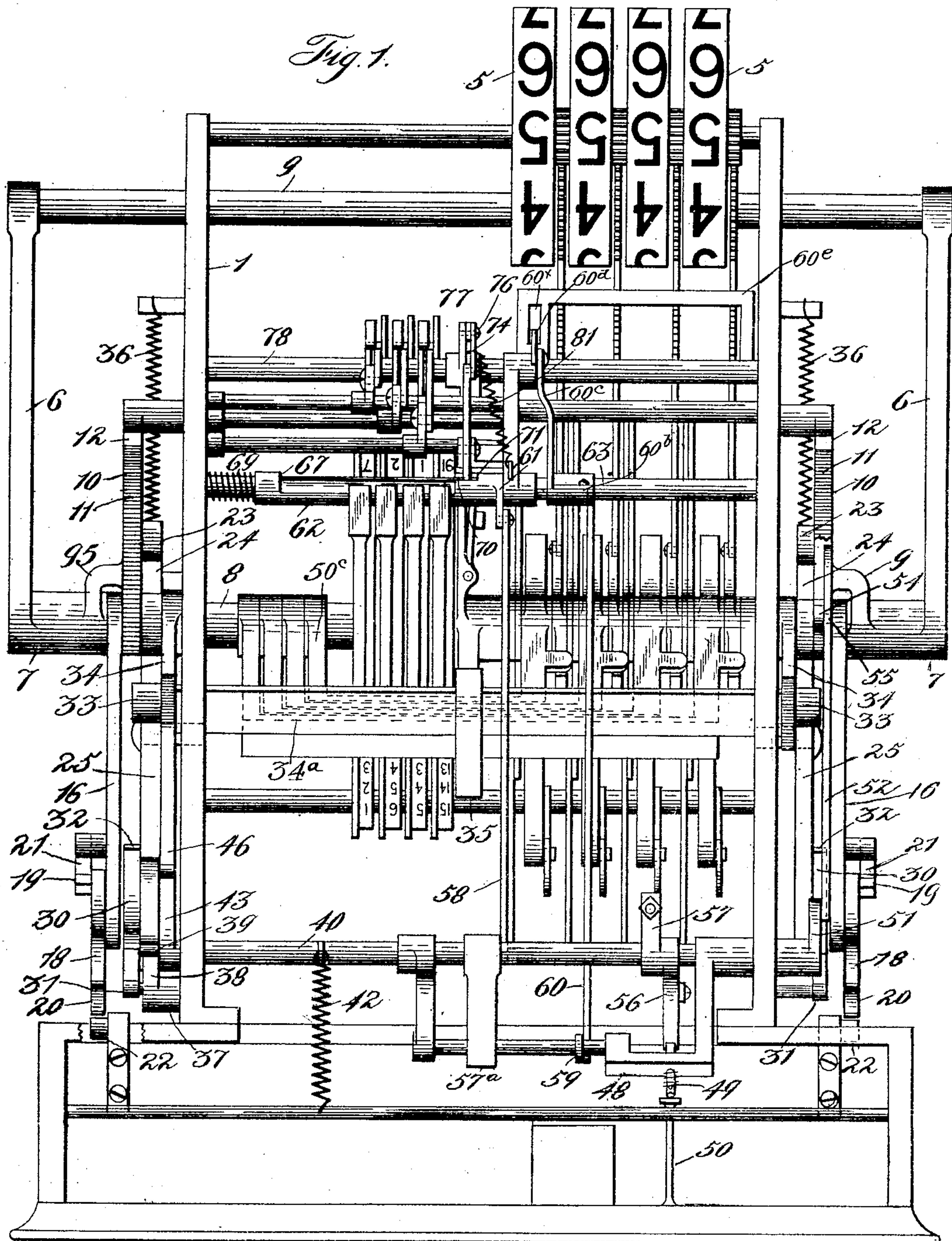


J. H. McCORMICK.
CASH REGISTER.
APPLICATION FILED DEC. 29, 1897.

960,376.

Patented June 7, 1910.

4 SHEETS—SHEET 1.



WITNESSES:

Wm. H. Muzzey
Wm. McCarthy

INVENTOR.

