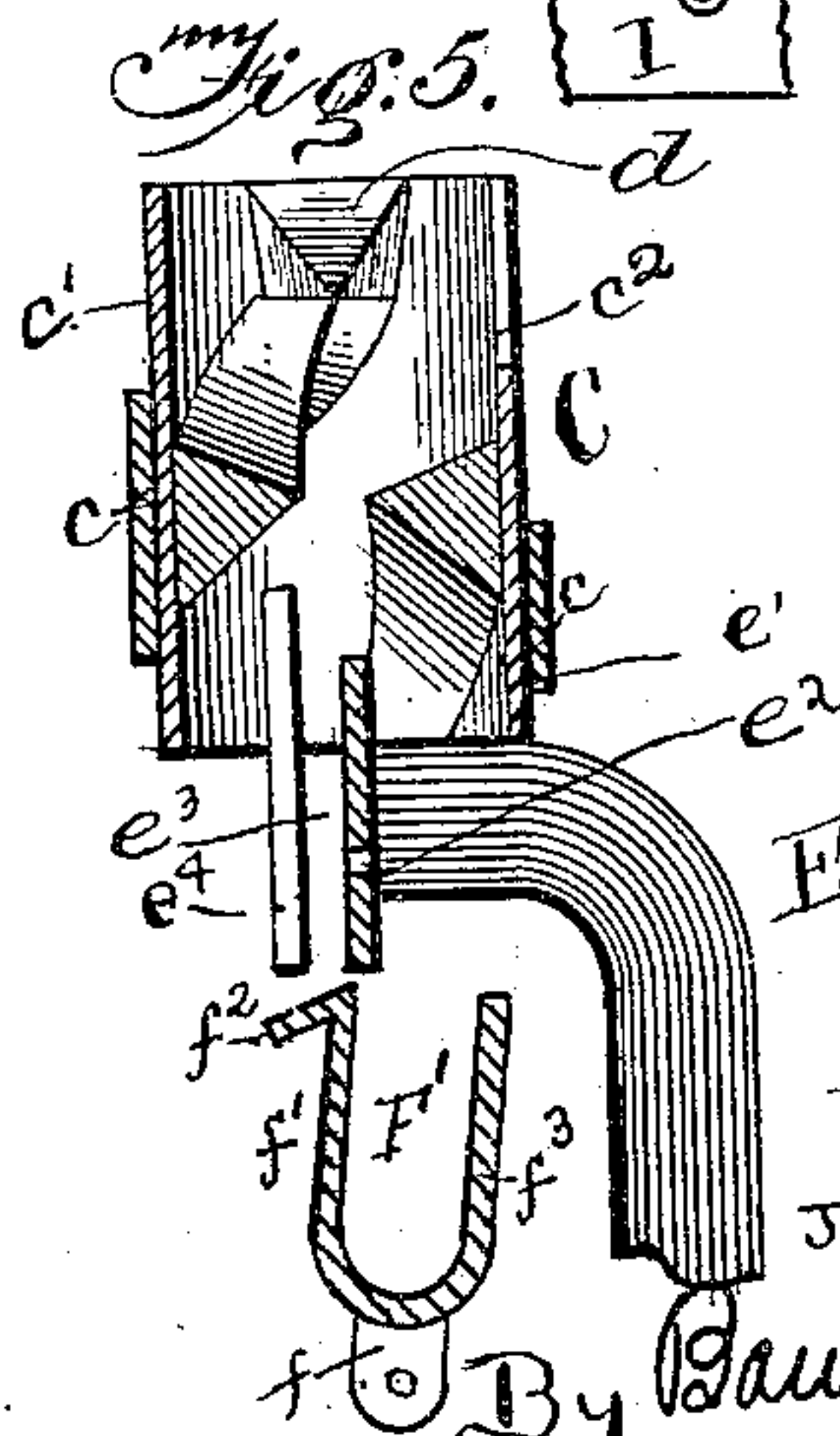
