

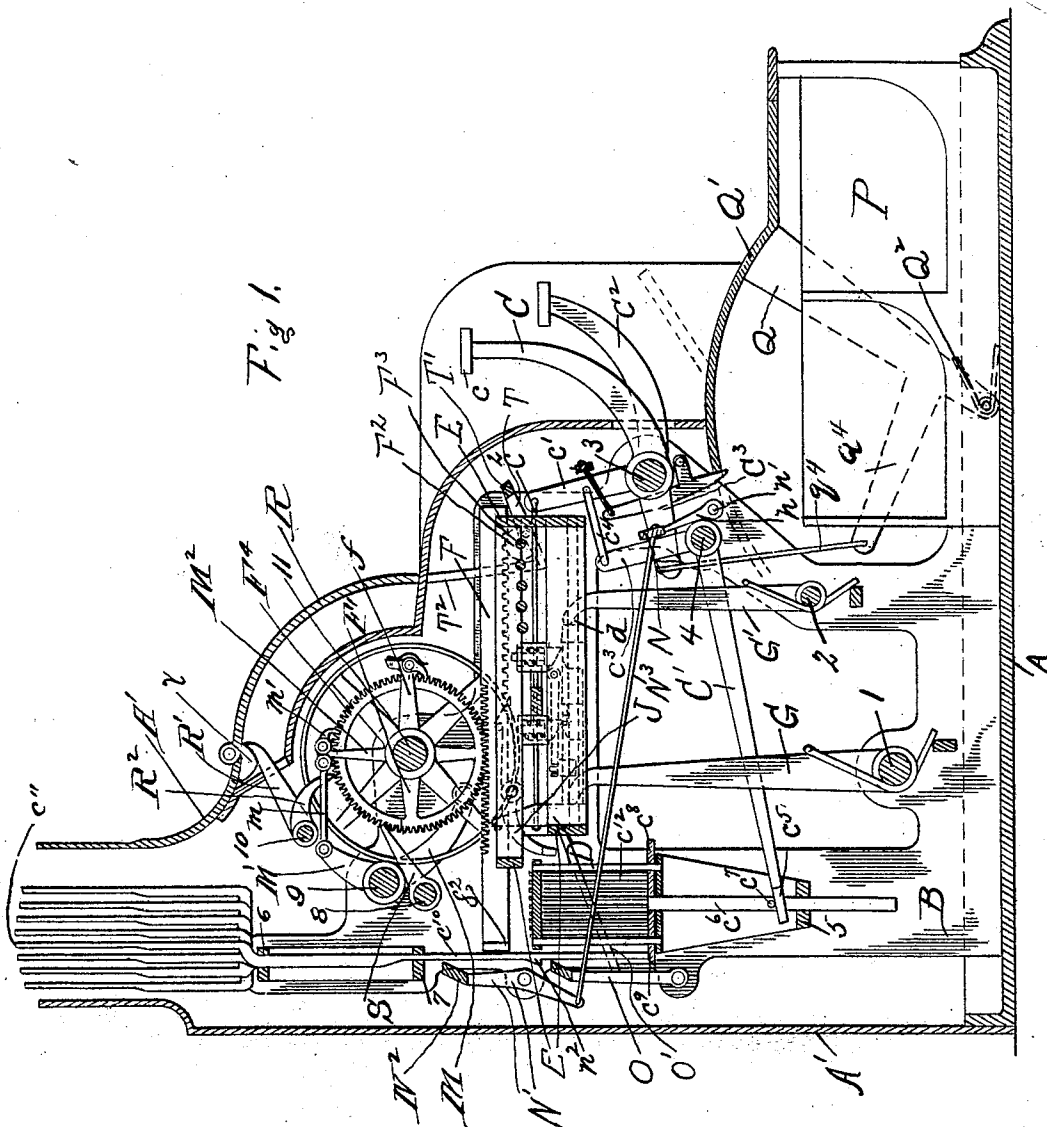
(No Model.)

4 Sheets—Sheet 1.

H. M. NEER.
CASH REGISTER.

No. 518,892.

Patented Apr. 24, 1894.



Witnesses:

Chas. Burnap
Jas. H. Mill

Inventor:

By Harry M. Ner
Walter H. Chamberlain
Attys.