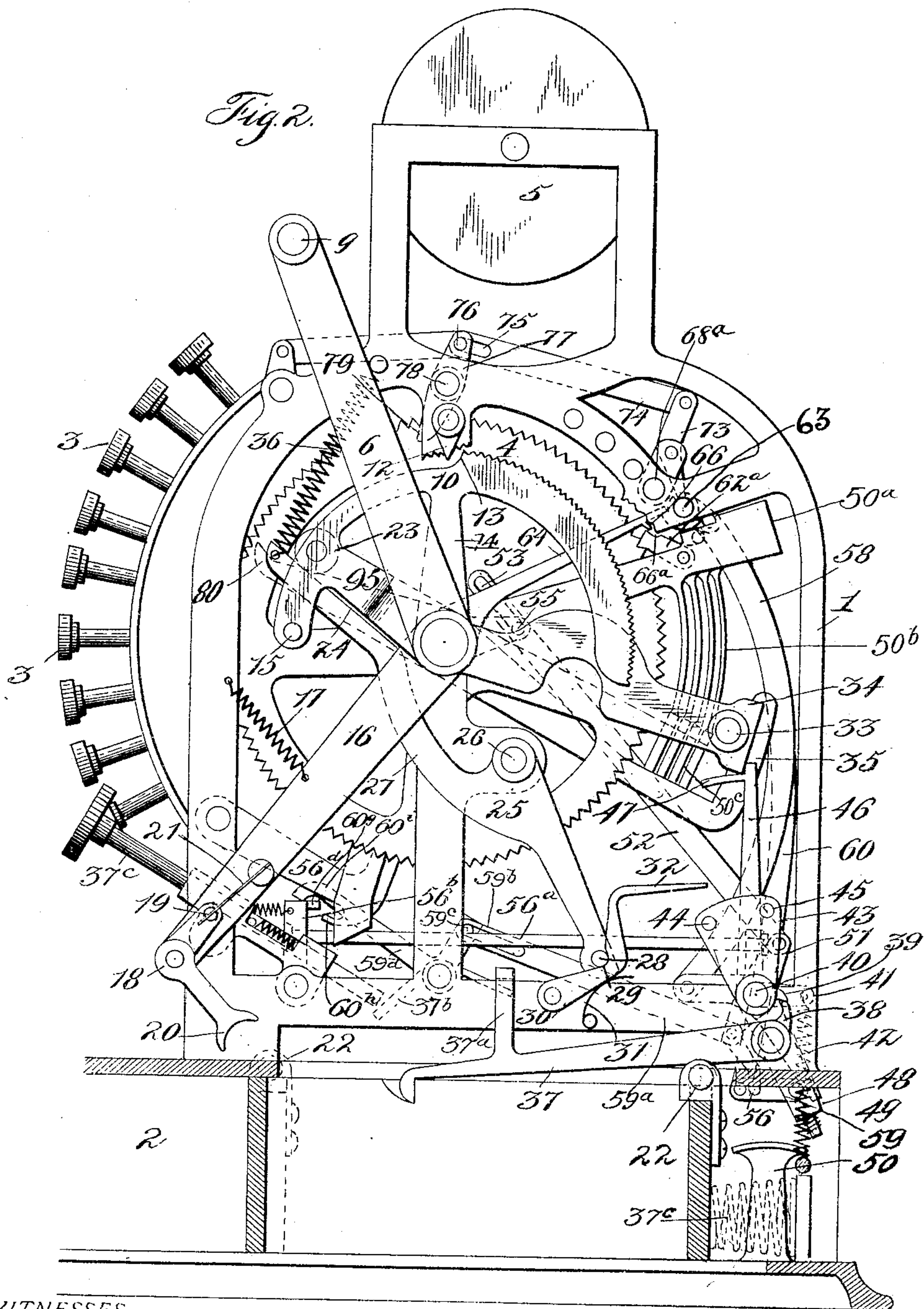
John H. McCormick.
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4 SHEETS—SHEET 2.



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4 SHEETS—SHEET 3.

Fig. 3.

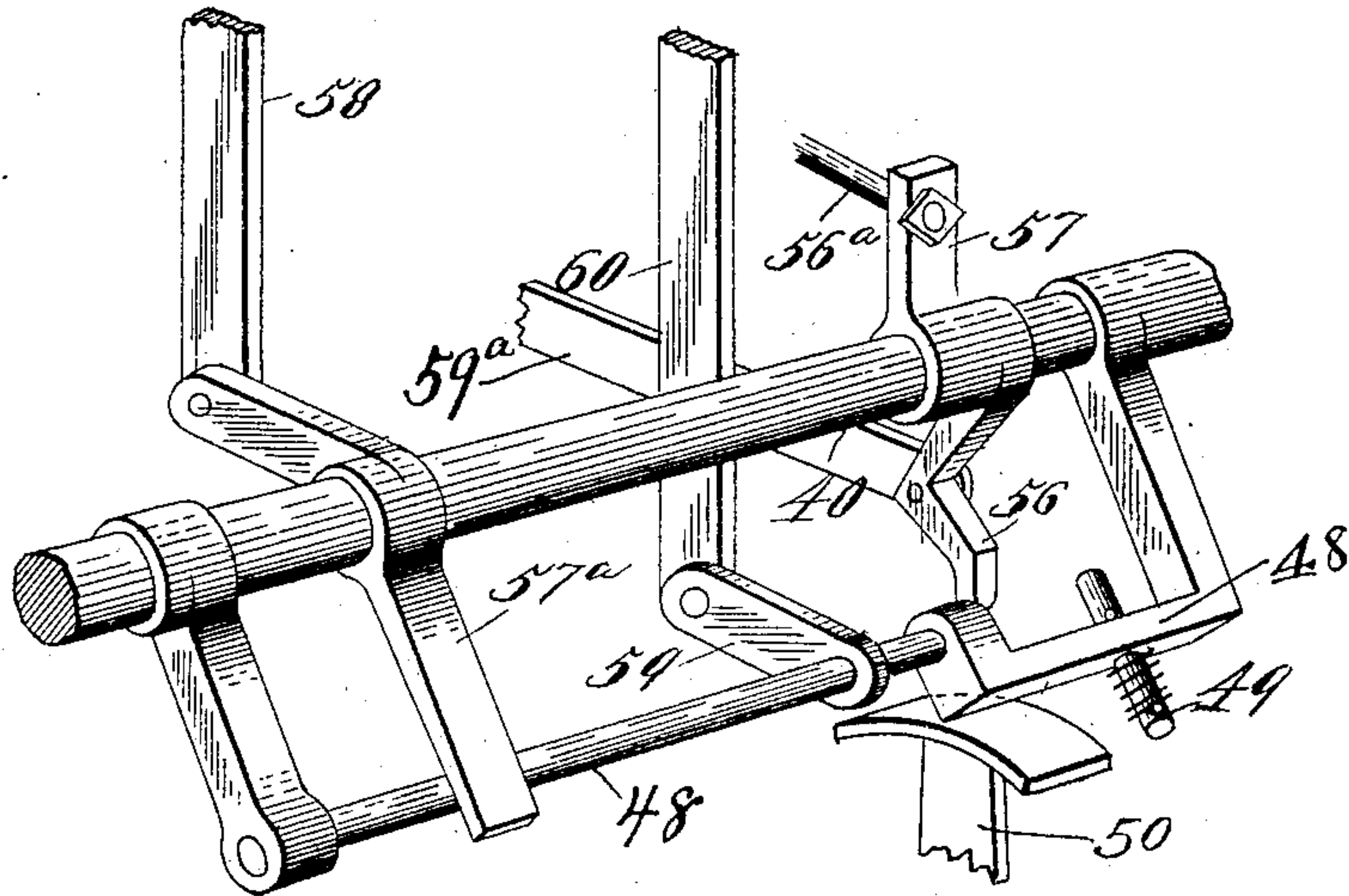
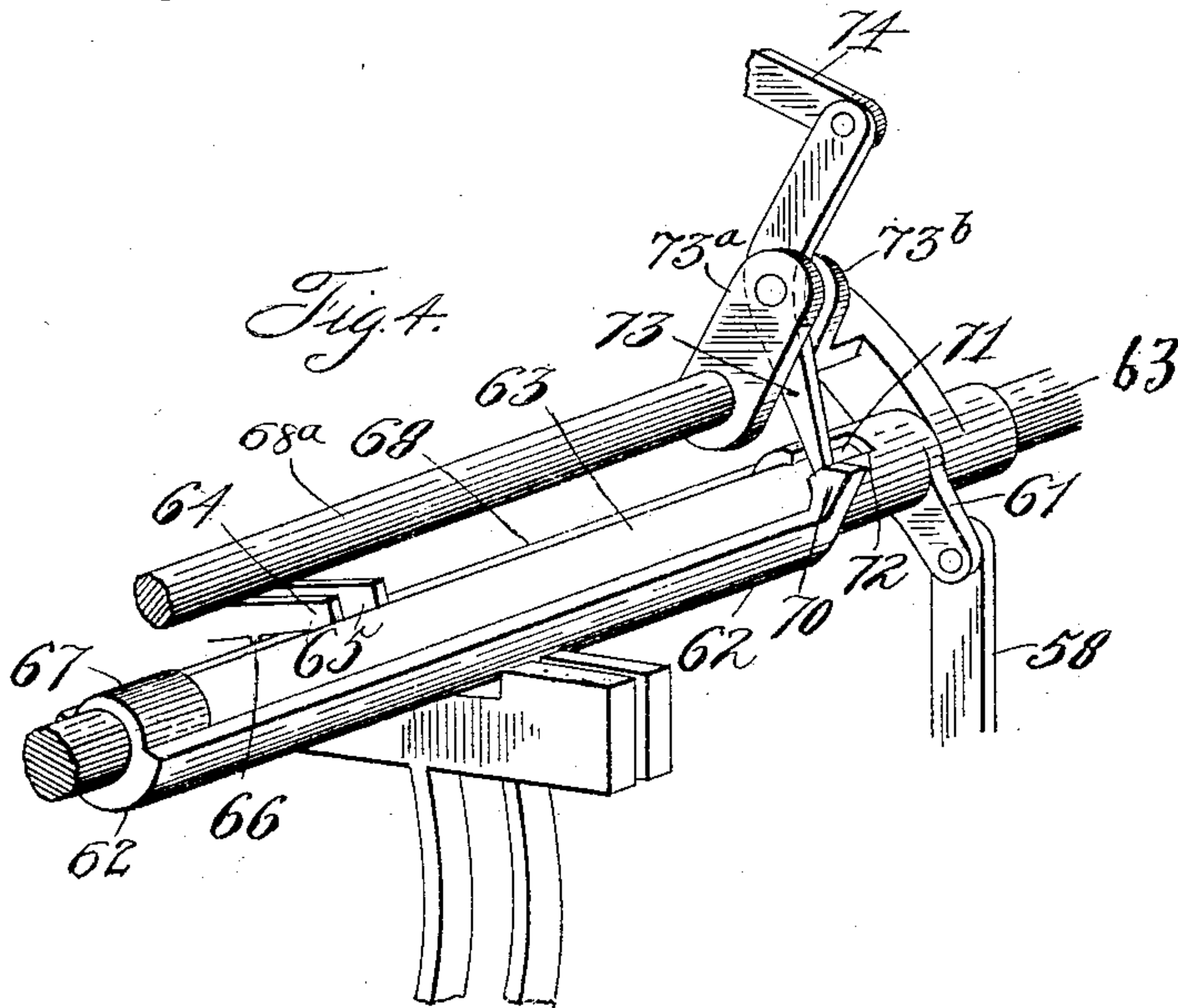


