

No. 702,710.

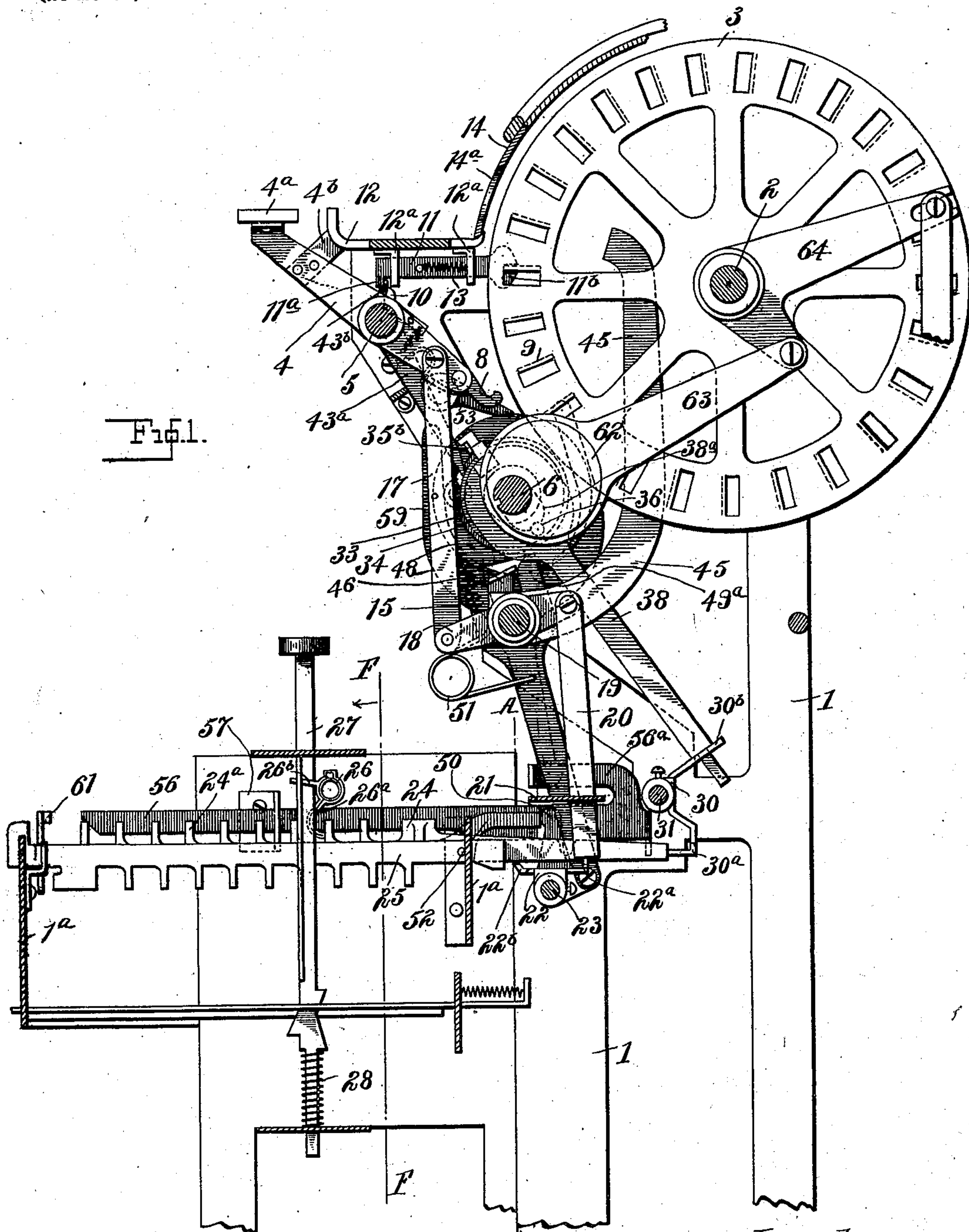
Patented June 17, 1902.

I. S. DEMENT & A. D. KING.
MECHANICAL CASHIER.

(Application filed Jan. 4, 1901.)

(No Model.)

6 Sheets—Sheet 1.



Witnesses,
Wm. A. Courtland
A. B. Levinger

Inventors
Isaac S. Dement
Arthur D. King
By King, & D. King
Attys

No. 702,710.

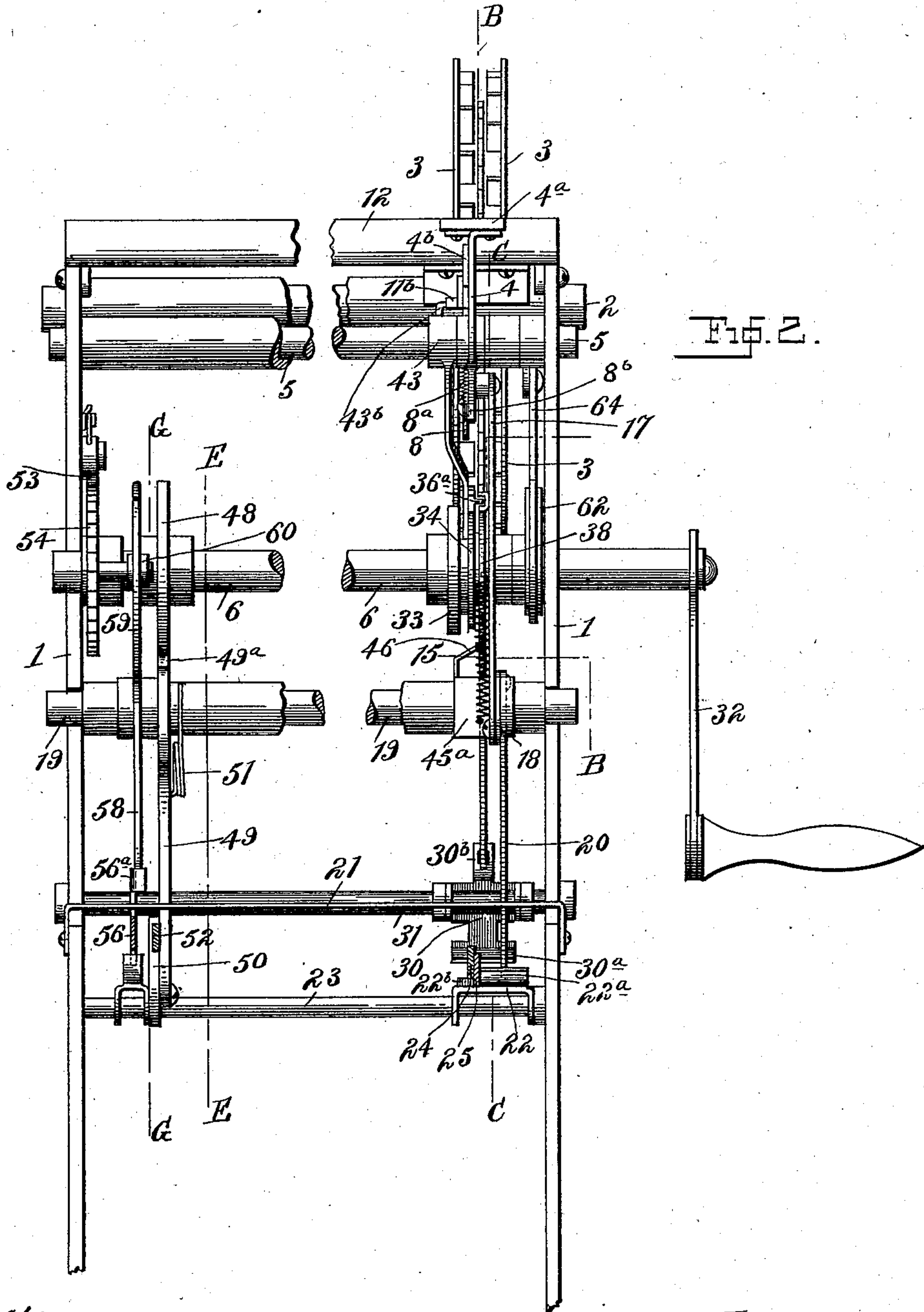
Patented June 17, 1902.

I. S. DEMENT & A. D. KING.
MECHANICAL CASHIER.

(Application filed Jan. 4, 1901.)

(No Model.)

6 Sheets—Sheet 2.



Witnesses.
Wm. A. Courtland
A. B. Levinger

Inventors
Isaac S. Dement
Arthur D. King
By King & Bros.
Attys.

No. 702,710.