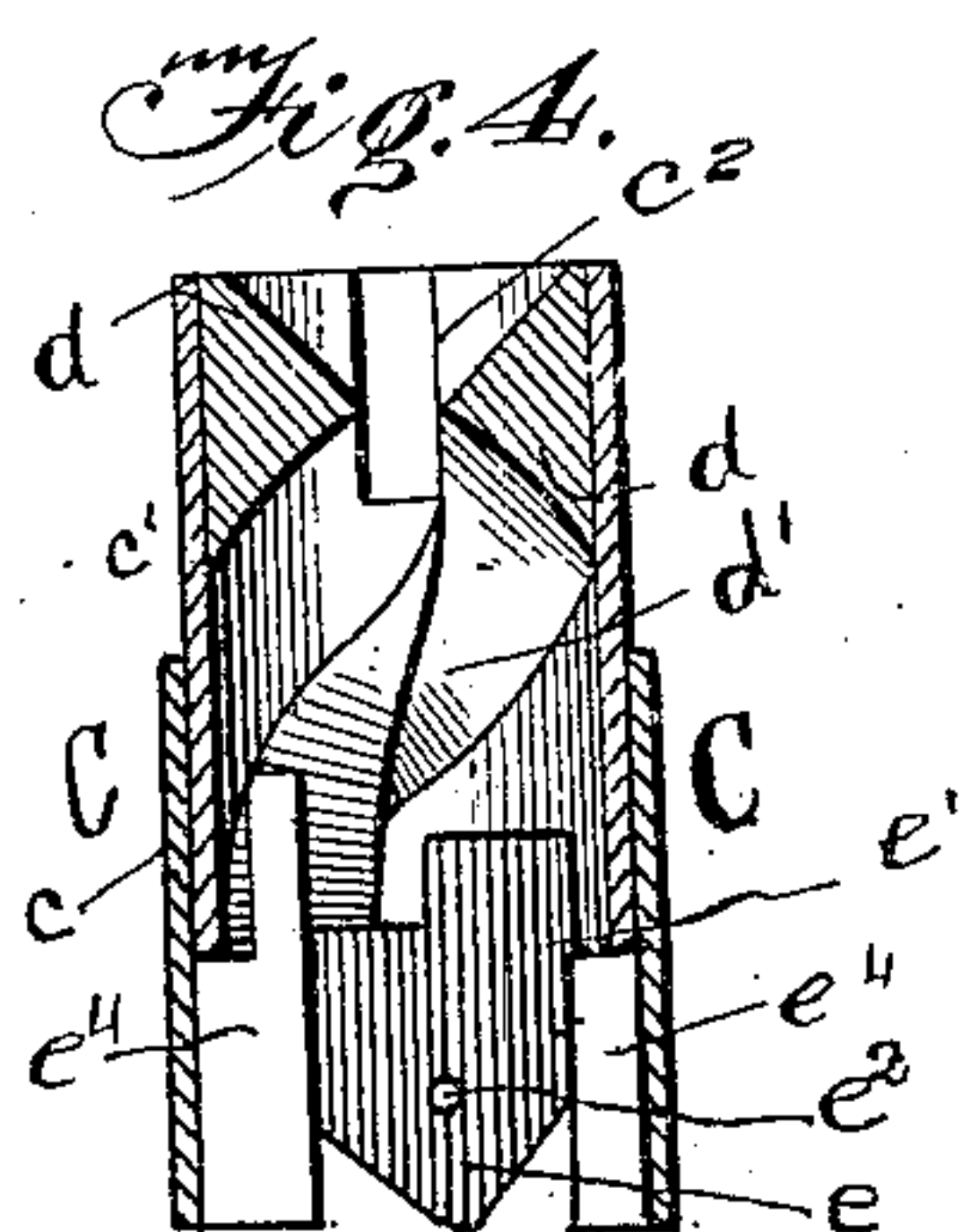
