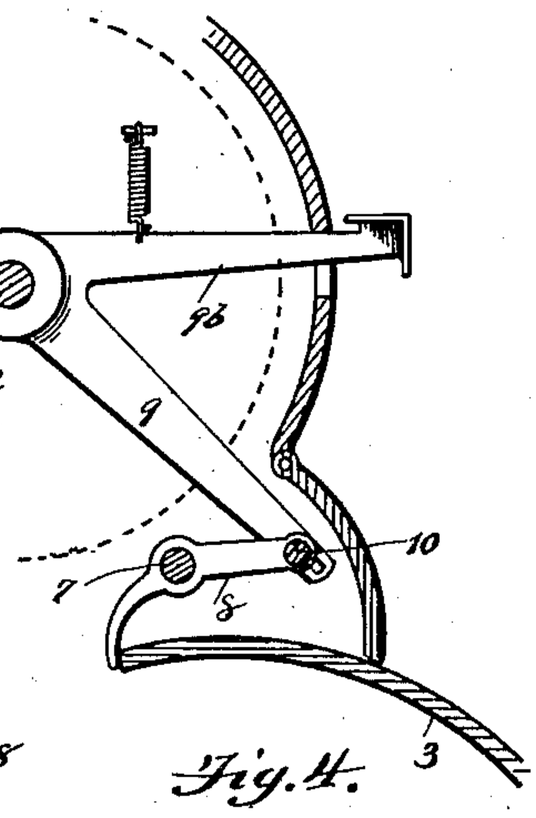

Fig. 4.

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(No Model.) 2 Sheets—Sheet 2.

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Fig. 2.