Fig. 4.



WITNESSES:

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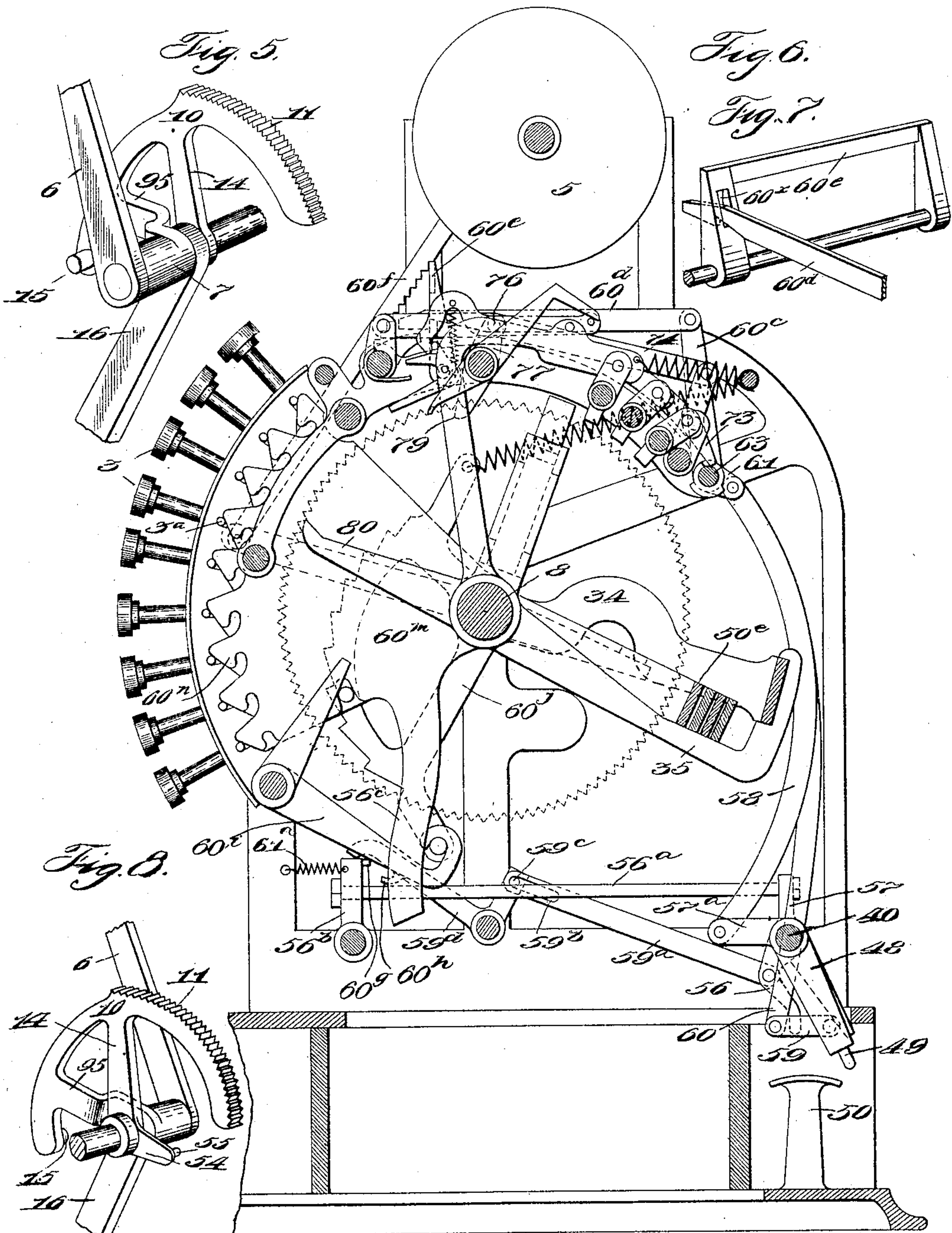
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APPLICATION FILED DEC. 29, 1897.