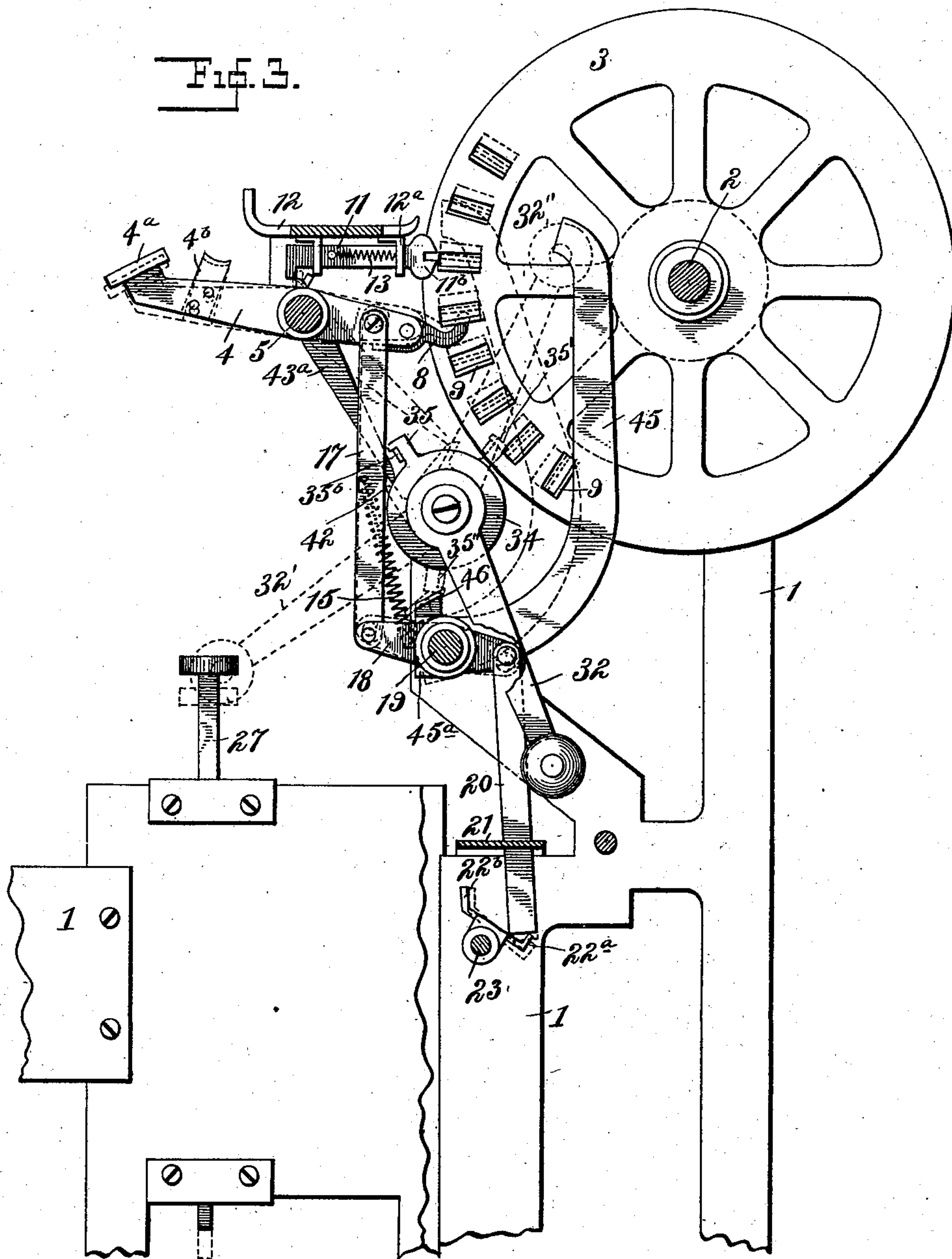
Patented June 17, 1902.

I. S. DEMENT & A. D. KING.
MECHANICAL CASHIER.

(Application filed Jan. 4, 1901.)

(No Model.)

6 Sheets—Sheet 3.



No. 702,710.

Patented June 17, 1902.

I. S. DEMENT & A. D. KING.

MECHANICAL CASHIER.

(Application filed Jan. 4, 1901.)

(No Model.)

6 Sheets—Sheet 4.

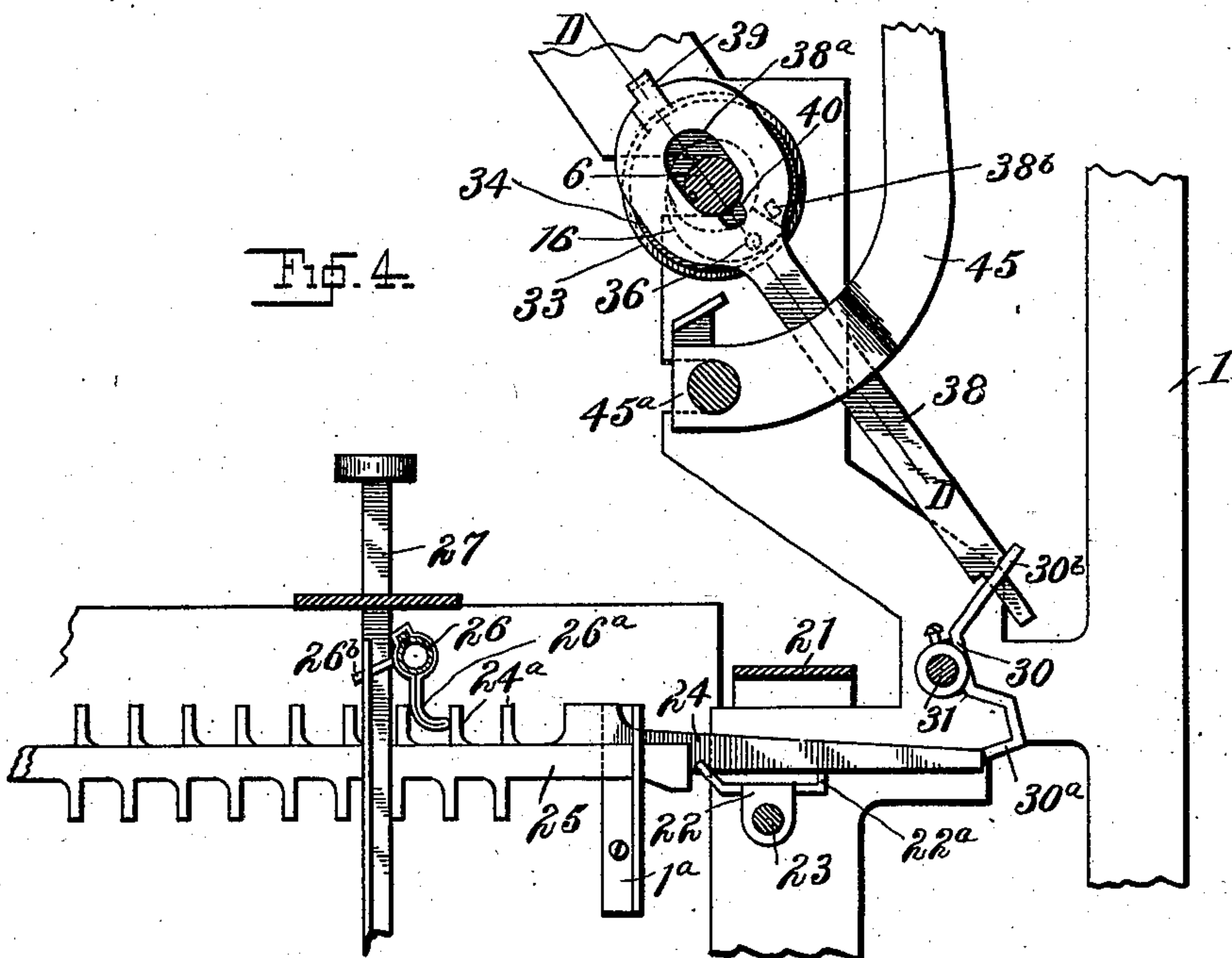


Fig. 4.

