

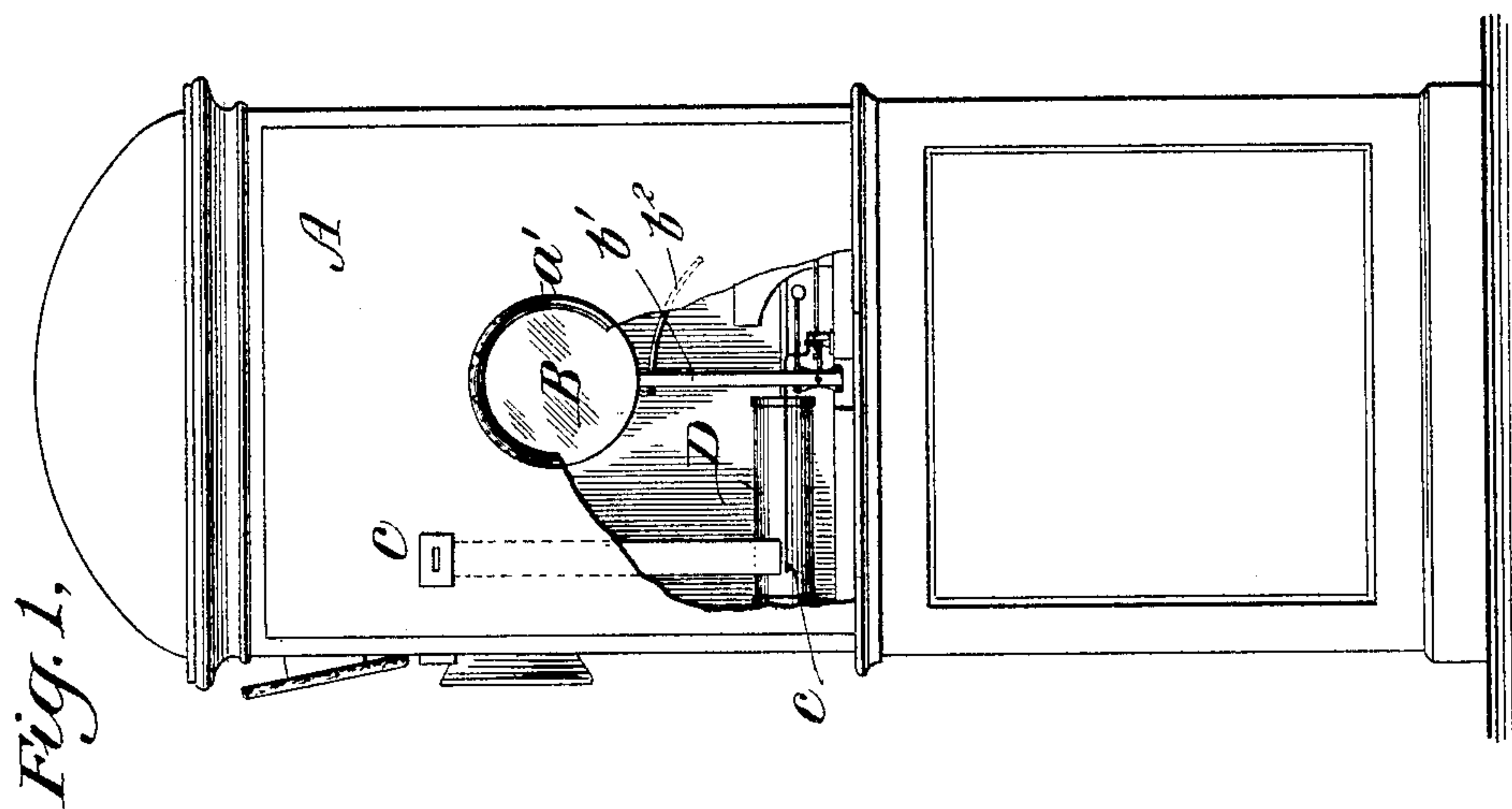