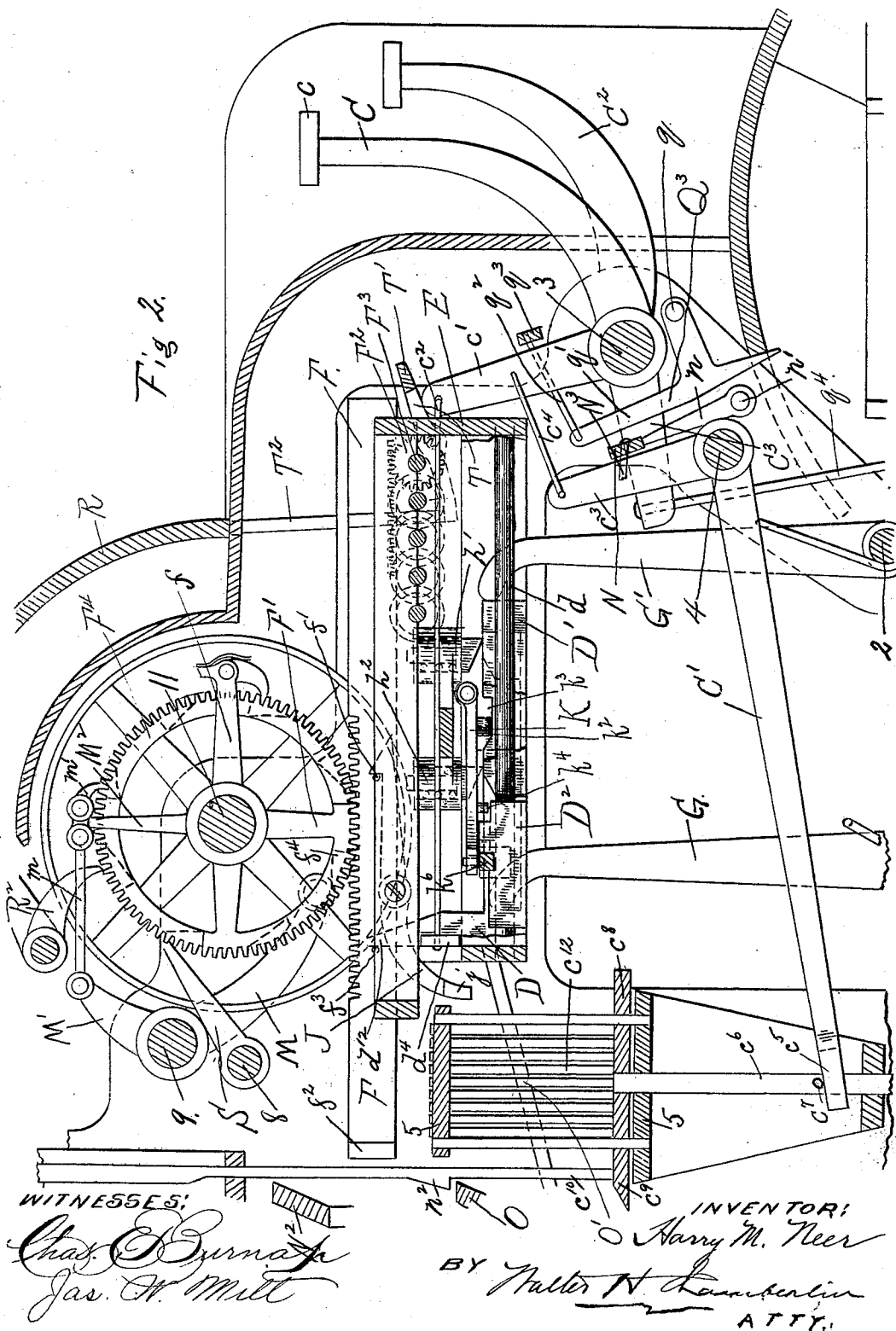
(No Model.)

4 Sheets—Sheet 2.

H. M. NEER.
CASH REGISTER.

No. 518,892.

Patented Apr. 24, 1894.



WITNESSES:

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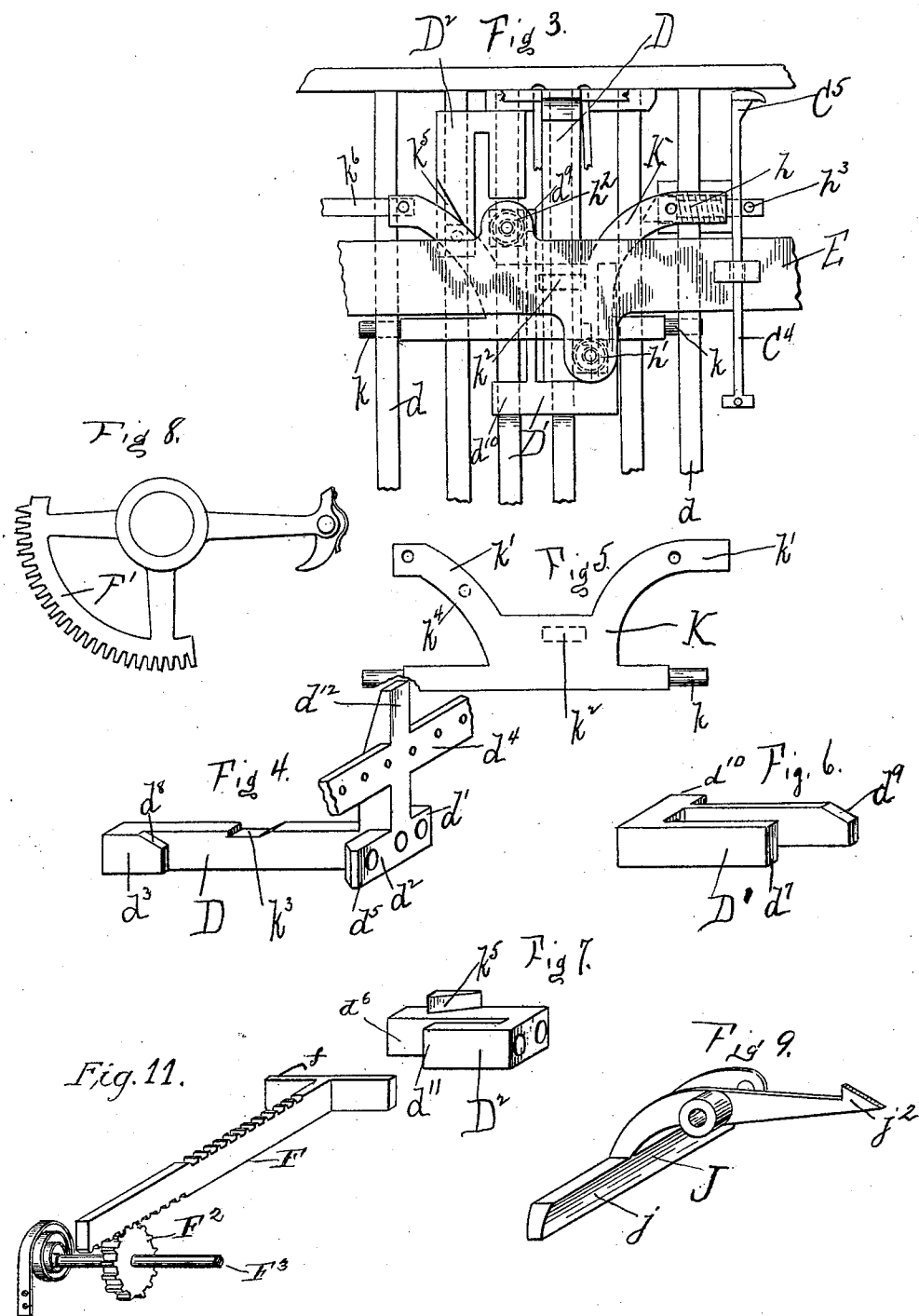
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4 Sheets—Sheet 3.