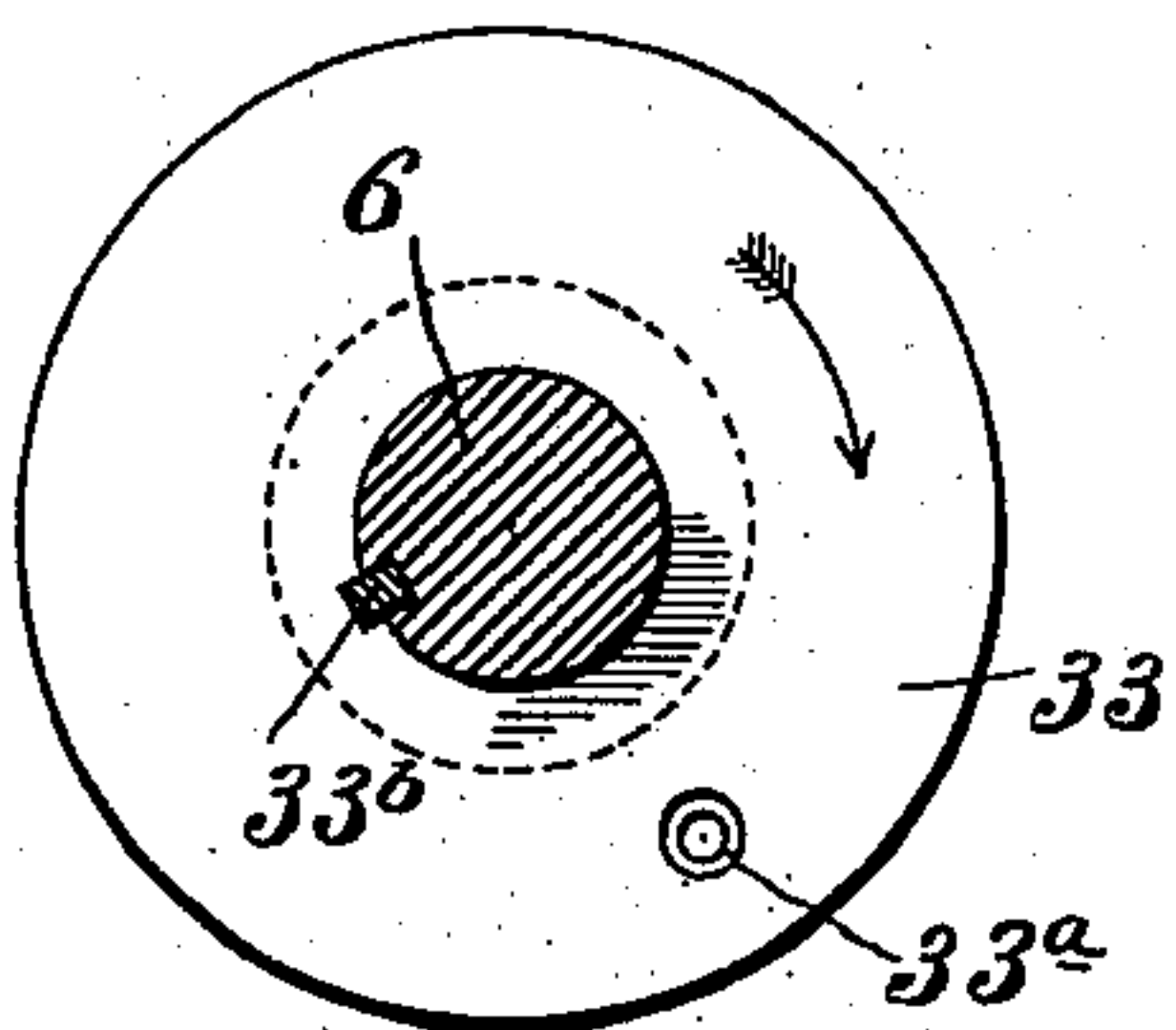


Fig. 5.

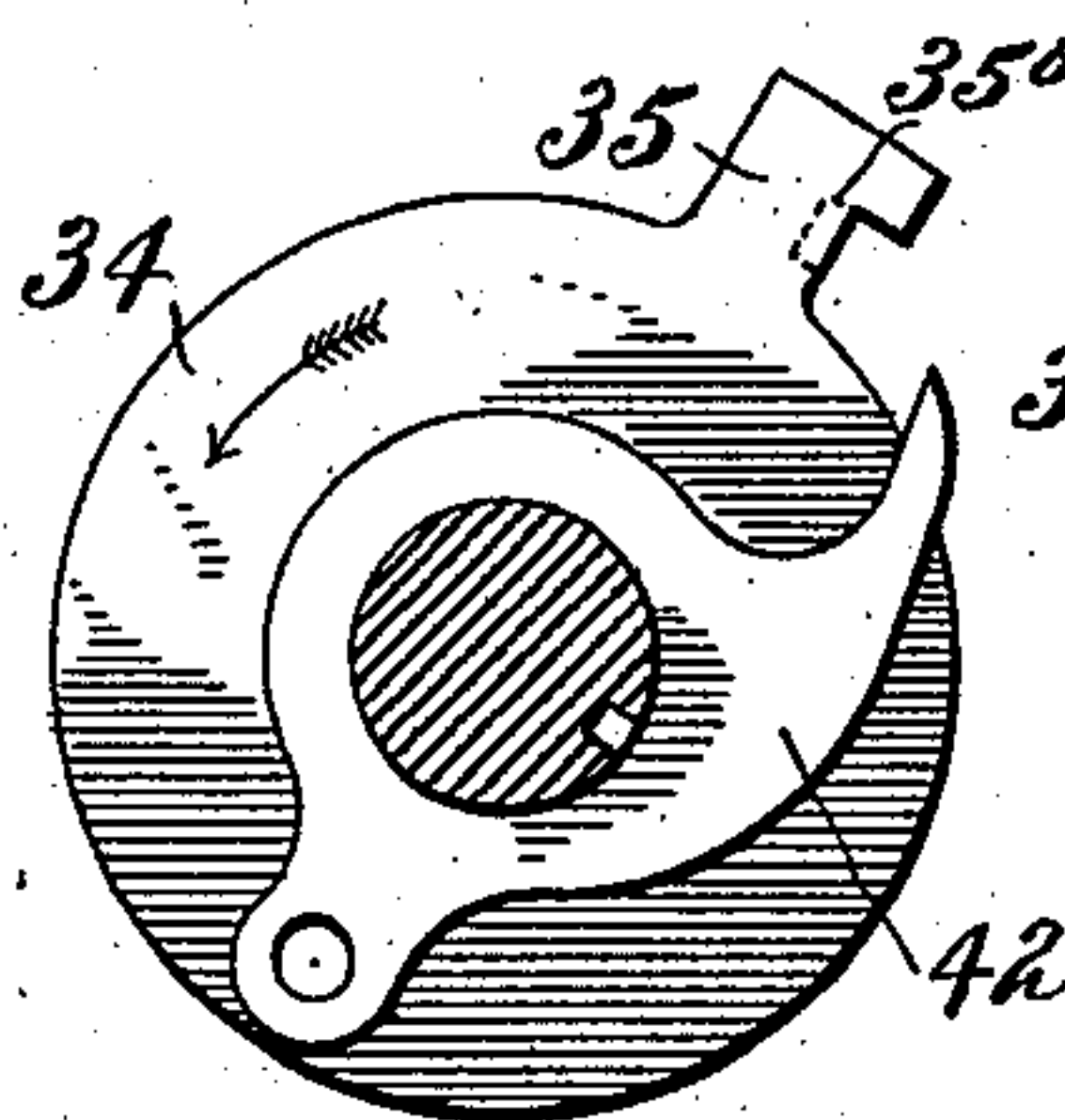


Fig. 6.

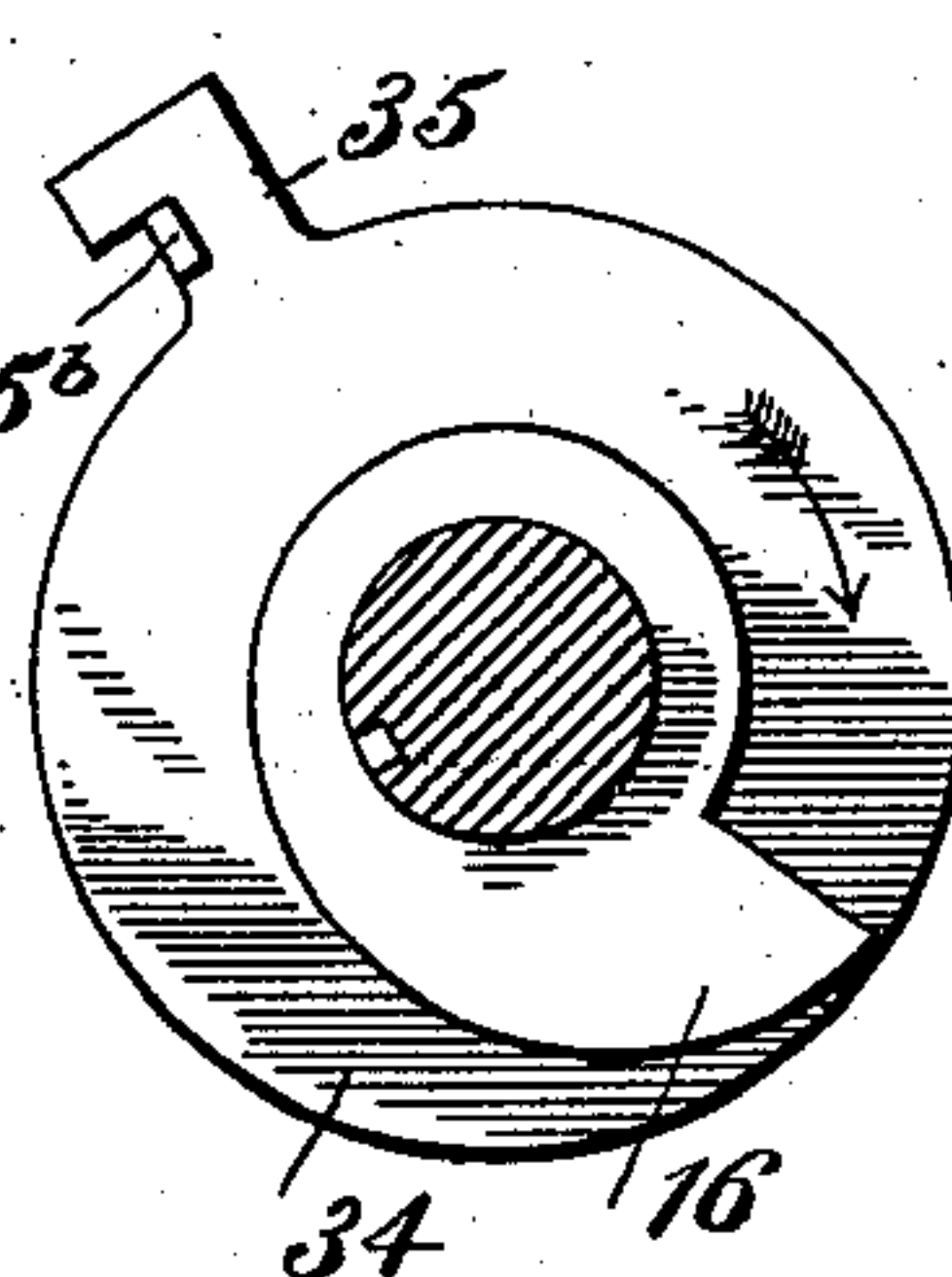


Fig. 7.