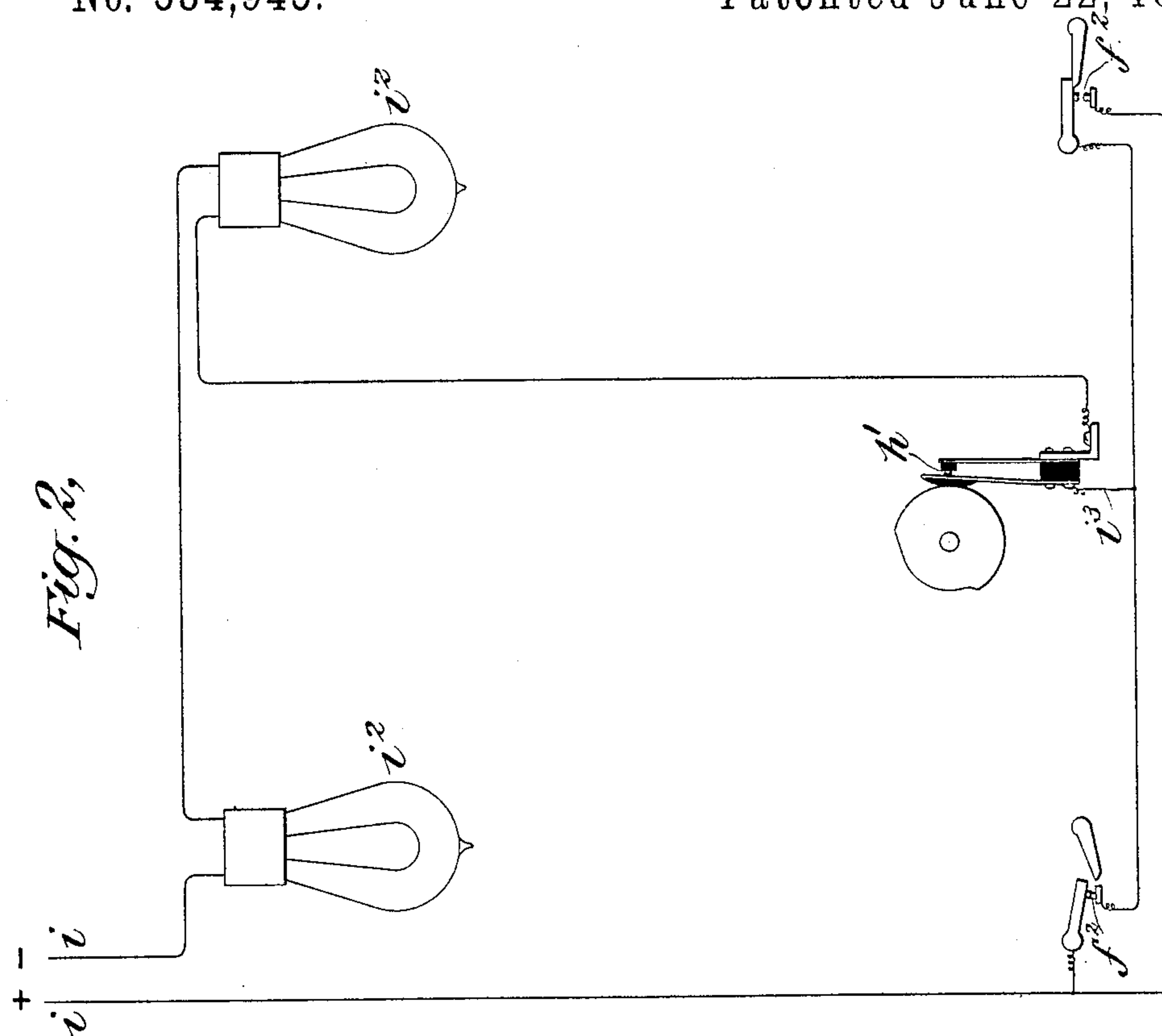
(No Model.)