H. M. NEER.
CASH REGISTER.

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Patented Apr. 24, 1894.



WITNESSES:

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Jas. W. Mill

INVENTOR:

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BY Walter H. Chamberlain ATTY.

(No Model.)

4 Sheets—Sheet 4.

H. M. NEER.
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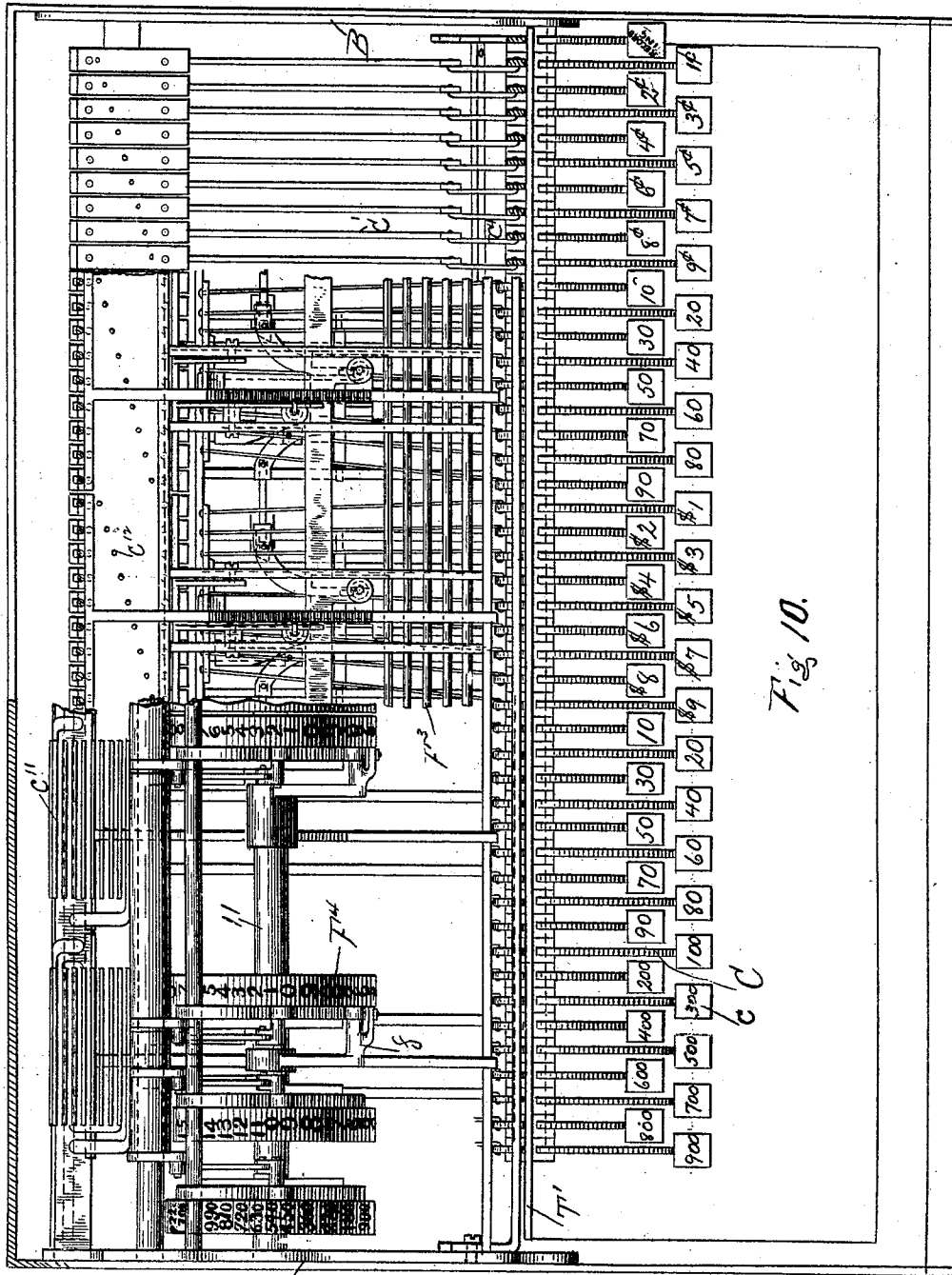


Fig. 10.

WITNESSES:

Chas. E. Burnap
Jas. W. Mill

BY

INVENTOR:

Harry M. Neer
Walter H. Chamberlin
ATTY.

UNITED STATES PATENT OFFICE.