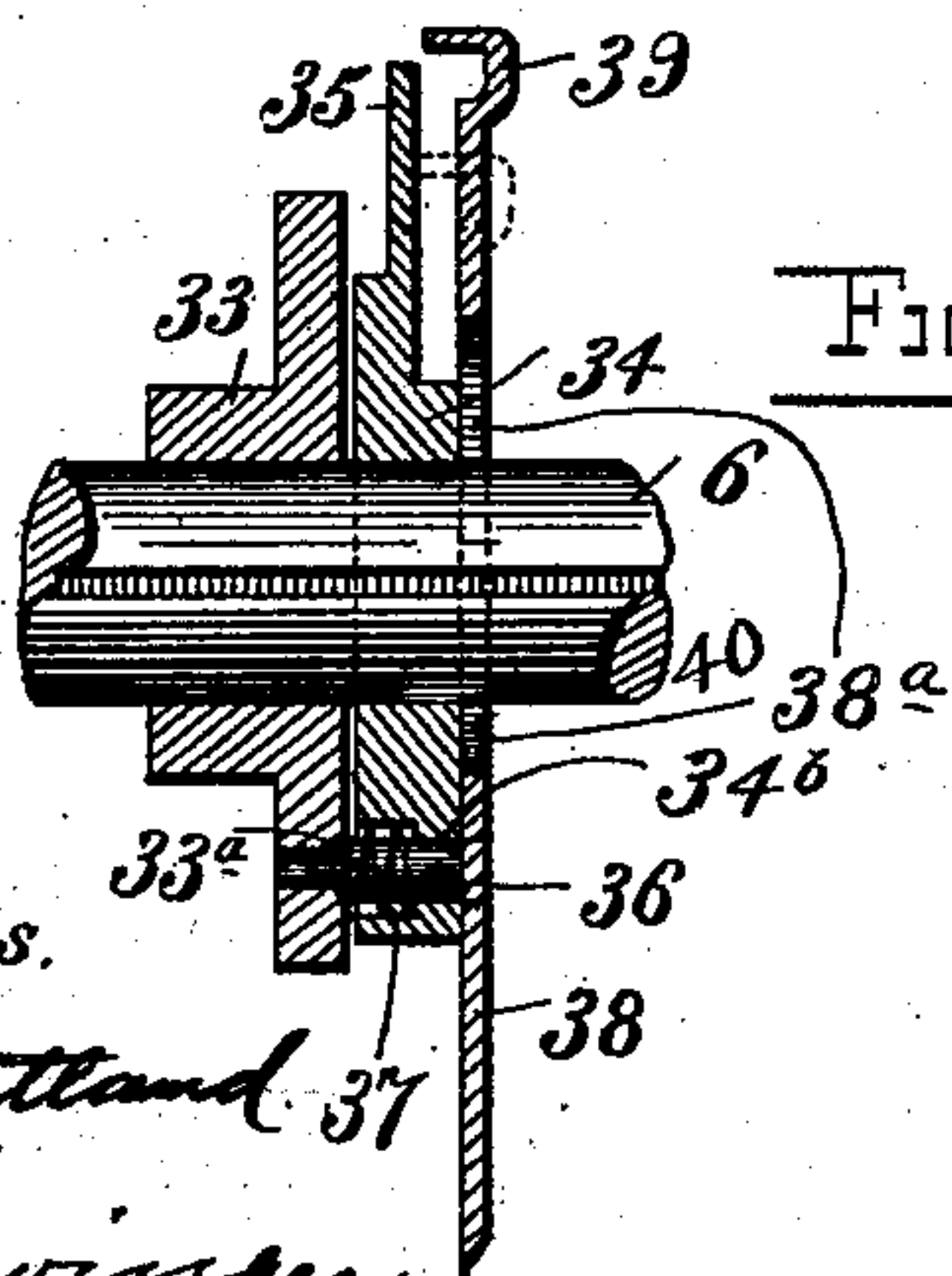


Fig. 8.

Witnesses.
Wm. A. Couttland
A. B. Levinger

Inventors
Isaac S. Dement &
Arthur D. King
By *Arthur D. King*
Att'y.

No. 702,710.