960,376.

Patented June 7, 1910.

4 SHEETS—SHEET 4.



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UNITED STATES PATENT OFFICE.

JOHN H. McCORMICK, OF DAYTON, OHIO, ASSIGNOR, BY MESNE ASSIGNMENTS, TO THE
NATIONAL CASH REGISTER COMPANY, OF DAYTON, OHIO, A CORPORATION OF OHIO,
(INCORPORATED IN 1906.)

CASH-REGISTER.

960,376.

Specification of Letters Patent.

Patented June 7, 1910.

Application filed December 29, 1897. Serial No. 664,284.

To all whom it may concern:

Be it known that I, JOHN H. McCORMICK, 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; and I do hereby declare the following to be a full, clear, and exact description of the invention.

This invention relates to improvements in cash registers and indicators and has more particular relation to the type of machine patented to J. H. McCormick October 27, 1896 and numbered 570,141.

One of the several objects of the invention is to provide means in a machine of the class mentioned for operating the registering and indicating mechanisms independently of the movements of the cash drawer.

In the accompanying drawings forming part of this specification, Figure 1 represents a rear elevation of the devices embodying the invention applied to a machine of the class mentioned; the cabinet of the same being removed. Fig. 2 represents a side elevation, partly in section, and broken away, of the same. Fig. 3 represents an enlarged detail perspective view of a portion of the rock shaft with its yoke and coöperating mechanism. Fig. 4 represents an enlarged detail perspective view of the locking levers for the operating pawls and the trip frame and connections for tripping said locking levers. Fig. 5 represents an enlarged detail perspective view of the full stroke rack segment and its supporting and operating arms. Fig. 6 represents a central vertical section, partly broken away, through the said improvements with a number of the parts omitted for clearness. Fig. 7 represents an enlarged detail perspective view of the indicator rack latch frame and its operating hook bar, and Fig. 8 represents a view similar to Fig. 5 but taken at the opposite side of the machine.

As a number of the parts shown in connection with the present improvements are shown and described in the aforesaid patent, no detailed description of the same will be here given but reference to said patent for such description may be made.

In the aforesaid drawings 1 represents the frame of the machine, 2 the cash drawer, 3 the keys, 4 the registering wheels, 5 the indicating wheels and 6 the operating hand

levers. Each of these levers is provided with a hub or sleeve 7 which is loosely mounted upon one end of the main shaft 8 of the machine as better shown in Fig. 5. The location of said levers at the opposite ends of the shaft, as shown, permits of their outer ends being connected by a cross hand bar 9 which may be grasped and drawn down in front of the keys to operate both of said levers simultaneously; the levers and cross bar forming in effect an operating yoke.

As each of the levers 6 and the devices connected thereto and operated thereby are similar in all respects except being located at the opposite ends of the machine and therefore facing in opposite directions, the right hand mechanism only will be described, as this description will suffice for both. The sleeve 7 of this mechanism is provided with an angular arm 95 (see Fig. 5) which assists in supporting a segmental frame 10 having a portion of its periphery formed with rack teeth 11. The rack formed by these teeth is engaged by a pivoted pawl 12, mounted on the frame 1 and is adapted to lock the lever 6 against reverse movements at all times after its movement has commenced and until the conclusion of the full stroke of said lever in either direction. The said pawl is tripped from one inclined position to the other by a shoulder 13 formed on the frame 10 and also by the end of said frame, so that the movements of the lever may be reversed by the reversal of the pawl in a manner well known in the art. By this means a partial stroke of the lever and devices connected thereto is absolutely prevented and said devices locked against all reverse movement until after a full stroke has been made. The segmental frame 10 is further supported and braced by an arm 14 the inner end of which is journaled on the shaft 8. Said frame is also provided with a laterally projecting stud 15 which is adapted to contact with a drawer closing lever 16 journaled on the shaft 8 between the sleeve 7 and the arm 14, to force the said lever down against the tension of a spring 17 which connects it with the frame 1. The lower end of the lever 16 is provided with a pivoted bell crank lever 18 on one arm of which is mounted a split stud 19; the remaining arm being formed at its end with an enlargement or head 20 having a concave recess or notch adapted to embrace