HARRY M. NEER, OF CHICAGO, ILLINOIS, ASSIGNOR OF TWO-THIRDS TO
SAMUEL COCHRAN, OF SAME PLACE.

CASH-REGISTER.

SPECIFICATION forming part of Letters Patent No. 518,892, dated April 24, 1894.

Application filed March 30, 1893. Serial No. 468,313. (No model.)

To all whom it may concern:

Be it known that I, HARRY M. NEER, a citizen of the United States, residing at Chicago, county of Cook, State of Illinois, have invented
5 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
10 the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention has for its object the production of a cash register and indicator of that
15 class in which several series of keys are provided; one series representing units; one series tens; one series hundreds, &c. In the machine which I have here illustrated I have provided enough series or banks of keys so
20 that any amount from nine hundred and ninety-nine dollars and ninety-nine cents to one cent may be recorded, indicated, and the amount added to the previous registration.

The invention is more particularly an improvement upon the patents issued to me
25 June 7, 1892, No. 476,295; January 24, 1893, No. 490,304; January 31, 1893, No. 491,020.

The improvements in the present application relate more particularly to the mechanism for operating the adding wheels; to the
30 means for locking the adding wheels when the machine is opened to read them; in the cash holding mechanism and the mechanism for operating the same; and in various details
35 of construction hereinafter more particularly described and claimed.

In the drawings Figure 1 is a vertical section through the machine. Fig. 2 is an enlarged view of a portion of the apparatus
40 shown in Fig. 1. Fig. 3 is a plan view of a portion of the mechanism in detail. Figs. 4, 5, 6, 7, 8, and 9 are details of parts. Fig. 10 is a general plan view of the machine. Fig. 11 is a detail of the rack bar.

45 In carrying out the invention A Fig. 1 represents the base of the case by means of which the mechanism is supported and A' the case inclosing the mechanism.

To avoid confusion in the specification I
50 will term that portion of the mechanism where

the keys are located the front of the machine, and the opposite side the back, and hereinafter in speaking of the motion of the various parts the direction of the motion will be indicated by an allusion to either backward, 55 frontward, or endwise. At each end of the machine is a suitable plate or frame B which supports the operative parts of the machine, the two plates being connected by several rods or braces shown at 1, 2, 3, 4, 5, 6, 7, 8, 9, 60 10, and 11. These several rods and braces form supports or journals, &c., for the movable parts. Journaled upon the rod 3 are the keys C. These keys are shaped somewhat as a bell crank lever, one arm being curved and provided on the end with the flattened portion 65 *c* while the other arm *c'* is connected by a wire *c²* to a sliding piece which I will term a cross head or block D shown in detail in Fig. 4. This cross head is supported upon ways shown in dotted lines at *d*, Fig. 1, and shown also in Fig. 70 3. These ways extend from front to rear of the machine and are supported by the frame E which extends from end to end of the machine. The crosshead above mentioned is 75 shown in detail in Fig. 4 and it will be observed that it is of a peculiar shape and is provided with lugs *d'*, *d²*, *d³*, with the cross piece *d⁴*. It is through this cross piece that each of the wires leading from the keys passes. 80 The wire is headed beyond the cross piece and passes loosely through the orifice therein so that when one key is depressed and the cross piece and its accompanying block move forward the other wires will remain station- 85 ary, the cross piece sliding on the wires. Located also on the ways *d*, but in front of the crosshead D are the blocks *D'*, *D²*, also of a peculiar shape as shown in detail in Figs. 6 and 7 respectively. 90

Journaled upon the rod 4 (Fig. 1) is a bell crank lever *C'*, the short arm *c³* being connected with the arm *c'* by the connection *c⁴*, while the end of the long arm *c⁵* is bifurcated and embraces an upright strip *c⁶*, the bifurcated end of the lever *c'* bearing against the pin *c⁷*. Thus a depression of the key C operates to elevate the end of the arm *c⁵*. The strip *c⁶* is supported and held in place by the frame 5, and on the upper end of the strip is 100

a cross strip c^8 . Resting on the end c^9 of this cross strip is a tablet stem c^{10} carrying a tablet c^{11} , the latter having on its face the amount corresponding with the key to which it is connected. As above explained the keys are divided into series or banks of nine keys each, and the mechanism which I have thus far described is duplicated in each of the series, there being five series in all. It will now be understood that there being nine keys in each series there must be nine tablets in each series and there must also be nine of the cross pieces c^8 in each series. Projecting upwardly from each cross piece is a rod or finger c^{12} . The rod or finger on each successive cross-piece is located in advance of the one next adjacent so that the rods or fingers are arranged in a diagonal line. These rods or fingers c^{12} are similar in construction to those in my previous patent and need not further be explained. Suffice to say that they limit the movement of the adding mechanism as will be hereinafter explained.

Supported in recesses in the upper edge of the frame E and sliding freely from front to rear of the machine is a rack bar F. Journaled on the rod 11 (Fig. 1) is a gear segment F' shown in detail in Fig. 8. This segment meshes with the rack bar F and journaled on the rod 11 adjacent to the segment is a wheel F⁴. As will be seen there is an arm f extending from the sleeve or hub of the gear segment to a point adjacent to the toothed periphery of the wheel F⁴. This arm is provided with a spring impelled pawl which engages the peripheral teeth of the latter. It will thus be seen that when the rack bar moves forward as will be hereinafter explained the pawl will, through the segment, be caused to move along the teeth which it engages a distance corresponding with the movement of the rack bar.