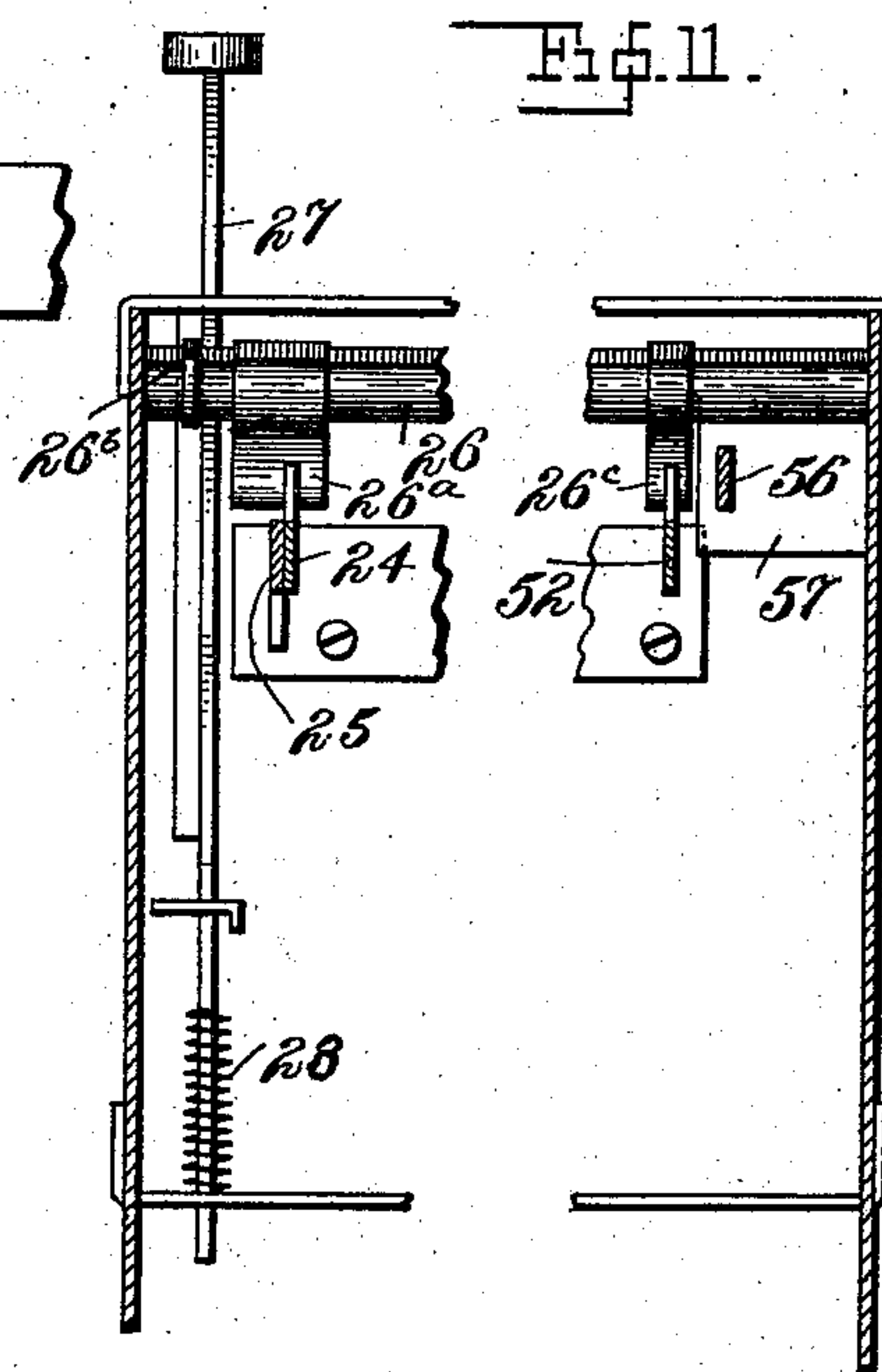
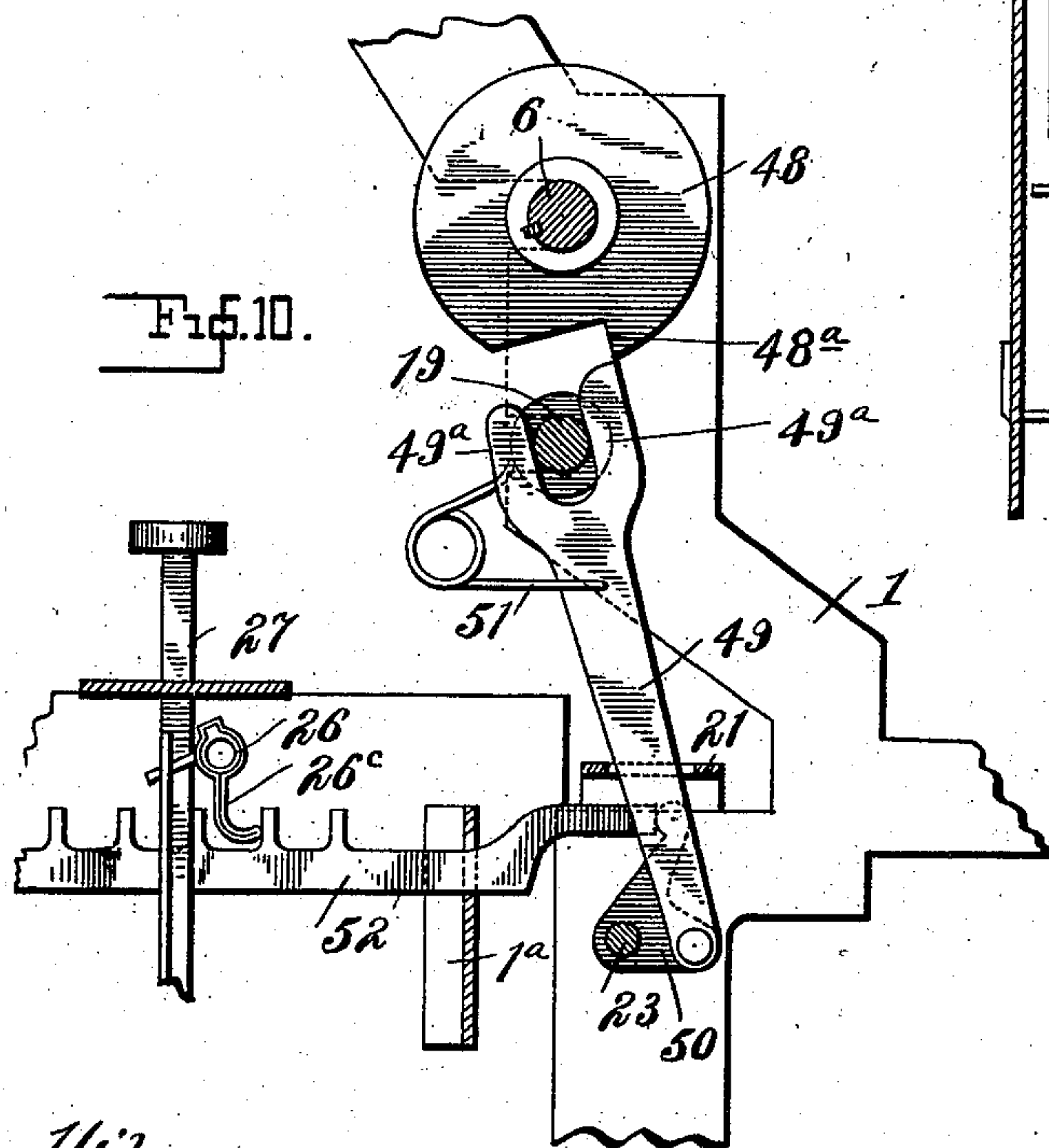
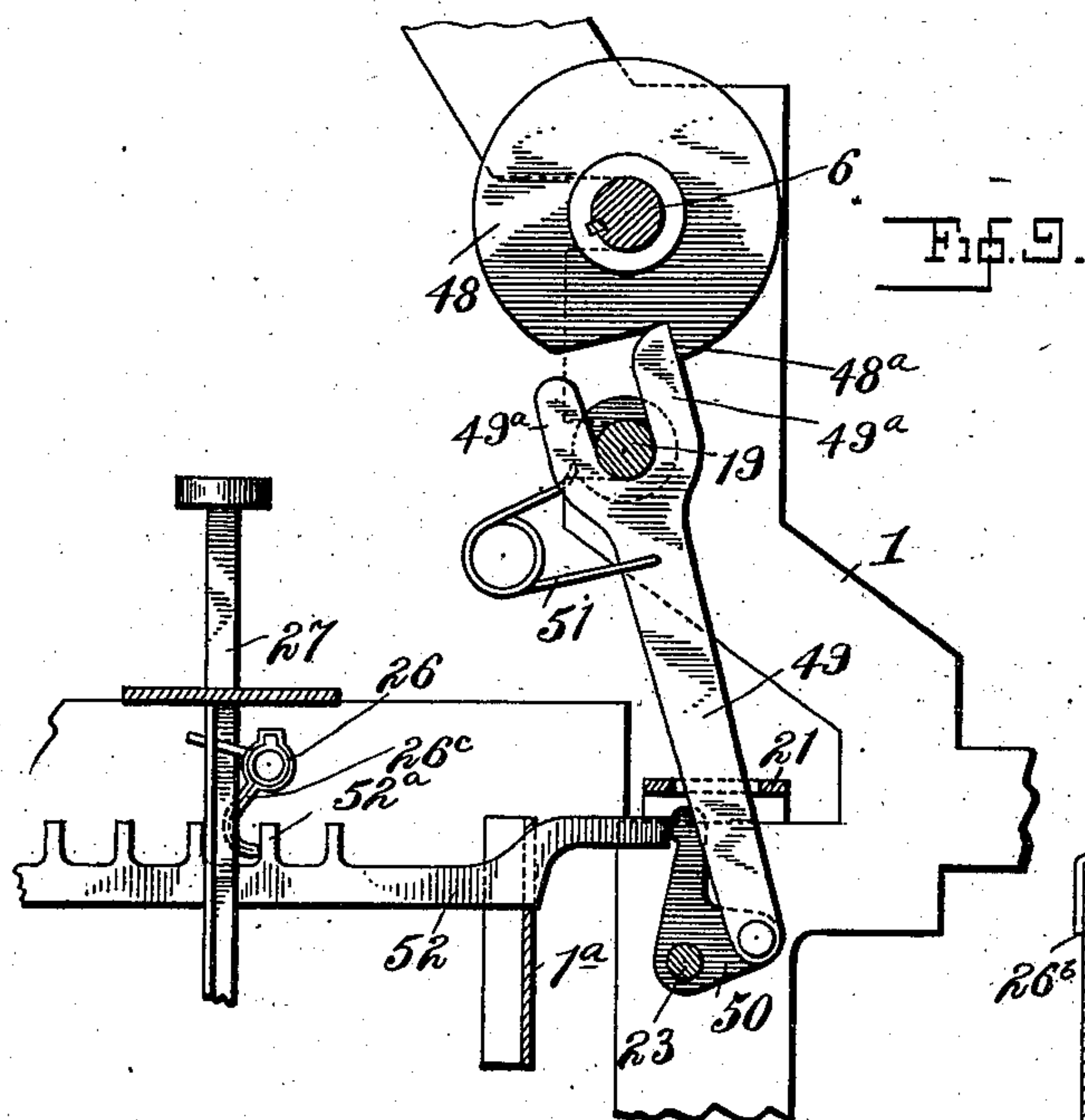
Patented June 17, 1902.

I. S. DEMENT & A. D. KING.
MECHANICAL CASHIER.

(Application filed Jan. 4, 1901.)

(No Model.)

6 Sheets—Sheet 5.



Witnesses.
Wm. A. Courtland
A. B. Levinger

Inventors
Isaac S. Dement
Arthur D. King
By King & Dement
Att'y.

No. 702,710.

Patented June 17, 1902.

I. S. DEMENT & A. D. KING.
MECHANICAL CASHIER.

(Application filed Jan. 4, 1901.)

(No Model.)

6 Sheets—Sheet 6.

Fig. 12.