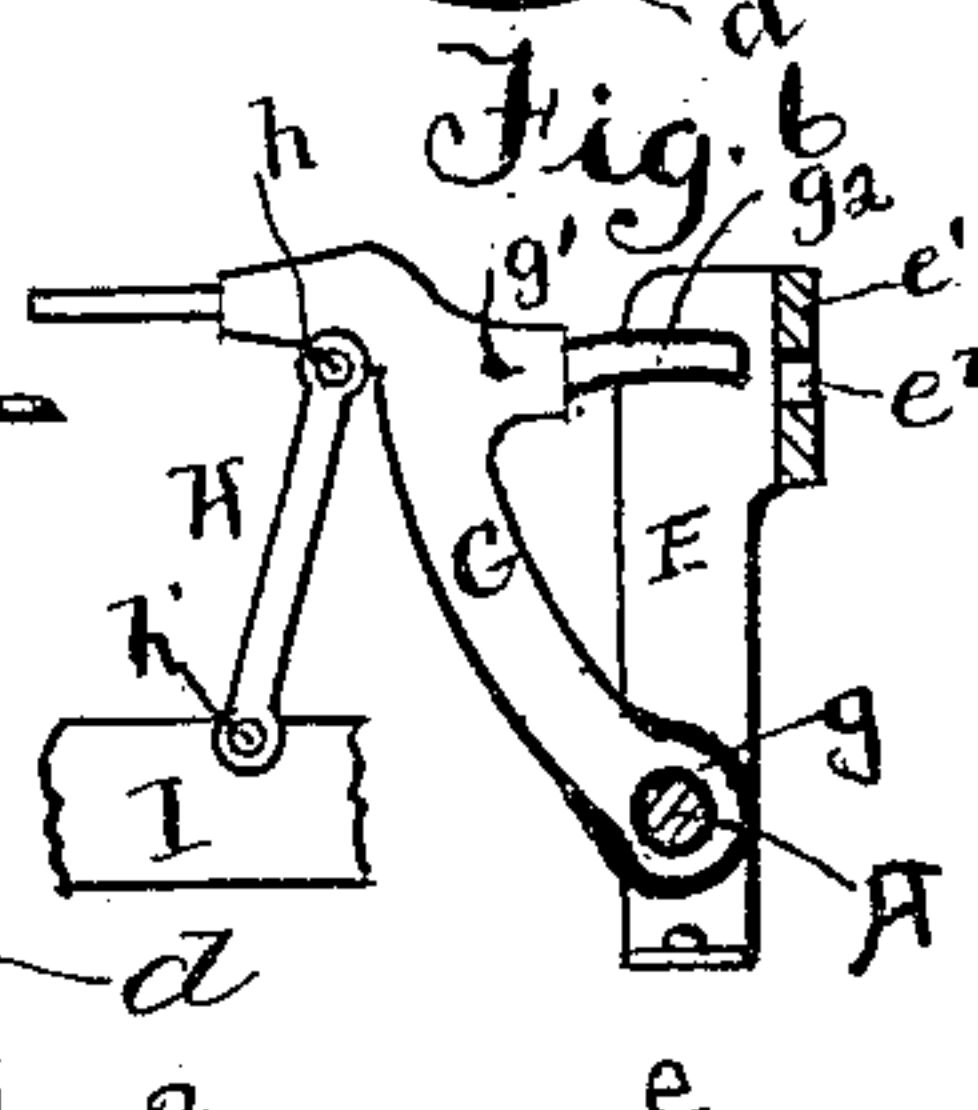
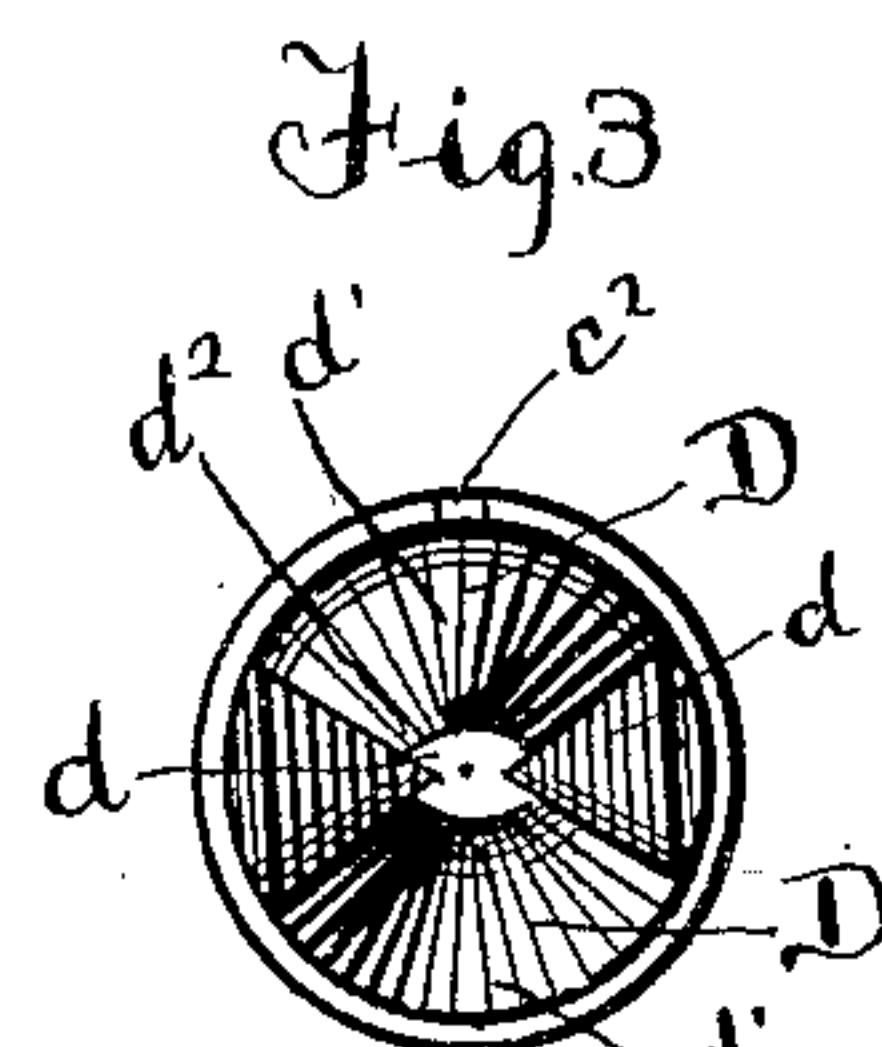