Journaled on the rod 1 is a spring impelled arm or lever G, the upper end of which bears against the block D. Journaled upon the rod 2 is a spring impelled rod or lever G' which bears upon the block D'. The tendency of these arms G, G' is to return the parts to their normal position when they are released as hereinafter explained. Supported on the frame E (Fig. 3) is a horizontally moving spring impelled catch h adapted when the block D is moved forward to engage the same at the shoulder d^5 and hold the block from being returned by the lever G until the catch is intentionally withdrawn. As before explained and as shown in Fig. 3 the blocks D', D² are in advance of the block D. Supported on the ways d are vertically movable spring impelled catches h' , h^2 , the catch h^2 engaging the shoulder d^6 Fig. 7 on the block D² while the catch h' engages the shoulder d^7 on the block D'. The under surface of the rack bar F is provided with a series of cogs which engage a corresponding pinion F², the latter containing a suitable spring to cause it to revolve, and mounted upon a rod F³ that extends from end to end of the machine. There are of

course five of these pinions corresponding with the five rack bars and they are journaled each upon a separate rod F³.

Pivoted in the ways d is a lever J shown in detail in Fig. 9, having a horizontal portion j which extends the entire width of the series of keys just in advance of the fingers c^2 and in the path of each cross piece c^8 as it is elevated. The opposite end of the lever J is provided with a beveled catch j^3 adapted to engage a pin f'' on the rack bar. Thus the elevation of the horizontal portion j will disengage the beveled catch from the rack bar and allow the latter to move forward.

The operation of the mechanism in each separate series or banks is as follows: One of the keys in the series is depressed and through the wire c^2 the cross head or block D is drawn forward, and with it the blocks D', D², the beveled catch h engaging the block D while the beveled catches h' , h^2 engage the blocks D', D². This same depression of the key has through the bell crank lever C', elevated the cross piece c^8 , which, striking the portion j of the lever J has disengaged the latter from the rack bar and allowed it to be drawn forward by the pinion F². The rear end of the rack bar has a cross head or T f^2 extending across the series and this cross piece comes in contact with the finger c^{12} that has been elevated by the elevation of the cross piece c^8 . The movement of the rack bar is thus limited it being only the distance corresponding with the number of teeth represented by the bar on the key. That is to say if key No. 5 were struck the finger c^{12} connected therewith would be elevated and the rack bar allowed to move forward a distance corresponding to five teeth on the rack bar and on the wheel F⁴. The same elevation of the cross piece c^8 has forced up the tablet stem resting thereon and elevated the tablet. The forward movement of the rack bar has caused the segment to move the pawl f the number of teeth on the wheel F⁴ corresponding with the key that has been struck. Thus the depression of the key has displayed the tablet and has set the mechanism for registering the amount ready to be operated when the mechanism is released. Of course if one key of each series has been struck there will be five tablets exposed and each one of the rack bars will have moved forward a distance corresponding with the number of the key in its particular series. This same forward movement has compressed the springs which actuate the levers G, G' and they are ready to act upon the mechanism to return it to its normal position. Located at the right hand end of the machine, or in other words, at that end of the machine adjacent to the bank or series of keys representing the denominations of cents is a key C² shaped as the keys C except that it has an additional arm C³. The arm on the key C² which corresponds to the arm c' of the key C is connected by a wire or other connection with the rod C¹ sliding in the frame E. At

the end this rod is provided with a beveled projection C^3 , which, when the rod is drawn forward comes to a bearing against the pin h^3 on the catch h and withdraws the latter. This disengages the shoulder d^3 on the block D and allows the block to be returned to its normal position by the lever G. On the projection d^3 (Fig. 4) is a beveled corner d^8 . As the block D returns to its normal position the beveled corner strikes the vertically movable dog that has engaged the block D' at the shoulder d^7 and raises it thus freeing the block D'. On this block D' is a beveled end d^9 and as the block D' is being returned to its normal position by the lever G', this beveled end strikes the spring impelled catch h^2 and causes it to release the block D², the shoulder d^{11} of the block D² striking the shoulder d^{11} of the block D² and forcing the latter back to its normal position. Journaled at k in the ways d is a piece K shown in detail in Fig. 5. This piece is journaled with circular bearings so that the arms k' may be tilted up slightly and it is also journaled in such a manner that it may have a slight movement endwise of the machine. On the under surface of this piece K is a projection k^2 which, when the parts are in their normal position rests in the recess k^3 in the block D (Fig. 4). On the under surface of this piece is also a pin k^4 which projects downward. On the block D² is a beveled projection k^5 . As will be seen when the block D is drawn forward the downward projection k^2 will be caused to ride out of the recess k^3 and thus will tend to raise the piece slightly and also to elevate the arms k' . This elevation will cause the pin k^4 to be raised above the path of the projection k^5 on the block D² but as the block returns to its normal position the beveled projection k^5 will strike the pin k^4 and cause the piece K to move endwise. The arm k' is provided in its end with an orifice which engages a pin on the bar k^6 when the block D is in its normal position and the projection k^2 is resting in the recess k^3 . The connection k^6 is engaged by the catch h on the next adjacent series. Now as will be seen when the key C² is depressed and through the bar C⁴ the catch h of the first or cents series is released the block D will be allowed to return to its normal position, provided a registration has been made in the cents series. The moment the block D returns so that the projection k^2 can ride into the recess k^3 the arms k' drop and engage the pins on the bar k^6 and the catch h respectively. This return movement of the block D has also released the blocks D', D² as above explained and the block D² forces the piece K endwise and thus communicates a pull to the catch h on the next adjacent series. If this series has had no key depressed the arms k' are already connected with the connection k^6 and the catch h so that the pull is communicated to the series beyond and so on throughout the machine. So that the movement of the releasing lever C² is communicated to