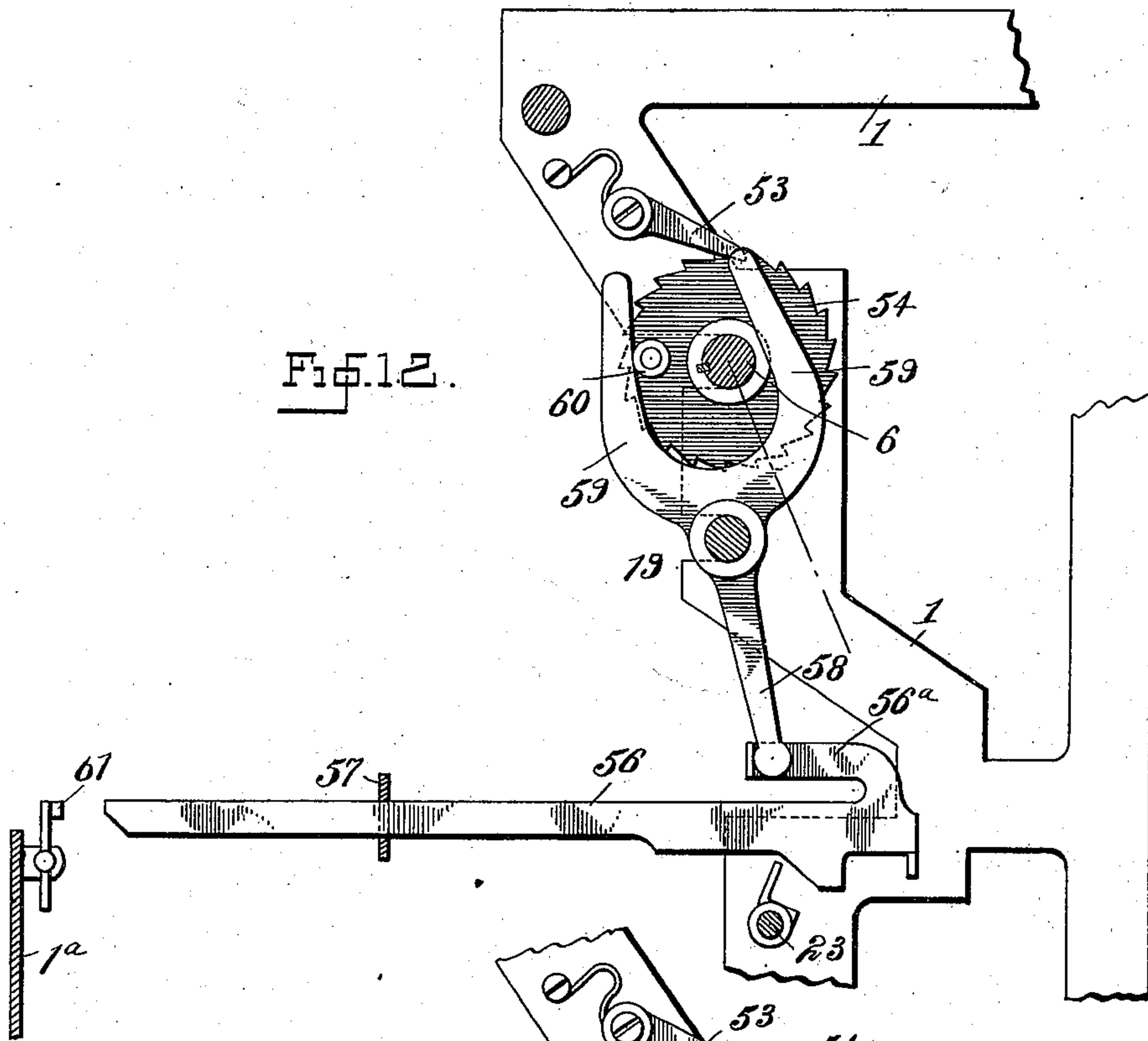
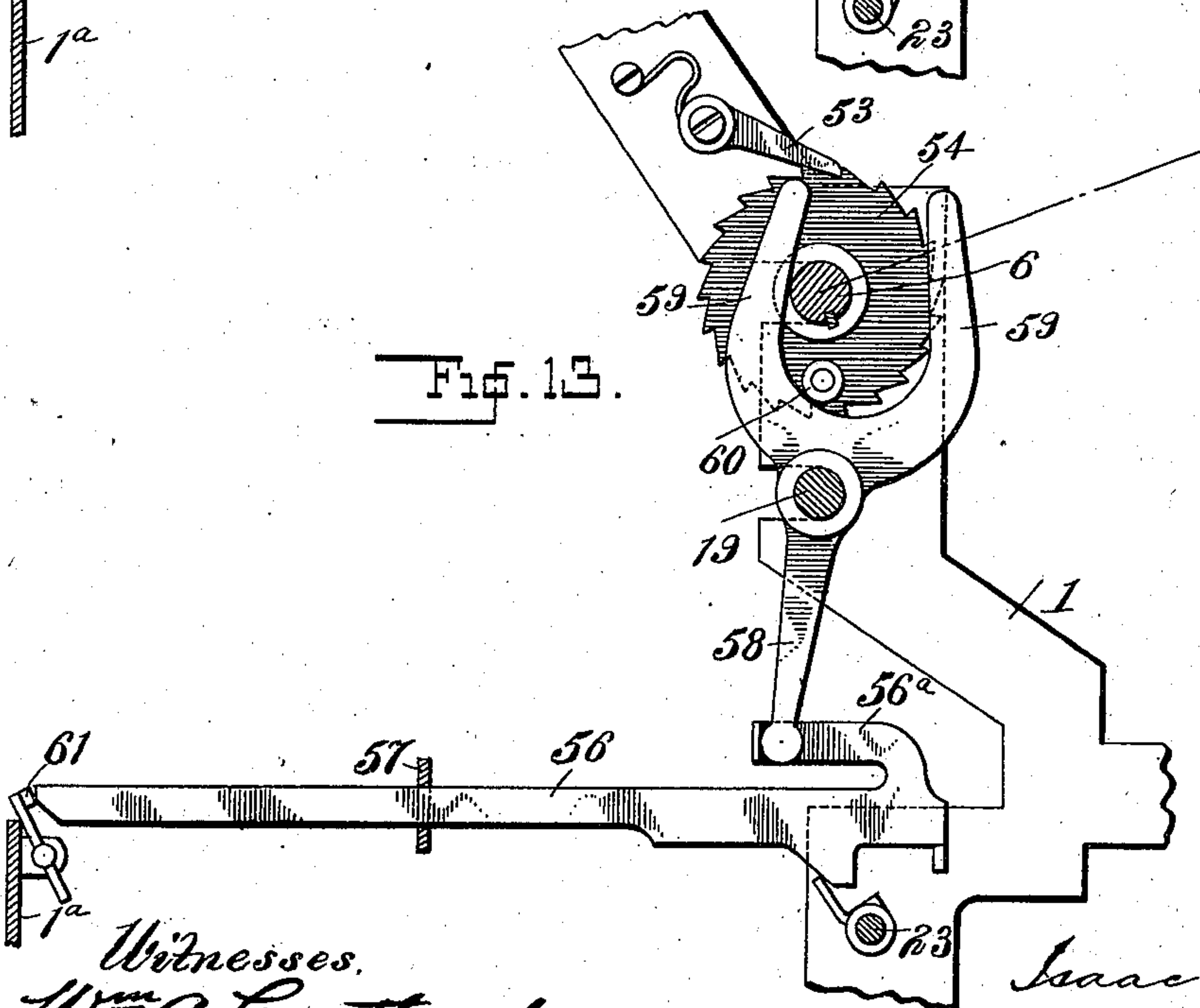


Fig. 13.



Witnesses.
Wm. A. Courtland
H. B. Levinger

Inventors:
Isaac S. Dement
Arthur D. King
by King & Dement
Attys.

UNITED STATES PATENT OFFICE.

ISAAC S. DEMENT, OF CHICAGO, ILLINOIS, AND ARTHUR D. KING, OF GRAND RAPIDS, MICHIGAN, ASSIGNORS, BY MESNE ASSIGNMENTS, TO AMERICAN MECHANICAL CASHIER COMPANY, A CORPORATION OF NEW JERSEY.

MECHANICAL CASHIER.

SPECIFICATION forming part of Letters Patent No. 702,710, dated June 17, 1902.

Application filed January 4, 1901. Serial No. 42,081. (No model.)

To all whom it may concern:

Be it known that we, ISAAC S. DEMENT, residing at Chicago, in the county of Cook and State of Illinois, and ARTHUR D. KING, residing at Grand Rapids, in the county of Kent and State of Michigan, citizens of the United States, have invented certain new and useful Improvements in Mechanical Cashiers, of which the following is a specification.

10 This invention relates to improvements in mechanical cashiers, and particularly to improvements in a cashier of the type shown and described in Patent No. 618,932, granted to Isaac S. Dement and Charles F. Bassett February 7, 1899.

15 The object of the present invention is to simplify the construction of certain of the controlling and operating mechanisms of a cashier such as described in said patent, particularly the devices which are termed in said patent the "controllers" and the mechanism connected therewith.

20 In the present invention the operation of the cash-receptacles by the controller is direct and positive, and a separate operating device is provided for turning back the cash-receptacle to deliver change, and this operating device is also positive and direct in operation and all looseness and unreliability in action
30 of the parts are obviated.

In the accompanying drawings, Figure 1 is an end elevation, with parts removed, of so much of the cashier as relates to the present invention. Fig. 2 is a front elevation of the
35 machine with the lower part in section on line A A in Fig. 1. Fig. 3 is a vertical section on the line B B in Fig. 2, the handle, however, being shown in position on the shaft, so as to more clearly show the operation. Fig. 4 is a
40 section on the line C C in Fig. 2, showing certain clutch mechanism for the controller and its operating devices. Figs. 5, 6, and 7 are detail views of the parts of such clutch mechanism. Fig. 8 is a section of said clutch mechanism on the line D D in Fig. 4. Figs. 9 and 10
45 are vertical sections on the line E E in Fig. 2, showing the stop mechanism for the controller in two different positions. Fig. 11 is a vertical section of the key mechanism on

the line F F in Fig. 1 looking toward the
50 front of the machine. Figs. 12 and 13 are vertical sections on the line G G in Fig. 2, showing the operating means for the resetting devices in two different positions.

The general construction of the cashier is
55 substantially as shown in the patent above referred to, and we have herein shown only such parts of same as bear directly or indirectly on the present invention. Thus most of the casing, the indicator mechanism, and of the key
60 and permutation mechanisms are omitted. Moreover, since as far as this invention is concerned each of the elements comprising a cash-wheel with its corresponding controller and operating device is identical with the
65 others, we have shown only one of such elements, together with certain operating mechanism and resetting means at one end of the machine which is common to all of such elements.
70