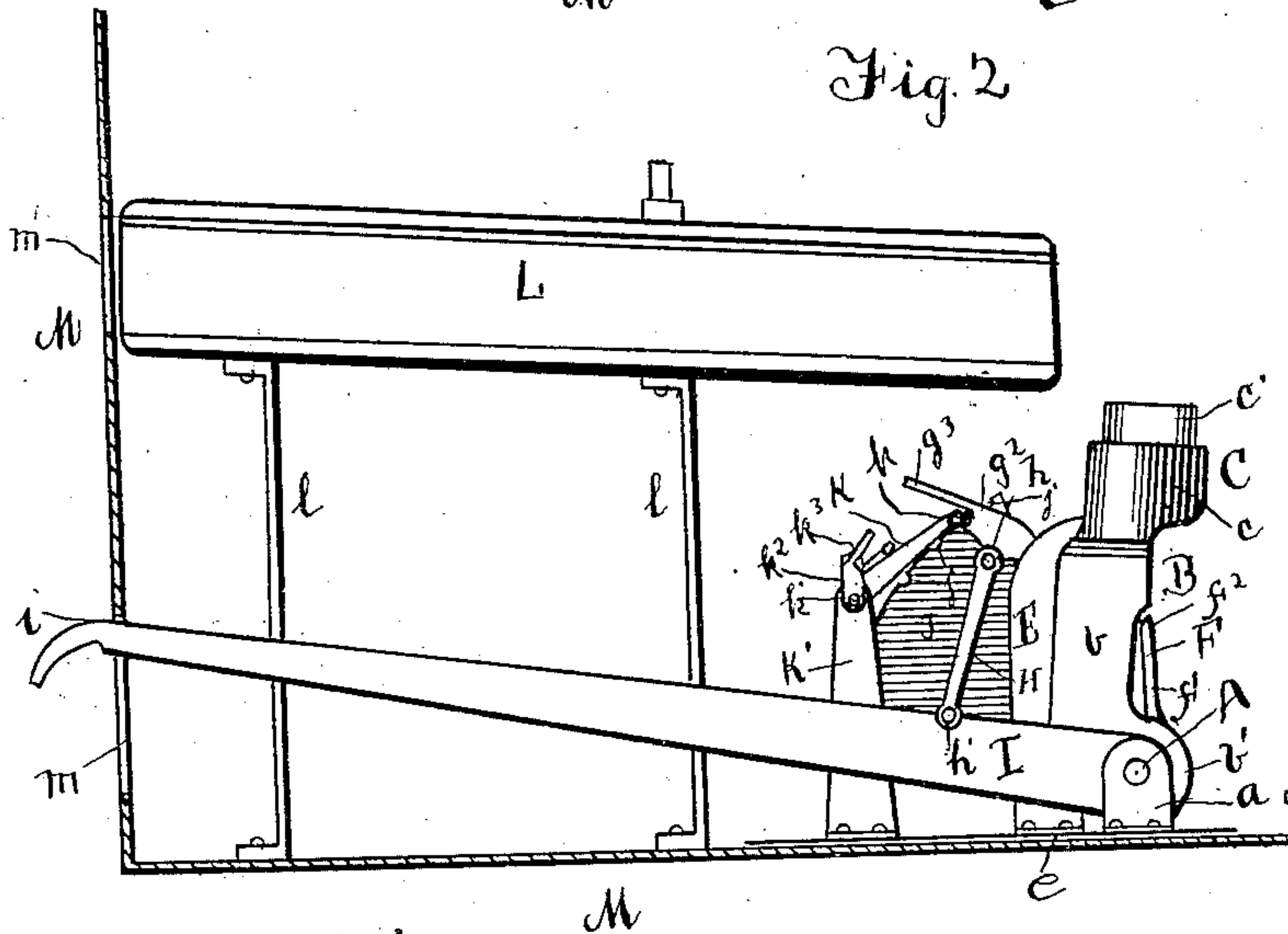