each series directly through the piece of the banks or series in which no registration has been made, and through the blocks D, D', D² and piece K of such banks or series in which a registration has been made. On the rack bar F is a pin f^3 against which the projection d^{12} will strike and thus carry the rack bar back to its normal position. This movement backward of the rack bar causes the segment F' to revolve and through the pawl f the adding wheel F⁴ is revolved. On the wheel F⁴ at regular intervals, say every ten teeth, is a beveled projection f^4 . Journaled on the rod 9 is a lever M, one arm of which terminates adjacent to the wheel F⁴ and is provided with a roller against which the projection f^4 on the wheel may ride. The sleeve whereby the lever M is journaled on the rod is extended along the rod to a point adjacent to the registering wheel of the next highest series. At this point an arm M' projects upward and is connected by the rod m with the upper end of an arm M² which is journaled on the rod 11. Pivoted to the upper end of this arm M² is a pawl m' that engages the teeth on the periphery of the registering wheel. Now as will be seen when the projection f^4 of the registering wheel of one series rides against the roller on the lever M it will, through the arm M' and rod m cause the pawl m' to move the wheel one notch or tooth.

Extending across the machine is a universal bar N supported by the arms n which are pivoted to the end frame as at n' . Pivoted at the back of the machine by the lever N' is a universal bar N², the lower end of the lever N' being connected with the universal bar N by the rod N³. As will be seen this universal bar is located just in front of the arm c^3 of the key C and as the key is depressed it will throw this bar forward and the universal bar N² will thus be thrown back. On the stem of each tablet is a beveled projection n^2 which engages the universal bar when the tablet remains in that position until a key is depressed to make a new record when the tablets of the previous record will be thus released and allowed to drop. Back of the fingers c^{12} of each series is pivoted a bar O which is common or universal for that series, that is, extends the distance behind the fingers for that series. This bar O is in the path of the cross piece c^8 and as one is elevated the end c^9 of the cross piece engages this bar and the cross piece and its fingers c^{12} are thus held in the elevated position until the block D, in returning to its normal position, has struck the pin on the rack bar and carried it back. As the block reaches its normal position it strikes the end of the arm O' and the latter being pivoted to the arm which supports the universal bar O will throw the latter back and thus release the cross piece c^8 and allow the finger to drop.

I will now describe the money receptacle mechanism. Instead of the drawer that is thrown out and pushed in I provide a stationary receptacle P. Pivoted to the base A of

the apparatus and at each end is an arm or lever Q and rigidly engaged to the upper end of these arms is a cover Q' shaped so that when in its normal position it covers the receptacle P. The spring Q² tends to force the cover back or open when released.

Q³ is a catch pivoted at q adapted to hold the cover Q' normally closed as shown in Fig. 2. This catch has an upwardly projecting arm q' which is engaged by the connection q² with the bar q³ which is universal to all the keys excepting the key C². Now as will be seen when the key C is depressed to make a registration and indication the arm c' strikes the bar q³ and raises the catch Q³ and the spring Q² throws the cover back so that the receptacle P is exposed. Extending from the lever Q is an arm Q⁴ (Fig. 1), this arm Q⁴ being connected with the arm C³ on the key C² by the connection q⁴. Thus a depression of the releasing key C² operates to throw the cover Q' forward and shut off the receptacle.

To provide a locking mechanism so that the adding wheels cannot be tampered with while being examined I provide the hinged lid R on the case of the machine and at the point where it is hinged to the case A', I provide a cam shaped projection r. Journaled upon the rod 10 is a lever R', there being one lever for each adding wheel. This lever R' is provided with a projecting arm R² the end of which terminates adjacent to the toothed periphery of the wheel F⁴. Now as will be seen when the lid R is thrown up to examine the indication of the adding wheels the arm R² will be thrown down into the teeth of the adding wheel and thus lock the latter against revolution in either direction.

S is a pawl journaled on the rod 8 which engages the toothed periphery of the wheel F⁴ and prevents a backward revolution of the same at any time.

To prevent the keys C from being depressed when the lid R is thrown open I pivot at each end a tilting lever T and connect them by a universal bar T' extending across the machine slightly above and in advance of the ends of the arms c' of the keys C. Extending up from the opposite end of the lever T is a rod T² which terminates adjacent to the lower edge of the cover R. Now when the cover R is raised the universal bar T' will, by its weight, drop down in front of the arms c' thus locking the keys until the cover R has been released.

The general operation of the machine is as follows: A key C is depressed. This operates through the lever C', piece c⁶, and cross piece c⁸, to elevate a tablet, the tablet being caught in its elevated position by the bar N² engaging the projection n² on the tablet stem. The same elevation of the cross piece c⁸ throws up a finger c¹². The same elevation of the cross piece c⁸ disengages the lever J from the rack bar F and the spring shaft F³ and pinion F² causes the rack bar to move forward, its motion being limited by

the finger c¹². The same depression of the key C has, through the wire c², thrown forward the blocks D, D', D² each being engaged and held in its advanced position by the beveled catches h, h', h². The same depression of the key C has through the bar q³ raised the catch which engages the cover of the cash receptacle and the spring Q² has thrown it back to expose the receptacle. The forward movement of the rack bar has revolved the segment F' and caused the pawl f to pass over the number of teeth on the toothed periphery of the wheel F⁴ corresponding with the number of the key depressed. The same depression of the key has through the universal bar N disengaged and allowed the tablets indicating the previous registration, to drop. We thus have the receptacle for the cash exposed, the tablets indicating the purchase exposed, and the adding or registering mechanism in position to make the addition or registration when the key C² is depressed. This depression of the key C² operates through the connection q⁴ to close the cover of the cash receptacle. The same depression acts through the bar C⁴ to release the catch h thus successively releasing the blocks D, D², D³, in each series or in those series in which a registration has taken place. The return movement of the block D causes the rack bar F to return to its normal position, thus revolving the segment F' and the wheel F⁴. The same return of the block D has caused the bar O to disengage from the cross piece c⁸ and allow the latter and its accompanying finger c¹² to drop to place. The mechanism is now in position for another record.