2 Sheets—Sheet 1.

R. LO FORTE.  
AUTOMATIC COIN ACTUATED MACHINE.

No. 584,945.

Patented June 22, 1897.



WITNESSES:

*B. H. Raymond*  
*D. A. Davies*

INVENTOR

*Remigio Lo Forte*  
BY  
*E. N. Dickerson*  
His ATTORNEY

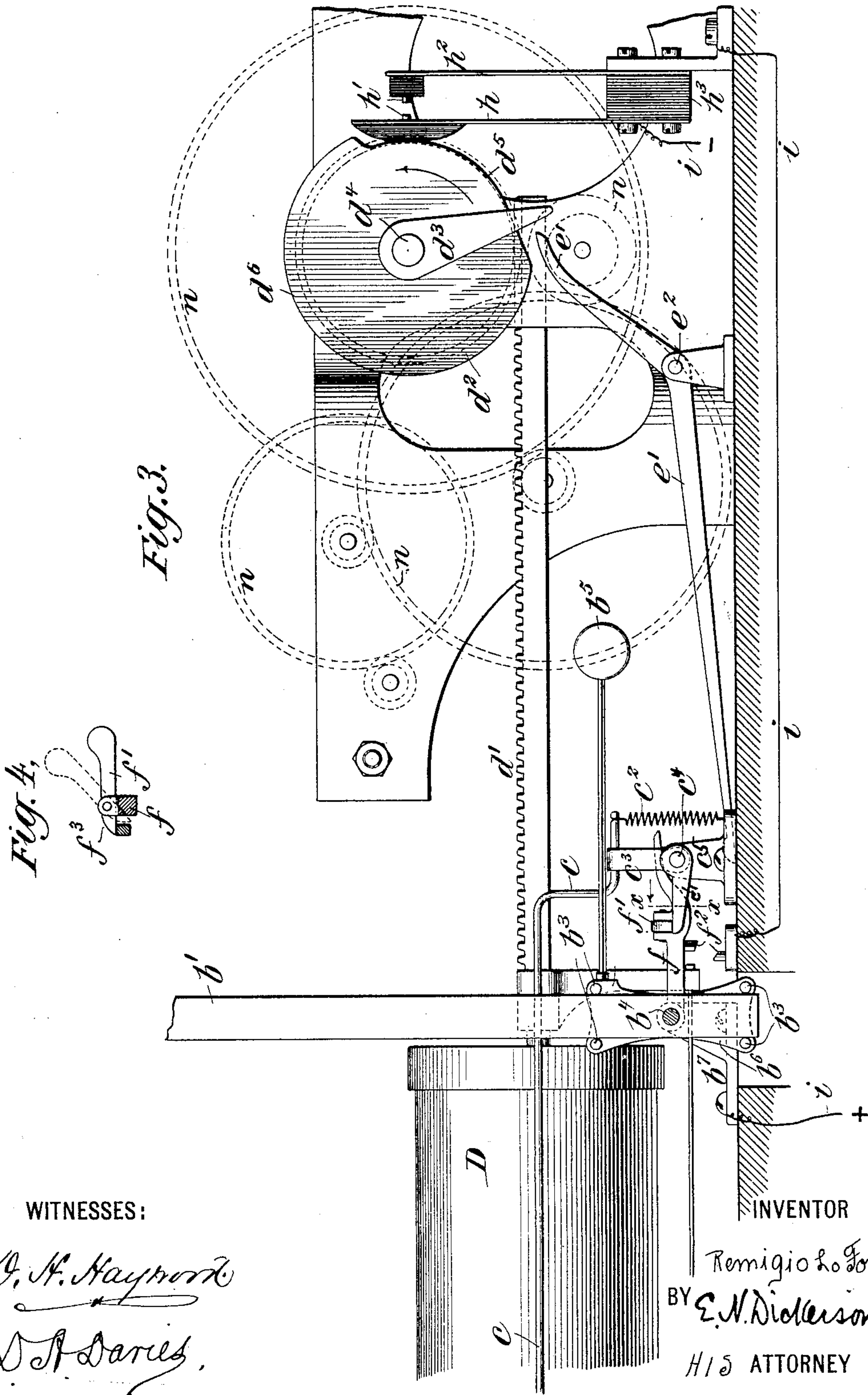
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2 Sheets—Sheet 2.