a stud 22 mounted on the drawer 2, when said lever 16 is operated and thus close the drawer. A flat spring 21 is rigidly secured on the lever 16 so that its free end projects through the split stud 19 and thus holds the lever 18 in its normal position to engage the stud 22 but permits of its movement in either direction during its relatively changing positions. When the said lever 16 is operated as above described the head 20 engages the stud 22 which is suitably mounted on the rear of the drawer 2 and thus closes the latter; the relative positions of the levers 16 and 18 being changed during this movement and again resumed at the termination of the same as above described. It will thus be seen that the drawer is closed simultaneously with the operation of the registering mechanism by the above described devices; the pressure upon the drawer being of course exerted evenly at both ends of the same by the duplicate levers and connecting devices. The said frame 10 is further provided with an anti-friction roller 23 (see Fig. 2) which normally bears upon the straight edge 24 of an operating lever 25 pivotally mounted upon a lug 26 of the main frame. This operating lever is formed with a curved portion 27, for a purpose hereinafter described, and is provided at its lower end with a laterally projecting pin 28. This pin normally engages a notch 29 formed in the lower crotch of an approximately Z shaped lever 30 pivotally mounted upon the frame, and thus holds the lower end of the lever 25 locked in position. The said lever 30 is held normally up so that the pin 28 projects into the notch 29, by a bow spring 31 secured to the main frame and bearing against the under side of said lever. The upper part 32 of the lever 30 acts as a tripping arm by means of which said lever is operated to release the lever 25 by disengaging from the pin 28 and thus leaving said lever free to rise. The said arm 32 is depressed to free the lever 25 as above described by an anti-friction roller 33 mounted upon a lever 34 which in turn is pivotally mounted upon the shaft 8. A suitable coupling bar 34^a (see Fig. 1) connects the outer ends of the levers 34 at the opposite ends of the machine so as to form an operating yoke for the attachment of a register operating lever 35. This lever is pivoted at its inner end upon the shaft 8 and is adapted when raised and lowered to raise and lower the operating yokes 50^e as hereinafter described.

It will be seen from the above description that when the lever 34 is released and allowed to descend as hereinafter described it will cause the anti-friction roller 33 to engage the arm 32 and force the same downward to release the lever 25 which it then engages. When this latter lever is forced downward at its forward end by the roller

23 as above described, its rear end is elevated thus carrying the lever 34 upward therewith to its normal position. When the lever 6 is released after being depressed it is returned to its normal position through the medium of the roller 23 mounted on the frame 10 and the lever 25; which latter is drawn back to normal position by a coil spring 36 connecting it with the main frame. As the rear end of the lever 25 descends the pin 28 strikes the arm 32 and depresses the catch lever 30 until said pin again becomes locked in the notch 29. It will be observed that the lever 6 cannot be depressed until the lever 34 has descended and unlocked the lever 25 as before described, which fact guards said lever 6 against any accidental or intentional movement until after the lever 34 has first fully descended. It will be further noted that when the lever 6 is depressed the roller 23 first passes along the straight edge 24 of the lever 25 thus moving the latter on its pivot but when the roller strikes the edge of the curved portion 27 which is then concentric with the shaft 8, the motion of the lever 25 ceases while the levers 6 and 16 continue their movements to fully close the drawer.

The above description as before stated covers devices which are duplicated on the opposite sides of the machine but the description now to be given is intended to describe a single arrangement of devices.

The drawer 2 is normally held closed by a latching lever 37 which is adapted to be raised to release said drawer by an angular arm 37^a formed thereon and so located as to be engaged and operated by a pivoted bell crank lever 37^b mounted on the frame 1 (see Fig. 2). This bell crank in turn receives motion from a suitable spring pressed drawer key 37^c so mounted on said frame that its inner end normally lies in proximity to said bell crank whereby the latter is rocked upon its pivot upon the operation of said key substantially in the same manner that the drawer is released by the special keys in the aforesaid patent. When the pivoted drawer latching lever 37 is raised to permit the drawer to be forced open by its spring 37^a located between it and the back of the casing a nose 38 formed on said lever 37 is disengaged from a nose 39 on a rock shaft 40 thus leaving said shaft free to be rocked. This rocking operation is accomplished by means of an arm 41 rigidly mounted upon said shaft and connected to a coil spring 42; said spring being in turn connected to the main frame. The shaft 40 is further provided with a segmental plate 43 fast thereon and carrying two spaced laterally projecting pins 44 and 45 near its outer edge. A supporting lever 46 is journaled upon said shaft 40 in proximity to the plate 43 so as to extend between the pins 44

and 45. A laterally projecting segmental arm 47 is formed upon the lever 46 just below its upper end and is intended to normally support the lever 34 which is located upon the right hand side of the machine.

When the drawer is opened the shaft 40 is released as above described and rocked by the spring 42. This rocking movement of the shaft first turns the plate 43 until the pin 44 contacts with the lever 46 which latter is then in turn operated, but does not permit the lever 34, resting upon the arm 47, to descend until said arm has passed clear of said lever. The movements of the parts upon the closing of the drawer permit of the lever 46 being moved forward after the full upward movement of the lever 34 so as to move under and support the same. The said shaft 40 is also provided with a yoke 48 (see Fig. 3) fast thereon and carrying a spring pressed tripping plunger 49 the lower end of which is adapted to contact with the convex upper surface of a standard 50 mounted on the main frame, when the yoke is oscillated by the movement of the shaft. The said yoke is further provided with a rigid arm 51 (see Fig. 1) to the outer end of which is pivotally connected one end of a bar 52; the opposite end of said bar being formed with an elongated slot as at 53 (see Fig. 2). An arm 54 is mounted upon one of the arms 14 and is provided with a laterally projecting pin 55 which extends into the slot 53. As the yoke 48 swings forward the lower end of the tripping plunger strikes the curved surface of the standard 50 and thus forces said plunger upward against the tension of its spring. The upper end of said plunger then engages an angular pendent arm 56 loosely mounted upon the shaft 40, and forces the same forward. The said arm 56 is pivotally connected to a bar 59^a which in turn is formed with an elongated slot 59^b into which projects a pin 59^c formed on a pivoted locking bell crank lever 59^d. (See Fig. 6). This latter lever is formed with a hook end which is adapted to catch over a pivoted spring drawn transverse locking frame 56^b when the latter is drawn rearward by a headed rod 56^a which passes loosely through the same and also through an arm 57 formed on the lever 56. When said frame 56^b is drawn rearward against the action of its spring 61^a a flange 60^s abuts against a series of pendent arms 56^c formed on the respective detents or key locking frames 60^m and thus prevents the movements of said arms and frames and the operation of any key until said detents are again released by the raising of the hook lever 59^d. When the frame 56^b is drawn rearward the flange 60^s passes over hooks 60ⁱ formed on locking levers 60ⁱ, and thus prevents any movement of said levers. If any