It will be seen that by the above mechanism I have greatly simplified the releasing mechanism for each successive series or banks of keys and have provided a means whereby the mechanism may be released no matter in which series or banks the registration has been made. I have also provided a novel cash receptacle and means for gaining admission to the same and have also provided a novel means for locking the adding mechanism and the recording keys while an examination is being made of the adding mechanism.

What I claim is—

1. In a cash register the combination of a series of keys, a registering wheel, a reciprocating rack released by a key, a catch to hold it until released, mechanism to move the rack, and mechanism engaged to the rack adapted to engage and move the registering wheel, substantially as described.

2. In a cash register the combination of a series of keys, a registering wheel, a reciprocating rack released by a key, a catch to hold it until released, mechanism to move the rack, and a segment meshing with the rack and carrying a pawl and engaging the registering wheel, substantially as described.

3. In a cash register the combination of a series of keys, a registering wheel, a horizon-

tally reciprocating rack released by a key, a catch to hold it until released, mechanism to move the rack, and a segment meshing with the rack and provided with a pawl that engages the registering wheel to move it, substantially as described.

4. In a cash register the combination of a series of keys, a registering wheel, a reciprocating rack a catch to hold it until released, mechanism between the keys and rack for releasing the latter, means for causing the rack to move, a segment meshing with the rack, and a pawl on the segment adapted to engage and move the registering wheel, substantially as described.

5. In a cash register the combination of a registering wheel, a reciprocating rack, a spring for causing the rack to move it from its initial position, mechanism adapted to engage the rack bar and move it in the opposite direction, and a lever engaging the rack and adapted to engage and move the registering wheel, substantially as described.

6. In a cash register the combination of a registering wheel, reciprocating rack, a spring for causing the rack to move in one direction, spring mechanism adapted to engage it and move it in the opposite direction and a gear segment meshing with the rack and provided with a pawl that engages the registering wheel and moves it, substantially as described.

7. In a cash register the combination of a registering wheel, a reciprocating rack, a spring for causing the rack to move in one direction, spring mechanism adapted to engage and move it to its normal position and a segment meshing with the rack and engaging the registering wheel to move it when the rack is moved to its normal position, substantially as described.

8. In a cash register the combination with the registering wheel, the reciprocating rack and the segment meshing with the rack and adapted to operate the registering wheel, of a spring impelled pinion engaging said rack to move it in one direction, substantially as described.

9. In a cash register the combination with a series of keys of vertically immovable horizontally reciprocating rack bar a catch for holding it until released, a spring for causing the rack bar to move in one direction, and mechanism between the keys and rack bar for releasing it, a registering wheel, a segment between the rack bar and registering wheel whereby the movement of the bar is communicated to the wheel and means for moving the rack bar to its normal position, substantially as described.

10. In a cash register the combination with a series of keys, of a reciprocating block positively connected with each of said keys, means for returning said block to its normal position and a rack bar connected with a registering wheel adapted to be engaged and moved to its normal position by the reciprocating block, substantially as described.

11. In a cash register the combination of a reciprocating block, a series of keys positively connected therewith, a spring for returning said block to its normal position, a rack bar adapted to be engaged by said block and moved to its normal position, a registering wheel and mechanism between the rack bar and wheel whereby the wheel is moved by the rack bar, substantially as described.

12. In a cash register the combination of a series of keys, a reciprocating block positively connected therewith and adapted to be moved by the depression of any one key, a catch for engaging and holding said block when moved, a vertically immovable horizontally reciprocating spring impelled rack bar also released by the movement of any one of said keys, and a spring for returning said block and rack bar to their normal positions when the block is released, substantially as described.

13. In a cash register the combination of a series of operating keys, a reciprocating block connected with each of said keys, two auxiliary reciprocating blocks in advance of the first and adapted to be moved by the movement of the first, catches for engaging and holding each of said blocks when moved, a releasing key for disengaging the catch which holds the first named reciprocating block, a spring for returning it to its normal position, a shoulder on said first named block adapted to operate upon and release the engaging catch for the second reciprocating block, a spring for returning said latter to its normal position, and a shoulder on said second reciprocating block adapted to release the third reciprocating block, substantially as described.

14. In a cash register the combination of two or more series of operating keys, a reciprocating block in positive connection with each key of one series, two more reciprocating blocks in advance of the first and adapted to be moved by the movement of the first, catches for engaging each of said blocks independently, means connected with the catch which engages the first or principal block and adapted to disengage the same from the block, a shoulder on the principal block adapted to engage and withdraw the catch which holds the second block, a shoulder on the second block adapted to disengage the third block, and means on the third block adapted to engage connecting mechanism which operates to withdraw the catch that holds the principal reciprocating block of the adjacent series, substantially as described.