R. LO FORTE.  
AUTOMATIC COIN ACTUATED MACHINE.

No. 584,945.

Patented June 22, 1897.



WITNESSES:

*G. H. Hayworth*  
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# UNITED STATES PATENT OFFICE.

REMIGIO LO FORTE, OF NEW YORK, N. Y., ASSIGNOR TO THE AUTOMATIC PHOTOGRAPH MACHINE COMPANY, OF WEST VIRGINIA.

## AUTOMATIC COIN-ACTUATED MACHINE.

SPECIFICATION forming part of Letters Patent No. 584,945, dated June 22, 1897.

Application filed January 11, 1896. Serial No. 575,053. (No model.)

*To all whom it may concern:*

Be it known that I, REMIGIO LO FORTE, a citizen of the United States, residing in New York, county and State of New York, have invented new and useful Improvements in Automatic Coin-Actuated Machines, of which the following is a full, clear, and exact description.

This invention relates to that class of apparatus commonly known as "slot-machines," which are set in motion by the weight of a coin deposited on one end of a lever. Machines of this class—such, for instance, as automatic-photographing machines—are usually inclosed in an opaque case and their various parts thus concealed from view.

The object of my invention is to furnish means whereby in addition to the usual functions of such machines their operation may be disclosed to observers desiring to witness the same. This I accomplish by the twofold operation of automatically uncovering an aperture in the case adapted to the purpose and artificially illuminating the interior of the case during the progress of the operation performed by the machine, after which all parts are automatically returned to their normal positions. This dual operation is the result of the actuation of one or more coin-levers by coins deposited in slots specially provided for the purpose and separate and apart from the slot and lever by which the main portion of the machine is started, the object being to increase the revenue ordinarily derived from the stated operation of slot-machines. Further, the numerous and varied movements necessary in an automatic-photographing machine, to which my improvements are particularly applicable, are an object of special interest to observers, and it therefore becomes desirable to furnish means whereby a view of the interior of such machines may be readily obtained and their value enhanced.

My invention is illustrated in the accompanying drawings, in which—

Figure 1 represents a slot-machine and its case with a part of the latter broken away to show my improved mechanism; Fig. 2, an arrangement of electric circuit, contacts, and lamps for illuminating the interior of the

case; Fig. 3, a sectional elevation of my improved apparatus, together with such portions of the main machine as are most intimately connected therewith; and Fig. 4, a section on line  $x x$ , Fig. 3.

Like letters refer to like parts in each figure.

A represents the case of the slot-machine.

B is a shutter or disk normally closing the aperture  $a'$ , through which a view may be obtained of the inside of the case and the apparatus therein contained.

C is the entrance to the slot or chute through which a coin reaches the end of the coin-lever  $c$ .

D is the motor-cylinder for operating the various parts of the machine.

$b'$  is the disk-arm;  $b^2$ , the guide for same when it is moved to uncover the opening  $a'$  in the case A. A piston (not shown) in cylinder D, preferably moved by a fluid under pressure derived from any suitable source, is connected by its rod to the rack  $d'$ . The teeth of the latter mesh with the gears of the wheel  $d^2$ , secured to shaft  $d^4$ , which in turn operates the various parts of the machine represented by wheels  $n n n$  in dotted lines. Coin-lever  $c$  passes through and is secured to the arm  $c^3$ , pivoted on a shaft at  $c^4$  to the base  $c^5$ .

The spring  $c^2$  is secured to the end of coin-lever  $c$ . Shaft  $c^4$  also carries cam  $c'$ , rigidly secured thereto, which normally serves as a support for the trip or detent  $f'$ , which in turn supports the arm  $f$ , working on the axle  $b^4$ . The disk-arm  $b'$  and its controller  $b^6$  are also secured to axle  $b^4$ . From the corners of said controller project four guiding-pins  $b^3$ , between which lies the lower end of the disk-arm  $b'$ , and at its upper end said controller carries weighted lever  $b^5$ .