1 is the frame of the machine, made of suitable shape to support the various parts. On a shaft 2, supported in this frame, are loosely mounted the cash-receptacles, one of which is shown at 3, the casing 14 of the machine
75 being provided with an aperture 14^a, located opposite each cash-wheel, so as to expose one receptacle of such wheel at a time. Each cash-receptacle 3 is operated and controlled to receive and deliver the cash by certain
80 controller and operating mechanisms. In this case we have shown such mechanisms as comprising two separately-mounted parts—namely, a controller, key, or lever 4, mounted on a shaft 5, and operating mechanism
85 mounted on a shaft 6, said shafts 5 and 6 being parallel to cash-wheel shaft 2. The controller-lever 4 carries an operating key or button 4^a and is adapted to engage, by a latch or pivoted finger 8 at its end, the teeth 9 on
90 the cash-wheel receptacle, such teeth serving also as a means for retaining the coin in place on the wheel. A spring 8^a serves to hold the finger 8 in extended position, with its shoulder or lug 8^b engaging the bottom of lever 4. 95
Lever 4 also carries a spring-latch 10, engaging a shoulder 11^a on a sliding catch or detent 11, sliding in guides 12^a on the under

side of the cash-delivery trough 12 and having a notched portion 11^b engaging the teeth 9 in the cash-receptacle, a spring 13 serving to draw the detent into such engagement. When lever 4 is depressed by key 4^a, its projection 10 withdraws detent 11 from the cash-wheel and its pivoted latch or finger 8 engages one of the teeth of the cash-wheel to turn it the space of one cash-receptacle and carry the exposed cash-receptacle forward, so as to withdraw same from exposed position. A spring 15, attached to a normally stationary part 45^a and to a link bar or rod 17, pivoted to lever 4, serves to return the said lever, the return movement being finally arrested by a lug 4^b striking the cash-delivery trough 12. The link 17 serves to connect the controller with the tumbler or permutation mechanism, so as to determine or control the operation of such mechanism in accordance with the principle of operation set forth in the patent aforesaid, the said link 17 being pivoted to one end of a lever 18, pivotally supported by rod or shaft 19, and pivoted at its other end to a link 20, whose lower end passes through a fixed guide-plate 21 into position to engage with one arm 22^a of a rocking sleeve 22, mounted on a shaft 23 and adapted to control the operation of the selector-bars or tumblers. Said tumblers consist of two parts 24 25, connected with capacity of relative movement, but both adapted to slide in guide-plates 1^a, part 24 being provided with lugs or projections 24^a, engaged by the arms 26^a of the permutation-shafts, one of which is shown at 26, said shafts extending over the tumblers and engaging by arms 26^b with the purchase-keys, one of which is shown at 27. Said keys are provided with return-springs 28, and may also be provided with locking devices, as in the patent above referred to. The tumbler-bar 24 extends back over a lip or arm 22^b of permutation-sleeve 22 and into proximity of an arm 30^a of a sleeve 30, mounted loose on a shaft or rod 31, said sleeve also carrying an arm 30^b, adapted to control the operation of the operating mechanism for the cash-receptacle to cause the latter to be turned back to deliver change under the proper conditions.

The operating mechanism for turning back the cash-receptacle is mounted, as above stated, on a shaft 6, separate from the shaft carrying the controllers, this shaft 6 carrying the operating-handle 32, by which the cash-delivery operation, as well as resetting, is effected, and such operating mechanism comprises a disk 33, fastened on said shaft by a spline 33^b, an operating device in the form of a disk 34, loose on said shaft and provided with a tooth or lug 35, adapted to engage the teeth 9 of the cash-wheel to effect the return movement thereof, and clutching means adapted to connect or disconnect parts 33 34, according to whether that particular cash-wheel under the existing conditions of controllers and of the purchase-keyboard is to be operated to deliver change. Such clutch-

ing means, Figs. 4, 5, and 8, consists of a pin 36, sliding in a hole 34^b in disk 34 and pressed toward disk 33 by a spring 37, so as to force the end of said pin 36 into a hole or depression 33^a in disk 33 when such hole is opposite the pin. The end of pin 36 and the depression 33^a are beveled or rounded, so that as disk 33 starts to turn from this position it tends to cause the pin to ride out of the hole and disengage the clutch. A controlling bar or plate 38, guided by its slotted portion 38^a sliding over the shaft 6 and by its lower end engaging with the arm 30^b of lever 30 aforesaid, carries a detent-lug 39, adapted to engage a lip 35^b on the lug 35 of the operating device to stop same, and a slotted portion 40, adapted to cooperate with clutch-pin 36 to control the engagement and disengagement of the clutch. If said bar 38 is in raised position, its slot 40 is above the pin 36, as shown in full lines in Fig. 8, so that as the disk 33 rotates the pin 36 cannot be pressed out of hole 33^a, owing to the other end of said pin bearing against the controlling bar or plate 38, and the disk 33 under these circumstances carries a disk 34 around with it; but if bar 38 be lowered its slot 40 will come into the path of pin 36 and allow the latter to be pressed out in the rotation of disk 33, and the latter disk 33 is free to rotate without rotating the operating device 34. Disk 34 carries, beside the lug 35, a cam 42, (see Fig. 6,) adapted to engage an arm 43^a, extending from a sleeve 43, loose on shaft 5, said sleeve also carrying a tooth or projection 43^b, adapted to engage a lug 11^b (see Fig. 2) on the sliding rod 11, so that when said cam operates the arm 43^a the tooth 43^b will press the slide 11 to release the cash-wheel, so that as the operating device 34 rotates its lug 35 can turn the cash-wheel one step by engagement with a tooth 9 of same. The detent or dogging means 11 serves to lock the cash-wheel from movement in either direction, and it may be released, as above described, either from the controller means 4 or from the operating means 34. The lug 35 also serves to operate the ejector-lever 45, which is pivoted on the shaft 19 so as to be free to move back and forth between the two halves of the cash-wheel, and carries an arm or tail 46, engaged by said lug 35, to throw the lever 45 forward between the cash-wheel sides to eject the cash. A part 45^a of the ejector-lever 45 serves for attachment of controller-spring 15, as above stated. A cam 16, fast on disk 34, is adapted to engage a lug 38^b on the controlling-bar 38 to depress said bar and restore it to normal position after each operation. These various operations of the operating mechanism are effected by the handle 32, fast on the shaft 6, the disk 33 rotating with this shaft, but only carrying the operating-disk 34 with it when the corresponding controller-bar 38 is in elevated position, and the position of the controller-bar is in turn dependent on the action of the tumblers as controlled by the controllers, pur-

chase-keys, and permutating devices. The shaft 6 is normally locked from rotation by certain locking means, consisting of a disk 48 with a notch 48^a engaged by a slide 49, (see Fig. 9,) which has a fork portion 49^a engaging over the shaft 19 and sliding through a slot in fixed frame-plate 21, the lower end of said slide being pivoted to a lever 50, pivotally mounted on the rod 23, carrying the permutating sleeves 22. A spring 51 tends to throw the slide 49 into engagement with said notch 48^a. An unlocking slide or tumbler 52, arranged to slide in the frame-pieces 1^a and having lugs 52^a engaged by arms 26^c on shafts 26, operated by the units purchase-keys, is adapted to engage at its rear end with one arm of the lever 50, whose other arm is connected to the locking-slide 49. Depression of any units purchase-key causes one of the shafts 26 to rotate and the tumbler-bar 52 to move backward, thus turning the lever 50 and causing slide 49 to be withdrawn from the locking-disk 48, as shown in Fig. 10. Pawl 53, pivoted to a fixed support, engages a ratchet-wheel 54, fast on shaft 6, so as to prevent back movement of said shaft.

Our invention includes an improved means for operating the resetting-bar 56, which is adapted to perform various resetting operations required by the register and permutating mechanism. Said bar slides in fixed guide 57 and has an arm 56^a embracing the end of a lever 58, pivoted on shaft 19 and carrying at its upper end a fork 59, engaged by a pin or stud 60 on the ratchet-wheel 54, so that as the shaft 6 rotates said stud will first strike one arm of the fork to throw the resetting-bar one way, as shown in Fig. 13, and then strike the other arm of the fork to return the said bar, as shown in Fig. 12. A pivoted plate 61 is engaged by the bar 56 to return certain tumblers to normal position. This pivoted plate 61, as shown in Fig. 1, extends along in front of all of the key-operated slides 25 and its lower portion is adapted to engage a downwardly-projecting portion or lug of said slides. Thus when any slide is operated it will move the lower part of plate 61 forward and the upper part of said plate backward, so that when the resetting-bar 56 next operates, as above described, it will engage said plate, throwing the under part of same backward and driving back any slide 25 that may have been operated.

Eccentric 62 with link 63 and lever 64 are parts of the operating mechanism for the register and recorder, which is operated from the shaft 6, but is not shown herein, as it forms no part of our present invention.

The operation of the above-described mechanism is as follows: When the operator, having deposited the money in the receptacle of the cash-wheel 3, depresses the controller-lever 4, the projection or lug 10 on said lever strikes the slide 11 and moves it to the position shown in full lines in Fig. 3, thus releasing the cash-wheel. At the same time the

pivoted end piece or finger 8 of the said lever 4 engages a tooth 9 of the cash-wheel to turn the wheel forward one step, and thus remove the cash deposit from the opening. Finally, as the controller-lever 4 continues this movement its projection 10 passes off of the shoulder 11^a of the slide 11, as shown in dotted lines in Fig. 3, and the slide is snapped back by spring 13 into engagement with the next tooth of the cash-wheel. When released, the controller 4 is thrown back by spring 15, its pivoted finger yielding to allow it to pass the tooth 9. Assuming that a purchase has been made, the cash received being deposited, as just explained, and that the operator has depressed the proper purchase-keys—for example, the key 27 shown in the drawings—operation of this purchase-key will cause operation through shaft 26 of unlocking-slide 52, so as to release said slide from disk 48 and leave the operating-shaft 6 free to rotate. The operator then turns the handle 32 one complete rotation, and if the controller and purchase-key operation has been such as to raise the controlling-bar 38 the operating-disk 34 will remain clutched to the shaft 6 and will cause delivery of change. The lug 39 on the controlling-bar 38 will also be raised out of the path of projection 35^b on the operating-disk 34. As the handle 32 rotates it passes from normal position (shown in full lines in Fig. 3) to dotted position 32', at which moment the lug 35 on disk 34 begins to engage a tooth 9 of cash-wheel 3, as shown at 35', and meanwhile the cam 42 has moved arm 43^a and projection 43^b to push out the catch or slide 11 and release the cash-wheel. Further movement of the handle then turns the cash-wheel back to bring the receptacle last charged with cash back to the delivery-point, and then when the handle reaches position shown at 32'' in dotted lines the lug 35, as shown at 35'', engages the tail 46 of lever 45 to throw the ejector-lever forward and eject the change. Finally the handle comes around again to the full-line position with lip 35^b stopped by lug 39 on the controlling-bar 38, the said bar having been allowed to fall by reason of the resetting of all the register and permutating mechanisms to normal position by the resetting-bar 56, the operation of which has taken place, as above described, during the rotation of shaft 6. As the shaft 6 completes its rotation the slide 49, which has also been released owing to the operation of the resetting means, engages the notch in disk 48 to stop said shaft in normal position. If the operation of the controllers and purchase-key mechanism has been such as to leave the controller-bar 38 in depressed position, then while the shaft 6 will be unlocked and may be rotated by the operator its rotation will not affect this particular cash-wheel, owing to disengagement of the clutch, as above explained.