lever has been raised before the frame is moved rearward the flange will pass under hooks 60^h and prevent their return until the frame again rocks forward into its normal position. The hooks 60ⁱ are arranged to lock controlling segments 60ⁱ substantially as described in the aforesaid patent. Each of the segments 60^m is pivoted on the shaft 8 and is formed on its periphery with a series of hook projections 60ⁿ which are arranged to coöperate with the pins 3^a of the keys 3 substantially as described in said patent. The operation of the hook lever as above described is effected through the medium of the bar 59^a and the lever 56; the latter receiving its motion from the spring pressed stud 49 mounted on the yoke 48. As the yoke moves forward the stud operates the lever 56 as before described and then passes under and to the opposite side of the same. After the lever 56 has been relieved of the pressure of the stud 49 it drops back slightly toward a vertical position; the peculiar loose connection of the rod 56^a allowing of such action. The lever 56 is now in a position to be struck by the stud 49 upon its return rearward movement and be thus operated to raise the hook 59^d through the aforesaid bar 59^a and thereby allow the frame 56^b to be drawn back out of locking position.

The detents or segments 60^m are similar in construction and operation to those shown in said patent and attention is therefore called to the latter for a detailed description of the parts. It will be observed that the arm 56 is operated by devices altogether disconnected from the drawer and actuated by the shaft 40. The rocking motion of the shaft 40 upon the opening of the drawer causes the arm 51 to draw the bar 52 downward so that the pin 55 will occupy the upper end of the slot 53. A depression of the levers 6 will now cause the bar 52 and arm 51 to be actuated and thus reset the shaft 40 against its spring tension. The drawer is closed as the shaft 40 is reset and the latch 37 thus allowed to assume its normal position so that the noses 38 and 39 will again engage and latch said shaft in position. After the drawer has been opened, the levers 6 are operated as before described to raise the levers 34 and as said levers are being elevated the shaft 40 is rotated, but the arm 46 does not move forward under its lever 34 until after the latter is raised above the arm 47. The proper forward movement of the support 46 is effected by the movement of the plate 43 as before described to cause the pin 45 to contact with the lever 46 and thus move the latter forward so that its arm 47 passes under its lever 34. A bell crank lever 57^a is mounted loosely upon the shaft 40 with one of its arms resting against the yoke 48 so as to be moved therewith but in

one direction only. The remaining arm of said lever is connected by a pivoted rod 58 with an arm 61 (see Fig. 4) formed on a trip frame 62 which latter is pivotally mounted upon a transverse shaft 63. Each of the register wheel operating pawls 62^a is mounted upon one of a series of pivoted levers 50^a which are journaled upon the shaft 8 between the toothed registering wheels 4 in substantially the same manner as described in said patent with the exception that said pawls engage and move the said registering wheels upon their upward instead of their downward strokes. Each of the said levers 50^a is provided with a pendent segmental arm or support 50^b; said arms being so located that their lower ends will contact respectively with the pivoted yokes 50^c mounted on the shaft 8 and arranged to be raised by the lever 35 as hereinbefore described. Each of the aforesaid pawls 62^a is adapted to be locked in engagement with the teeth of its respective register wheel by a locking lever 64, and each of said levers is adapted to be stopped at its normal position upon its up stroke by a cross bar 68^a which extends across the paths of said levers. Each of said levers 64 is pivotally mounted upon the shaft 8 and is formed at its outer end with a lifting finger 65 and a pendent locking nose 66, the latter being adapted to enter a notch 66^a in the back of its respective pawl to lock the same to its register wheel by preventing its moving away from the same and out of engagement with its teeth. The frame 62 (see Fig. 4) is formed on one side with a shoulder 68 which is adapted to engage the fingers 65 and thus support the locking levers out of contact with the operating pawls. Said frame is adapted to be swung to release the pawl locking levers and allow them to descend and lock the pawls by a coil spring 69 surrounding the shaft 63 and connected to said frame and the main frame of the machine as shown in Fig. 1.

It will be seen from the foregoing that when the frame 62 is oscillated through the arm 61 and link 58 the shoulder 68 lifts all of the locking levers 64 by catching under the fingers 65 and thus leaves the operating pawls and their levers free to descend. The frame 62 is also provided with a stop shoulder 70 and a notch 71 forming another shoulder 72. When said frame is operated to raise the locking levers and release the operating pawls it is locked in the position to which it is moved by one arm of a bell crank lever 73 which engages the shoulder 72. This bell crank lever is pivotally mounted between two arms 73^a and 73^b mounted respectively on the shafts 68^a and 63. Said lever 73 is pivotally connected to an operating link bar 74 which is formed with an elongated slot 75 for the accommodation of a coupling pin 76 (see Fig. 2). This pin is