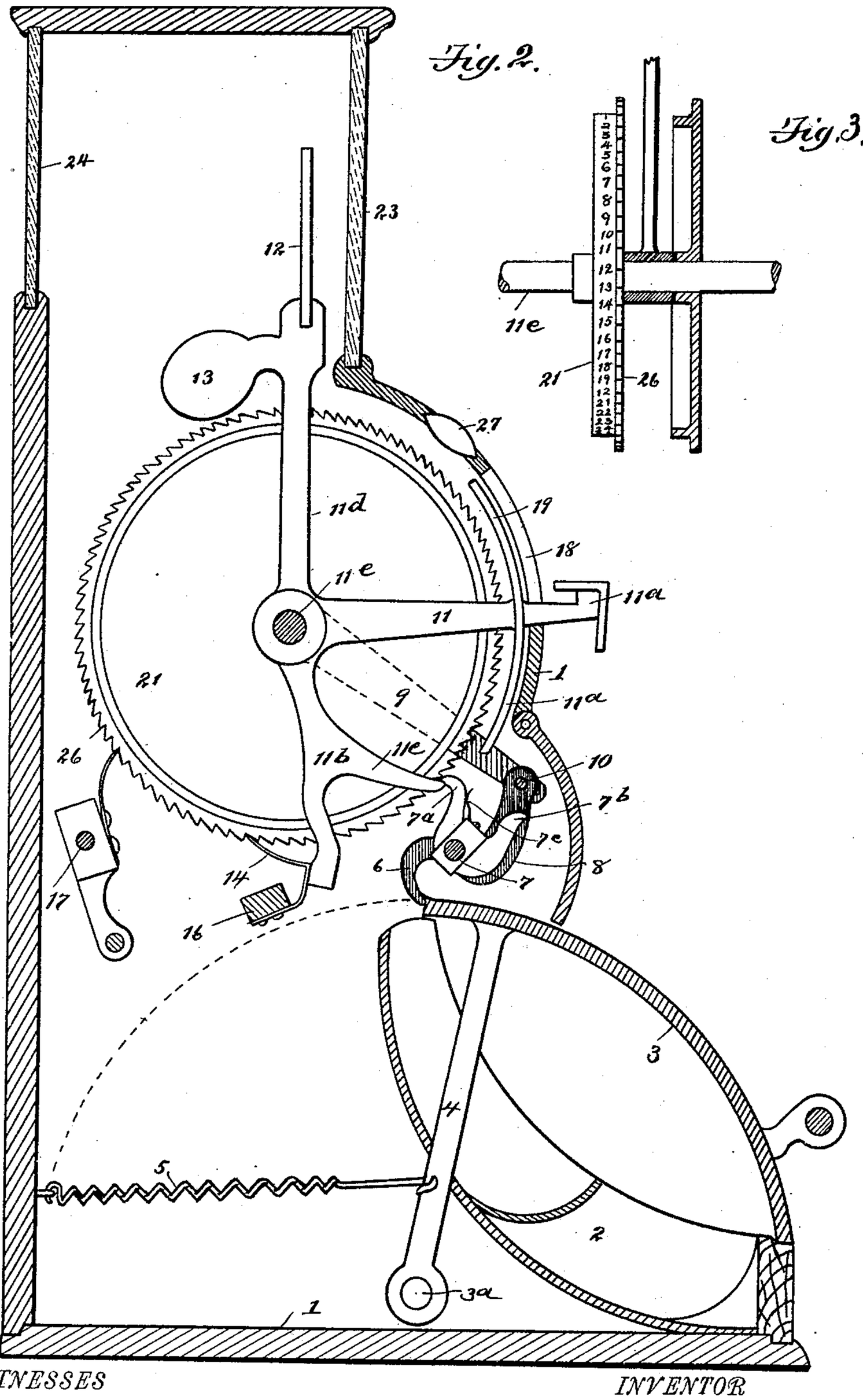

Fig. 3.

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UNITED STATES PATENT OFFICE.

FREDERICK H. SEYMOUR, OF DETROIT, MICHIGAN, ASSIGNOR TO THE SEYMOUR CASH REGISTER COMPANY, LIMITED, OF SAME PLACE.

CASH REGISTER AND INDICATOR.

SPECIFICATION forming part of Letters Patent No. 551,051, dated December 10, 1895.

Application filed March 30, 1894. Serial No. 505,717. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK H. SEYMOUR, a citizen of the United States, residing at Detroit, county of Wayne, State of Michigan, have invented a certain new and useful Improvement in Cash-Registers; and I declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

This invention relates to cash-registers, and has for its object improvements in that class of cash-registers in which a partial register is kept of the sales which are made from time to time, each one of the keys employed in connection with the register being provided with its individual register-wheel, upon which is kept a register of the number of times which that particular key has been actuated until the capacity of the register-wheel has been exhausted. It is then necessary to reset the register-wheel, and it is the usual custom, instead of continuing to employ the machine until the wheels connected with each individual key have been turned completely around and their capacity for registering has been exhausted, to reset the entire machine from time to time—say as often as once a day—taking off and making suitable memoranda of the registers of the several register-wheels at the time that the machine is reset.

My improvements relate to means for turning the register-wheel a given or definite distance each time the key belonging to the register-wheel is actuated and means for reading the divisions of figures upon the register-wheel, which I make so small that the figures could not be easily read without some assistance of a character similar to that which I employ.

In the drawings, Figure 1 represents my cash-register in perspective. Fig. 2 is a sectional elevation. Fig. 3 is a front elevation of one registering-wheel and a sectional elevation of an adjacent registering-wheel. Fig. 4 is an end elevation of the readjusting-lever, by means of which tablets are dropped or thrown from the place of display and the cover of the cash-till is thrown open or released and allowed to be thrown open.

1 indicates the main frame made in the form commonly used for machines of this character.

2 indicates the money-till, which is made, preferably, of two or more compartments, placed obliquely the one above another and at the front of the machine under a curved till-cover 3, which rotates around a central bearing 3^a, to which it is held by a radial arm 4.

5 indicates a spring secured at one end to the casing 1 and at the other end to the radial arm 4 and arranged to be placed under tension when the till-cover is closed in the position indicated in Fig. 2.

11 indicates the key-lever, which is formed with a central bearing on a rod 11^c, common to all the key-levers, and which has several branches, one of which, 11^b, reaches downward and extends beyond the periphery of the register-wheel 21 to a position to engage with the pawl 14, that engages with the teeth on the ratchet-rim 26 of the register-wheel 21. A second branch, 11^d, reaches upward and carries at its upper extremity the tablet 12. A third branch forks from the branch 11^b and extends beyond the ratchet-rim 26 to a position to engage with a holding-pawl which is supported on a shaft 7 and one end of which, 7^a, is pushed by a spring 7^c into the path of the branch 11^c of the key-lever. A second branch, 7^b, of the pawl lies in the path of a readjusting-bar 10, that extends across the case in front of the register-wheels and is actuated by the readjusting-arm. At each end of the case, swinging on the central shaft 11^c, is a forked arm, one such arm, 9, being shown in Fig. 2. Between the two arms 9 extends the readjusting-bar 10, and each end of the readjusting-bar 10 engages in a slot in the arm 9 in position such that it may itself swing with the rock-arm 8, to which the readjusting-bar 10 is secured on the shaft 7. The opposite branch 6 of the rock-arm 8 swings into a position behind the upper and inner end of the till-cover 3 and effectually locks the till-cover over the till until the bar

10 has been depressed by the readjusting-lever and the branch 6 has been lifted to a corresponding degree out of engagement with the rear of the till-cover. When this has been done, the till-cover is free to rock backward and under the force of the spring 5 is pulled backward and the till is uncovered.