It will be seen that the above-described construction provides for the operation of the

ejector-lever for each cash-receptacle individually—that is, such lever is only operated when the corresponding cash-receptacle wheel is operated to bring cash to ejecting position.

5 Having thus described our invention, the following is what we claim as new therein and desire to secure by Letters Patent:

1. In a mechanical cashier, the combination with the cash-receptacle, of a locking-
10 dog preventing its operation in either direction, and a controller-key and an operating means, adapted to move the cash-receptacle in opposite directions and both adapted to release the said dog to permit movement of the
15 cash-receptacle.

2. In a mechanical cashier, the combination with a cash-receptacle and a casing having a cash-opening, of a controller-key arranged to engage the cash-receptacle to move
20 the deposited cash away from said opening and means for moving said receptacle in reverse direction to move the deposited cash back to the opening.

3. In a mechanical cashier, the combination with a cash-wheel of a pivoted controller-key provided with a yielding portion arranged to engage the cash-wheel to move it in one
25 direction of movement of the key, but allow return movement of the key without operation of the cash-wheel, and means for moving the cash-wheel in the other direction independently of the controller-key.

4. In a mechanical cashier, the combination with a cash-wheel having teeth, of a pivoted controlling key-lever arranged to engage
35 said teeth to turn the cash-wheel in one direction only, an operating device adapted to engage said teeth to turn the cash-wheel in reverse direction, and means for locking the
40 cash-wheel from movement in either direction.

5. In a mechanical cashier, the combination with a cash-receptacle wheel and means for moving same to expose or withdraw a receptacle, of means for locking the cash-receptacle wheel in the position to which it is
45 moved.

6. In a mechanical cashier, the combination with a cash-receptacle and locking means
50 for same, of a controller arranged to move the cash-receptacle and connected to the locking means to release same.

7. In a mechanical cashier the combination with a cash-wheel and a locking-catch engaging same, of a controller-key arranged to
55 engage the locking-catch to release the cash-wheel and also adapted to engage the cash-wheel to move same after such release.

8. In a mechanical cashier, the combination with a cash-wheel and a locking-catch engaging same, of a controller-key arranged to engage the cash-wheel to move same and provided with a projection engaging the locking-catch and arranged to release the cash-
60 wheel to allow it to be moved by the controller, and to then release the catch to allow it to again lock the cash-wheel.

9. In a mechanical cashier, the combination with a cash-receptacle and a controller means adapted and arranged to move same
70 in one direction, of operating means, separate from the controller means, for moving the cash receptacle in the other direction.

10. In a mechanical cashier, the combination with a cash-receptacle and a casing having an opening opposite the cash-receptacle, of a controller means adapted to move said
75 receptacle, away from said opening, and operating means, separate from the controller means for moving the receptacle back to said
80 opening.

11. In a mechanical cashier, the combination with a cash-receptacle wheel and a controller means adapted to move same to withdraw a receptacle thereof, of operating means,
85 separate from the controller means to move the said wheel to expose such receptacle.

12. In a mechanical cashier the combination with a cash-receptacle, of controller means adapted to move the receptacle in one
90 direction, operating means separate from the controller means to move the said receptacle in opposite direction, and locking means for said operating means controlled by the controller means.
95

13. In a mechanical cashier, the combination with a cash-receptacle, controller means adapted to move the receptacle to withdraw same, purchase-key mechanism, operating
100 mechanism, separate from the controller means for moving the cash-receptacle to expose same, and mechanism controlled by the controller means and by the purchase-key mechanism and controlling the operating
105 mechanism.

14. In a mechanical cashier the combination with a cash-receptacle wheel and its controller means adapted to move same in one
110 direction, of an operating means separate from said controller means for moving said wheel in reverse direction comprising an operating-shaft, an operating device loose on said shaft, clutching means for clutching said operating device to the shaft, and connecting
115 mechanism whereby operation of said controller means controls the said clutching means.

15. In a mechanical cashier, the combination with a cash-receptacle wheel, of an operating means for same, comprising a shaft, an operating device loose on said shaft and a
120 clutching means for clutching said operating device to said shaft comprising a spring-pin on one of said parts adapted to engage the other part, and controlling means adapted to engage said spring-pin to control the engagement
125 of said clutching means.

16. In a mechanical cashier, the combination with a cash-receptacle wheel, controller means adapted to move said wheel in one direction and a purchase-key mechanism, of an
130 operating device for the receptacle-wheel in reverse direction, an actuating-shaft therefor, a clutch connection between said shaft and operating device, mechanism controlled

by said controller and by the purchase-key mechanism and means controlled by the said mechanism to control the said clutch.

17. In a mechanical cashier, the combination with a cash-receptacle wheel, of an operating means therefor comprising a shaft arranged to rotate in one direction only, and provided with an operating-handle, means operated by the rotation of said shaft to turn said cash-receptacle wheel, a lock for said cash-receptacle wheel and means controlled by said shaft to release said lock.

18. In a mechanical cashier, the combination with a cash-receptacle wheel, of operating means therefor, comprising a shaft, a handle on said shaft and means operated by rotation of the shaft to turn the cash-receptacle wheel, means for preventing backward movement of the shaft, a lock for said cash-receptacle wheel and means controlled by said shaft to release said lock.

19. In a mechanical cashier, the combination with a cash-receptacle wheel, of operating means therefor, comprising a shaft, a handle on said shaft and means operated by rotation of the shaft, to turn the cash-receptacle wheel, pawl-and-ratchet means for preventing backward movement of the shaft, locking means for preventing movement of the cash-receptacle wheel in either direction, and means controlled by the said shaft to release said locking means.

20. In a mechanical cashier, the combination with a cash-receptacle wheel, of operating means therefor, comprising a shaft, a handle on said shaft and means operated by rotation of the shaft to turn the cash-receptacle wheel, locking means for preventing such rotation of the shaft and means for releasing such locking means.

21. In a mechanical cashier, the combination with a cash-receptacle wheel and purchase-key mechanism, of operating means for the cash-receptacle comprising a shaft and means operated by rotation of said shaft to turn the cash-receptacle wheel, detent means for preventing such rotation of the shaft and means operated by the purchase-key mechanism to release such detent means.

22. In a mechanical cashier, the combination with a cash-receptacle wheel and a purchase-key, of operating means for the cash-receptacle comprising a shaft and means operated by rotation of said shaft to turn the cash-receptacle wheel, detent means for preventing such rotation of the shaft, a slide operating said detent means and a shaft provided with means adapted to engage the said slide and with means engaged by the purchase-key, to release the operating-shaft for the cash-receptacle, upon operation of a purchase-key.

23. In a mechanical cashier, the combination with a plurality of cash - receptacle wheels, of operating devices adapted to move

the wheels to position for ejecting cash, and comprising an operating-shaft, operating devices loose on said shaft, and clutching means for connecting the said operating devices to said shaft, and ejecting devices operated independently and respectively by said operating devices.

24. In a mechanical cashier, the combination with a plurality of cash - receptacle wheels, of an operating-shaft, and operating devices carried thereby and adapted to engage the cash-receptacle wheels to move the same to ejecting position, and ejecting devices engaged respectively and operated independently by such operating devices.

25. In a mechanical cashier, the combination with a cash-receptacle wheel, of an operating-shaft and operating device carried loosely thereby and adapted to engage the cash-receptacle wheel, clutching means adapted to connect said shaft and operating device, and a controlling device adapted to engage the said operating device to stop same and to engage the said clutching device to connect same.

26. In a mechanical cashier, the combination with a plurality of cash - receptacle wheels, of operating devices adapted to move the said cash-receptacle wheel to ejecting position, independent ejecting devices for the respective wheels, a shaft operating all of said ejecting devices, and clutch connection between said shaft and ejecting devices controlled by said operating devices.

27. In a mechanical cashier, the combination with a cash-receptacle wheel and locking means therefor, of an operating-shaft, a cam operated by said shaft and means operated by said cam to release the aforesaid locking means, and an operating device also operated by said shaft and adapted to operate the cash-receptacle.

28. In a mechanical cashier, the combination with the cash-receptacle, its operating mechanism comprising a rotatable shaft and handle and purchase-key mechanism, of resetting means for the purchase-key mechanism, operating means for said resetting means and means carried by said rotatable shaft and engaging positively with such operating means to move it alternately in opposite directions in the rotation of the shaft.

29. In a mechanical cashier, the combination with the cash receiving and delivery mechanism, and the purchase-key mechanism, of resetting means for the purchase-key mechanism, a rotatable operating-shaft and means engaged positively by said shaft in its rotation to move the resetting means alternately in opposite directions.

ISAAC S. DEMENT.

ARTHUR D. KING.

Witnesses:

JAS. BALE,

JAS. LEENHOUTS.