rigidly mounted upon a lever arm 77, journaled upon a shaft 78, and provided with a tripping nose 79. A tripping arm 80 is connected to the operating lever 35 (see Fig. 6) and is adapted to engage said nose and operate the bell crank lever 73 through the aforesaid connections to release the frame 62. A coil spring 81 connects the link bar 74 with the main frame so as to normally hold the lower end of the bell crank lever 73 against the frame 62. When the cash drawer 2 is released and allowed to open as before described the operating pawls 62^a descend with their respective levers while the pawl locking levers are held up in their inoperative positions until after the transferring mechanism of the register wheels which may be of any desired construction, but is preferably substantially the same as described in the aforesaid patent, has been operated, and are then allowed to descend to lock the pawls to the registering wheels by the release of the frame 62 from the lever 73 as above described. When the levers 6 are operated the shaft 40 is rocked to reset the parts through the medium of arm 54 link 52 and arm 51 as before described and the bell crank lever 57^a which is loose on shaft 40 is actuated by the yoke 48 which is fast on said shaft which action rocks the frame 62 against the tension of its spring through bar 58 until the end of the lever 73 again engages back of the shoulder 72 and latches the frame in position, the locking levers 64 being again elevated to unlock the pawls by this movement. The yoke 48 is also provided with a pivoted link 59 which is pivotally connected to the lower end of a link bar 60. This bar is rigidly connected at its upper end to a sleeve 60^b (see Fig. 1) which is mounted loosely upon the shaft 63 and is provided with a rigid upwardly projecting arm 60^c. This arm is connected to a pivoted hook bar 60^d which passes through an aperture 60^e of a pivoted spring drawn locking frame 60^e which latter normally engages the indicator operating rack bars 60^f to lock the same in the positions to which they are moved during the operation of the machine. These means for moving these bars 60^f are substantially the same as described in said patent and form no part of the present invention.

When the frame 48 is released and rocked upon the operation of the key 37^c the frame 60^e through the above connections is drawn backward against the tension of its spring and thus releases the indicator bars or racks. Upon the initial downward movement of the levers 6 the return movement of the frame 48 is commenced and the frame 60^e thus released and allowed to engage the indicator racks to hold them in their adjusted positions.

By means of the above described mechan-

isms it is possible to operate all the moving parts of the machine and reset them to their normal positions by devices operating independently of the cash drawer.

5 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
10 a counter, of a cash drawer, a pivoted hand operated member, a pivoted drawer closing lever adapted to be engaged by a projection of said member during a portion of its stroke only and counter operating devices arranged to be operated by said hand lever
15 operated member.

2. In a cash register, the combination with a counter, of an operating mechanism, a counter operating lever and a support for the same comprising a rock shaft and a
20 lever mounted thereon and means for tripping said shaft to allow the same to rock and withdraw the lever from supporting position.

3. In a cash register, the combination with
25 a frame, a plurality of keys, of a register, register operating devices, a rock shaft, means for operating said shaft, a tripping plunger connected to said shaft and adapted to strike a stationary projection and a key
30 locking mechanism adapted to be operated by the said tripping plunger.

4. In a cash register the combination with a registering mechanism, of a series of auxiliary yokes, means for limiting the movements of said yokes, a main yoke for operating the auxiliary yokes, a latch for securing the main yoke in its normal position, and a lever for returning the main yoke to its normal position after it has operated;
40 said lever being movable independently of the main yoke.

5. In a cash register, the combination with a counter, of a counter operating lever, means for supporting said lever in position,
45 but adapted to release it at will, and a hand operating lever for resetting the counter operating lever but movable independently of the same.

6. In a cash register, the combination
50 with a counter, of a counter operating lever, a support for said lever, a cash drawer, a drawer latch, means connecting the drawer latch and lever support and devices for resetting the operating lever.

7. In a cash register, the combination with
55 a counter, of an operating mechanism, an operating lever for said mechanism, an operating shaft, a support for said lever mounted on said shaft, and means connecting the shaft and support whereby the former may move a predetermined distance before moving the latter.

8. In a cash register, the combination with
65 a counter, of an operating mechanism, a cash drawer, a pivoted hand lever, an op-

erating lever adapted to be operated by said hand lever, and a pivoted drawer closing lever also adapted to be operated by the hand lever.

9. In a cash register, the combination with
70 a counter, of an actuating mechanism therefor including an operating lever, a spring actuated shaft, a support for said lever mounted on said shaft, a cash drawer, and latching means for said drawer constructed
75 normally to hold said shaft against its spring actuation.

10. In a cash register of the class described, the combination with a counter, of counter operating devices, a cash drawer, a
80 latch for said drawer, and means connecting the latch with the operating devices independently of the cash drawer, for releasing the said devices upon the operation of said latch.

11. In a cash register of the class described, the combination with a counter, of an automatically operating counter mechanism, a cash drawer, devices for releasing said mechanism and drawer, and a separate
90 independent means which when operated, resets said mechanism and positively closes the drawer.

12. In a cash register of the class described, the combination with a counter and
95 an operating mechanism therefor including an actuating lever, of means normally holding said lever against movement, devices for releasing said holding means, a second lever positioned to reset said first lever, a cash
100 drawer, and a hand lever for actuating said second lever and having connections to close said cash drawer.

13. In a cash register of the class described, the combination with a counter, of
105 an operating mechanism therefor, an operating lever for said mechanism, a resetting lever adapted to move the operating lever, a latch for said resetting lever adapted to be actuated by the operating lever and
110 means for moving the resetting lever.

14. In a cash register of the class described, the combination with a counter, a counter operating mechanism, a support for the said mechanism, means for withdrawing
115 said support and means for first resetting the counter operating mechanism and then forcing the support under the same.

15. In a cash register of the class described, the combination with a counter, of
120 an operating mechanism therefor including a counter operating lever, a hand lever, a resetting lever positioned to actuate said counter operating lever and engaged by a projection of the hand lever and so constructed as
125 to remain stationary during a portion of the movement of said hand lever, and means for holding the counter operating lever in its elevated position but adapted to release it at will.