$e'$  is a bent lever pivoted at  $e^2$ , the long end of which normally rests on the foundation to which the apparatus is secured. Its function is to restore the parts secured to axle  $b^4$  to their normal position after the machine has completed one full operation, which it does by the motion imparted through cam  $d^3$ , rotated by shaft  $d^4$ .

$i i i$  represent an electric circuit containing one or more lamps for illuminating the in-

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terior of the case A whenever my improved mechanism is actuated. Said circuit is subject to contact-points  $f^2$  and  $h'$ .

The disk  $d^6$  has its outer edge cut away at 5  $d^5$  and is in continuous contact with the upper semicircular end of the elastic strip  $h$ , screwed to the base  $h^3$ , to which base is also secured the elastic strip  $h^2$ . The enlarged heads of each strip are provided with contact-points  $h'$ .

The operation is as follows: When a coin is deposited in slot C and falls on the end of lever  $c$ , the latter is tilted, rocking arm  $c^3$  to the left against the tension of spring  $c^2$ , thus 15 rotating shaft  $c^4$  and depressing the end of cam  $c'$ . This removes the support of weighted lever  $f'$  and arm  $f$ . Weighted lever  $b^5$  is accordingly free to rock axle  $b^4$  through the disk-controller  $b^6$ , trip  $f'$  thereby falling to a position where its contact-piece  $f^2$  impinges on 20 its lower piece or anvil, and its projecting toe is held immediately over the curved end of lever  $e'$ , the pins  $b^3$  on controller  $b^6$  inclining the disk-arm  $b'$  to the right in this operation, 25 thus forcing the disk B off from opening  $a'$ .

By reference to Fig. 4 the construction of trip  $f'$  is made plain, from which it will be readily understood that when the short end of trip  $f'$  has fallen below cam  $c'$  spring  $c^2$  30 will immediately restore the coin-lever  $c$  and cam  $c'$  to their normal position, the coin having fallen from the end of lever  $c$  upon the initial tilting of same. Any special apparatus for removing the coin from its lever does 35 not of course constitute a part of my invention and need not be herein shown. The return of the disk B, with its connections, to its normal position is accomplished as follows: When one revolution of shaft  $d^4$  is nearly 40 completed, the cam  $d^3$  forces the short end of lever  $e'$  downward, thus elevating its long end and carrying with it arm  $f$ , (which has previously dropped thereon,) controller  $b^6$ , and disk-arm  $b'$ , thus closing aperture  $a'$ . The upward 45 movement of arm  $f$  carries with it trip  $f'$ . When the short end  $f^3$  of the latter strikes the under side of the outer end of cam  $c'$ , it will be rotated on its pivot to the position shown in dotted lines in Fig. 4, and after 50 scraping past said cam  $c'$  will fall to its normal position, (shown in full lines, Fig. 4,) in which position, by reason of its short end resting on cam  $c'$  and its long end having freedom of motion in an upward direction 55 only, it will serve as a lock or detent for the disk B. As it is usually desirable to illuminate the interior of the case A only when the apparatus is in actual operation, and in some cases (such as automatic photographing, 60 wherein the sensitized plates are exposed in the first step of the process and might be injured by the artificial illumination) during a portion only of such operation, the electric circuit in which the lamp or lamps are included is subject to completion at two points. 65 One of these contacts  $f^2$  is completed whenever arm  $f$  drops to its lower position, which,

as explained, takes place immediately upon the movement of the coin-lever. The other,  $h'$ , is effected during the passage of the larger 70 portion of disk  $d^6$ , which forces the contact-point of strip  $h$  against that of  $h^2$  and holds it there until the revolution of shaft  $d^4$  is completed, when it is broken by the resilience of the strip  $h$  in the space afforded by the cut- 75 away portion  $d^5$  of the periphery of the disk  $d^6$ . It will thus be seen that the electric illumination of the machine is subject to the combined action of my improved mechanism and that of the main apparatus, this being a feature of my invention. 80