In front of the register-wheels, which are journaled on the central shaft 11^c, is a portion of the case 1, curved concentric, or substantially concentric, with the shaft 11^c and provided at intervals with vertical slots 18, through which reach outward the branches 11^a of the keys, and each branch 11^a terminates with the properly-numbered key-button. Adjacent to each key and journaled on the same shaft with the keys are a number of register-wheels, the number being equal to the number of the keys, and each register-wheel is provided with a ratchet-rim 26. Across the case, from one end to the other, parallel with the shaft 11^c, are two bars 16 and 17, one of which, 16, supports a driving-pawl 14, that lies in the path of the swinging branch 11^b of the key and in position to engage with the branch 11^b for a short portion at the lowest part of the stroke of the key when the key is depressed. To the other parallel bar 17 are secured a number of holding-pawls that prevent the return movement of the register-wheel 21 after it has been driven forward by the engagement between the pawl 14 and the arm 11^b.

Across the case and in the frame immediately in front of the register-wheels and removed from it so far only as to give it the proper focal distance is a magnifying-glass 27, having its surfaces made cylindrical and of proper radius to enable the user of the machine to see the figures of the register-wheel at the focal point underneath this magnifying-glass. The upper part of the case is furnished both at its front and rear sides with glass walls 23 and 24, through which the tablet 12 can be seen. The slot 18, both above and below the key-bar 11, is guarded by a wing 19 19^a, that projects on the one side upward and on the other side downward from the key-lever 11.

In operating this machine the key-button is depressed, which, at once rotating the key-lever, brings the tablet 12 to the display-opening 23 and in the latter part of its stroke brings the arm 11^b into engagement with the pawl 14 and, acting through the pawl 14, pushes the register-wheel one notch forward, bringing into the focus of the magnifying-glass 27 a number of one greater numerical value than the one that had been previously exposed under the magnifying-glass. It also swings the branch 11^c of the key-lever under the holding end 7^a of the pawl, and thus the tablet is retained at the point of display and the register is actuated. The parts will remain in position thus assumed until the readjusting-lever 9 has been depressed. This readjusting-lever is provided with a branch 9^b, that extends out through a slot in the case, and presents an appearance similar in all respects to the protruding ends of the key-levers. The depression of the readjusting-lever brings the readjusting-bar 10 downward until the readjusting-bar 10 engages with the free ends 7^b of the key-holding pawls and rocks the key-holding pawls out of engagement with the branch 11^c of the key-lever. The tablet immediately falls away from the display-opening because of the counter-weight 13, which is heavier than the opposing forces that tend to hold the tablet in its upright position. Accompanying the depression of the registering-lever 10 the rock-arm 8 is depressed, and the locking branch 6 of this rock-arm is lifted out of engagement with the till-cover and the till-cover opens, as has already been explained.

What I claim is—

1. In a cash register, the combination of an inclosing case a swinging key lever, a register wheel provided with a ratchet rim, a single arbor common to said key lever and register wheel, a driving pawl fixed with relation to the case and adapted to be engaged by the key lever and to engage the register wheel, a key lever holding pawl, and a readjusting lever to disengage said key lever holding pawl, substantially as described.

2. In a cash register, the combination of an inclosing case, a key and registering tablet, a register wheel provided with a ratchet rim, a single arbor common to both said key and registering tablet and register wheel, an operating pawl fixed with relation to the case and adapted to be engaged by the key lever and to engage the register wheel whereby said register wheel is made to rotate, a key lever holding pawl journaled on an independent arbor and having one end held in the path of a projecting arm from said key lever, said projecting arm adapted to latch with said key lever holding pawl whereby said tablet is held in an exposed position, a readjusting key lever and horizontal bar connected therewith, adapted to engage the free end of said key lever holding pawl whereby the exposed tablet is allowed to drop out of view, and a rocking arm actuated by said readjusting lever to engage and lock the till cover, substantially as and for the purpose described.

3. In a cash register, the combination of an inclosing case, a key and indicating tablet connected therewith, a register wheel, an independent actuating pawl fixed with relation to the case and adapted to actuate said register wheel and to be itself actuated by the key lever, a holding pawl adapted to hold the key and its tablet in an elevated position, and

a readjusting lever and bar adapted to disconnect the key levers and holding pawls, substantially as described.

4. In a cash register, the combination of keys, tablets, register wheels and readjusting lever, a single arbor common to all said keys, tablets, register wheels and readjusting lever, means for locking individual tablets in an elevated position, and means for releasing all elevated tablets together, substantially as and for the purposes specified.

In testimony whereof I sign this specification in the presence of two witnesses.

FREDERICK H. SEYMOUR.

Witnesses:
CHARLES F. BURTON,
FRANCES CLOUGH.