130

16. In a cash register of the class described, the combination with a plurality of keys, of a counter, an operating mechanism therefor, a rock shaft, a release device for the said mechanism mounted on said shaft, key locking devices, and means connecting the shaft with said devices so that they are operated simultaneously with the release device.
17. In a cash register of the class described, the combination with a plurality of keys, of a counter, an operating mechanism therefor, a rock shaft for releasing the operating mechanism, a key locking device connected to said shaft for locking all the keys until the registration is completed and means for operating said shaft and the said mechanism.
18. In a cash register of the class described, the combination with a counter, of a counter operating mechanism, an indicating mechanism, locking devices for the indicating mechanism, a lever for operating the counter operating and the indicating mechanisms, mechanism for supporting said lever and moving the locking devices and a hand lever for actuating this latter mechanism.
19. In a cash register, the combination with a counter, of operating pawls for the same, supporting devices for said pawls arranged when operated to permit said pawls to drop independently, a rock shaft connected to said devices and a hand lever for operating said rock shaft.
20. In a cash register the combination with a registering mechanism, a main yoke, a series of auxiliary yokes, means for limiting the movements of the auxiliary yokes, and a hand lever for returning the main yoke to its normal position; the construction being such that the main yoke can drop from its normal position independently of the movements of the lever.
21. In a cash register having a supporting frame, the combination with a counter and operating devices therefor, of a series of keys having connections to control said counter operating devices, a shaft, a movable stud carried by said shaft, a stationary frame projection positioned to be engaged by said stud, and key locking devices connected to be operated by said stud.
22. In a cash register the combination with a registering device, of a main yoke having an oscillatory movement, a series of auxiliary yokes connected to control said registering device and operated by the main yoke, means for limiting the movements of the auxiliary yokes, and a hand lever for moving the main yoke in one direction; the construction being such that the main yoke moves independently in the opposite direction.
23. In a cash register, the combination with a counter, of a series of operating devices for the same, a single resetting lever for said devices, a hand lever for moving the resetting lever during a portion only of its stroke, a movable locking means for locking said operating devices in connection with the counter and means for disengaging said movable locking means from the operating devices after the movements of the counter have ceased.
24. In a cash register the combination with a counter or register, a main yoke, a series of auxiliary yokes connected to actuate said counter or register, means for limiting the movements of the auxiliary yokes, an operating lever for elevating the main yoke, and a latch for said lever arranged to be tripped by the main yoke after the latter has made a predetermined independent movement.
25. In a machine of the class described, the combination with a counter and operating devices therefor including a pivoted main yoke, of means normally latching said yoke in advanced position, manipulative devices for withdrawing said latching means from latching position, a resetting lever, and a locking device therefor positioned to be engaged and released by said main yoke when the same moves after its latching device has been withdrawn, said resetting lever being positioned to be engaged by said main yoke and to return the same to its advanced position.
26. In a cash register, the combination with a registering mechanism, of a series of auxiliary yokes connected to actuate said registering mechanism, graduated segments connected to said yokes, means for limiting the movements of said segments, a main yoke for operating the auxiliary yokes, and a pivoted hand lever for actuating the main yoke only during a portion of its stroke.
27. In a cash register, the combination with a registering mechanism, of a series of auxiliary yokes and connections to operate said registering mechanism, a series of keys for limiting the movements of said yokes, a main yoke for operating the auxiliary yokes, and a pivoted hand lever for actuating the main yoke only during a portion of its stroke.
28. In a cash register, the combination with a registering mechanism, of a series of auxiliary yokes having connections to actuate said registering mechanism, means for limiting the movements of said yokes, a main yoke for operating said auxiliary yokes, a pivoted hand lever, and means intermediate said lever and main yoke whereby only a portion of the movements of the lever are imparted to the yoke.
29. In a machine of the class described, the combination with a counter and operating devices therefor including a main yoke, of means normally latching said yoke in ad-

vanced position, devices including a manually depressible key for withdrawing said latching means from latching position, a main resetting lever positioned to be engaged by said main yoke after the same has moved from advanced position, and a pivoted latch for said resetting lever positioned to be engaged and released by said main yoke as it nears its position of engagement with said resetting lever.

30. In a machine of the class described, the combination with a counter, and operating devices therefor including a main yoke, of an arm for latching said main yoke in advanced position, means for withdrawing said arm from latching position, a hand lever having connections for restoring said main yoke to advanced position after the same has been released from said arm and has moved to retracted position, means latching said connections and positioned to be withdrawn from latching position by said main yoke as the same approaches its retracted position, and connections from said hand lever to force said latching arm again to its position latching said main yoke.

31. In a cash register, the combination with a counter, of a counter operating member, an operating lever for said member, a latch for said lever positioned to be tripped by said member after the latter has made a predetermined portion of its stroke, and means for moving the operating lever after it has been released.

32. In a cash register, the combination with a counter, of counter operating pawls, a yoke for operating said pawls, an operating lever, a latch for said lever positioned to be tripped by the yoke after the latter has made a predetermined portion of its stroke, and means for moving the operating lever after it has been released.

33. In a cash register, the combination with a counter, of an operating mechanism therefor including a counter operating lever, a supporting lever for the same, a cash drawer, a latch for the drawer and means cooperating with said latch and constructed to be released by the movement of the same to permit the supporting lever to move from under the operating lever.

34. In a cash register, the combination with a series of keys, of a counter, a series of operating segments, a series of detents for

the keys arranged to lock the unoperated keys, a cash drawer, and devices for independently locking both the segments and the key detents.

35. In a cash register, the combination with a series of keys, of a counter, a series of counter operating segments controlled by said keys, pivoted hook levers for holding the segments in normal position, a cash drawer, a latch for said drawer and means for locking the hook levers, constructed to be moved to locking position upon the operation of the latch.

36. In a cash register, the combination with a registering mechanism, of a series of keys for determining the amount to be registered, a cash drawer, and a lever for positively closing said drawer and positively operating the registering mechanism according to the values of the operated keys.

37. In a cash register, the combination with a registering mechanism, of a series of keys for determining the amount to be registered, a cash drawer, a movable member for operating the registering mechanism according to the values of the operated keys and a movable drawer closing device mounted on the movable member.

38. In a cash register, the combination with a counter, of a cash drawer, a pivoted hand operated member, a pivoted drawer closing lever adapted to engage a projection on the drawer during a portion only of the movements of said lever and counter operating devices arranged to be operated by said hand operated member.

39. In a cash register, the combination with a registering mechanism and a cash drawer, of a series of auxiliary yokes connected to actuate said registering mechanism, means for limiting the movements of said yokes, a main yoke for operating the auxiliary yokes, relatively fixed means for holding the main yoke in an elevated position, devices for releasing said fixed means with provisions for releasing the cash drawer, and a pivoted hand lever constructed to return the main yoke to its normal position and close the drawer.

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

JOHN H. McCORMICK.

Witnesses:

WM. H. MUZZY,
IRA BERKSTRESSER.