Any common source of electricity or number or kind of lamps may be utilized in the practice of my invention; and I am not of course limited to one observation port or aperture in each case. Should more than one 85 be used, such portions of my improved apparatus could be duplicated as are necessary to the purpose. This would, however, necessitate a corresponding duplication of contacts 90  $f^2$ , according to the additional number of coin-actuated shutter-operating mechanisms. In Fig. 2 I have illustrated a preferred arrangement of the electric circuit whereby one main 95 circuit  $i$ , including the lamps  $i^2$ , with its machine-controlled contact  $h'$ , may be completed at either of an indefinite number of coin-actuated contact-points  $f^2$ . By reference to Fig. 2 it will be readily seen that a current 100 entering by wire  $+$  and finding either contact-point  $f^2$  completed will pass therefrom to connecting-wire  $i^3$ , through contact  $h'$  and lamps  $i^2$  to return-wire. It is obvious that contacts  $f^2$  may be indefinitely multiplied without materially altering the arrangement of the circuit. 105

A motor of any ordinary description adapted to the class of machines herein referred to and operated by any suitable means may of course be utilized without departing from 110 the spirit of my invention, and I do not limit myself in this respect or as to the shape or size of the case, observation-port, or shutter or as to the particular function of the main apparatus. 115

My improvements herein described may of course be applied to almost any of the numerous forms of slot-machines in common use which comprise apparatus of an attractive character. 120

In the coin-actuated machines with which I am acquainted no attempt has been made to enhance the revenue-creating capacity of the apparatus by automatically opening observation-ports in and illuminating the interior of the case through the medium of coins 125 deposited on levers other than what may be properly termed the "main" coin-lever—viz., that by which the principal mechanism is set in motion. 130

It will readily be seen that by means of my improvement herein described the income derived from many of the common coin-controlled machines may be largely increased at



slight, if any, additional expense, especially where well-made and attractive apparatus is employed. It is further evident that where artificial illumination is unnecessary or undesirable no electric circuit, means for making electric contacts, &c., are necessary, as the pecuniary benefits resulting from my improved apparatus for opening the interior of the casing to view and automatically closing the same upon the completion of one full operation may be obtained in many instances without such artificial illumination.

Having thus described my invention, I claim—

15 1. In a coin-controlled machine, the combination of a coin-actuated motor, a shaft rotated thereby, a casing, an observation-aperture therein, a shutter for said aperture, a coin-lever releasing the shutter, means governed by said motor for replacing the shutter, and an electric contact controlled by the coin-lever, substantially as described.

25 2. In a coin-actuated apparatus, the combination of a casing, an observation-opening therein, a shutter for the opening, a coin-lever actuating said shutter, and a detent for the shutter, substantially as described.

30 3. In a coin-actuated apparatus, the combination of a casing, a motor therein, a shaft operated by said motor, a disk on said shaft, electric contact-points governed by said disk,

a coin-lever, a shutter operated thereby, arms secured to said shutter, electric contact-points controlled by said arms, an electric circuit including said contact-points, and a lamp in said circuit, substantially as described. 35

4. In a coin-actuated machine, the combination of a casing provided with an observation-aperture, a motor for the machine, a shaft operated by said motor, a replacing-lever actuated by said shaft, a coin-lever, a shutter for the aperture controlled by said coin-lever and replacing-lever, and an electric contact controlled by the coin-lever, substantially as described. 45

5. In a coin-actuated machine, the combination of a casing provided with an observation-aperture, a motor for the machine, a shaft operated by said motor, a lever and an electric contact governed by said shaft, a coin-lever, a shutter and electric contact controlled thereby, one or more electric lamps, and an electric circuit including said contact-points and lamps, substantially as described. 50

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses. 55

REMIGIO LO FORTE.

Witnesses:

W. LAIRD GOLDSBOROUGH,  
WM. H. CLARKE.