15. In a cash register the combination of two or more series of operating keys, a reciprocating block positively engaged with each key of a series, two auxiliary reciprocating blocks in advance of the first and adapted to be moved by the movement of the first, catches for engaging each of said blocks separately, a releasing key engaged to the catch which holds the first block and adapted to

release it, a shoulder on the first block adapted to operate upon and disengage the catch which holds the second block, a shoulder on the second block adapted to disengage the catch which holds the third block, and a shoulder on the third block adapted to engage connecting mechanism to disengage the catch which holds the first block of the next adjacent series, substantially as described.

16. In a cash register the combination with two or more series of keys of three reciprocating blocks adapted to be moved by any one of the keys of the series to which they belong, catches for engaging said blocks to hold them in the position to which they are moved, releasing mechanism for releasing the blocks successively, and a connecting piece between the catch which holds the first block of one series and the corresponding catch on the next adjacent series, said connecting piece connecting the two catches when the principal reciprocating block is in its normal position, but disengaged from said catches by the movement of said principal reciprocating block, substantially as described.

17. In a cash register the combination with two or more series of keys, reciprocating blocks D, D', D^2 for each series, catches h, h', h^2 for engaging said reciprocating blocks when moved, the connecting piece K adapted to engage and connect the catches h of two adjacent series when the block D is in its normal position, means on the block D for disengaging said connecting piece when the block is moved and a shoulder on the block D^2 adapted to engage and move the connecting piece as the block D returns to its normal position, substantially as described.

18. In a cash register the combination with two or more series of keys of reciprocating blocks D, D', D^2 for each series, catches h, h', h^2 , for engaging each of said blocks independently, a releasing key engaged to the catch h of the first series, the piece K connecting the catches h of two adjacent series, means on the block D for disengaging said connecting piece when the block is moved from its normal position, a shoulder on the block D for disengaging the catch of the block D' as the block D returns to its normal position, a shoulder on the block D' for disengaging the catch that holds the block D^2 , and a beveled shoulder on the block D^2 adapted to engage the piece K and move it after the block D has returned to its normal position, substantially as described.

19. In a cash register the combination with a series of keys, a series of fingers adapted to be elevated by said keys, means for holding the fingers in an elevated position, a spring impelled rack bar adapted to be disengaged by the movement of said keys and its motion limited by said finger of a reciprocating block connected with each of said keys and adapted to be moved thereby, a spring for returning said block to its normal position, and inter-

mediate mechanism between said block, and the means for holding the finger in an elevated position whereby the movement of the block in returning to its normal position disengages the fingers and allows them to drop, substantially as described.

20. In a cash register the combination with a series of keys of a stationary cash receptacle, a movable cover for protecting the same, and intermediate connections between the keys and cover whereby the latter is released by a key to open it and closed by the movement of another key, substantially as described.

21. In a cash register the combination with a series of keys of a stationary receptacle, a movable cover for protecting the same, a spring for throwing said cover out of its normal position and a key positively connected with said cover for throwing it into its closed or normal position, substantially as described.

22. In a cash register the combination with a series of keys of a stationary cash receptacle, a spring impelled movable cover for protecting the same, a catch for holding said cover in its closed position, mechanism between said catch and the keys whereby the latter disengage the catch and a key for closing said cover, substantially as described.

23. In a cash register the combination of a series of keys adapted to operate recording and indicating mechanism of a releasing key for releasing said recording mechanism, said releasing key adapted also to close the money receptacle, substantially as described.

24. In a cash register the combination with a series of keys for operating and recording, and indicating mechanism of a key for releasing said recording and indicating mechanism, said key positively engaged with a cover adapted to close a stationary cash receptacle and to close said cover by the movement of the key, substantially as described.

25. In a cash register the combination of two or more series of operating keys, a reciprocating block positively engaged with each key of a series, two auxiliary reciprocating blocks in advance of the first and adapted to be moved by the movement of the first, catches for engaging each of said blocks separately, a releasing key engaged to the catch which holds the first block and adapted to release it, a shoulder on the first block adapted to operate upon and disengage the catch which holds the second block a shoulder on the second block adapted to disengage the catch which holds the third block, and a shoulder on the third block adapted to engage connecting mechanism to disengage the catch which holds the first block of the next adjacent series, and a cash receptacle adapted to be closed by the movement of the releasing key, substantially as described.

26. In a cash register the combination with the registering mechanism and a cover for concealing said mechanism, of means for lock-

ing the registering mechanism against rotation when the cover is moved from its normal position, consisting of a lever, one end terminating adjacent to the cover and adapted to be moved by a movement of the cover and the opposite end engaging the registering mechanism and hold it positively against rotation while the cover is out of its normal position, substantially as described.

27. In a cash register the combination with a registering wheel and a cover for concealing the same, of means for locking said wheel when the cover is raised, consisting of a lever having one end adjacent to the periphery of the wheel, and the other end adjacent to the point where the cover is hinged, and a cam on the cover adapted when the cover is raised to bear upon the lever and cause it to engage and lock the wheel, substantially as described.

28. In a cash register the combination with a series of operating keys, the registering mechanism, and a cover in the case for concealing said registering mechanism of a bar adapted to be operated by the movement of

said cover, said bar locking said operating keys, substantially as described.

29. In a cash register the combination with a series of operating keys, registering wheels, and a cover in the case for concealing said registering wheels of a pivoted bar, adapted, when lowered to engage and lock said keys, said bar lowered by the movement of the cover to expose the registering wheels, substantially as described.

30. In a cash register the combination with a series of keys of a reciprocating block to which each of the keys of the series is connected, said block adapted to be moved by any one of the keys and a spring impelled lever engaging said block and adapted to return it to its normal position, substantially as described.

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

HARRY M. NEER.

Witnesses:

W. H. CHAMBERLIN,
FLORENCE KING.