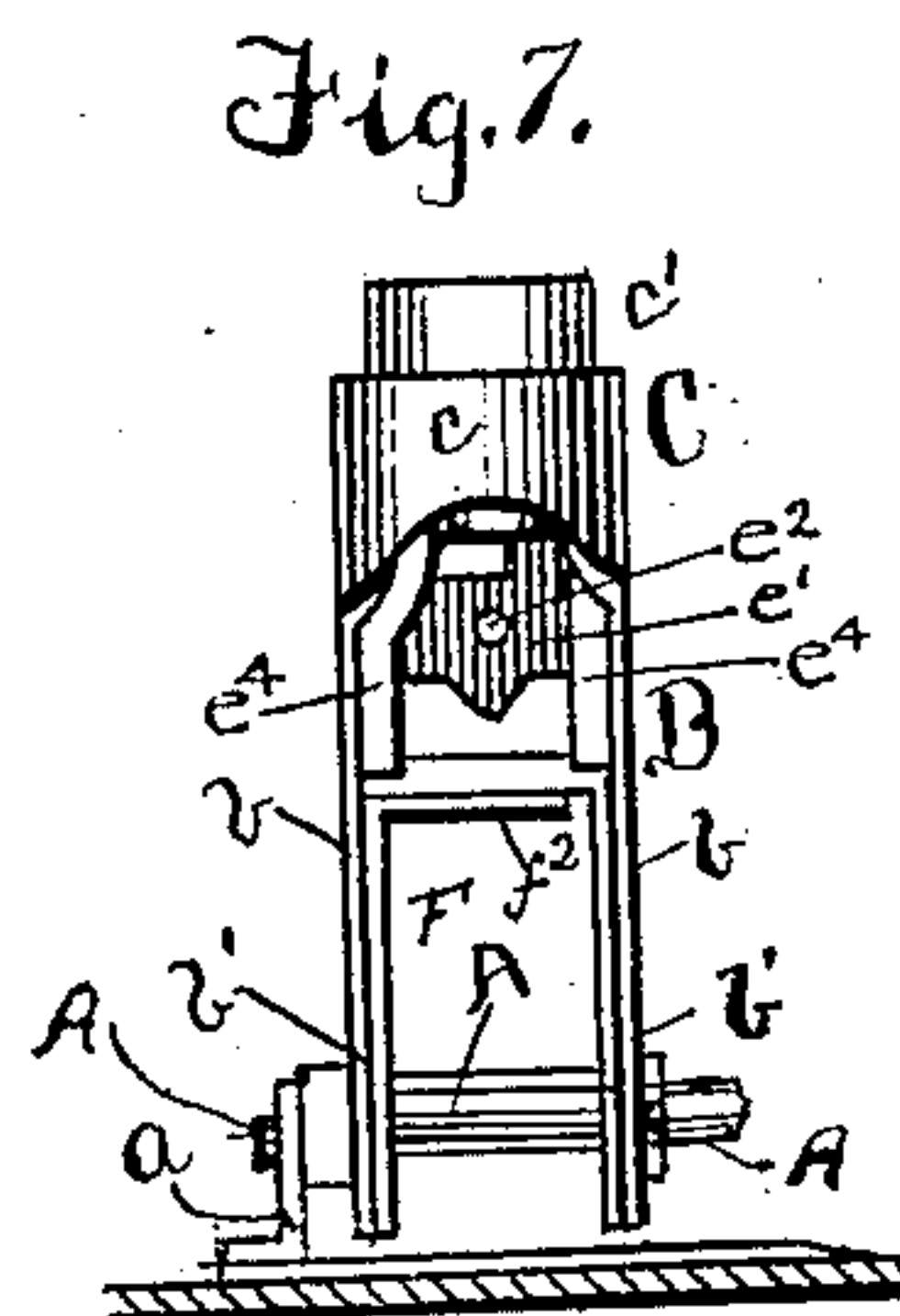
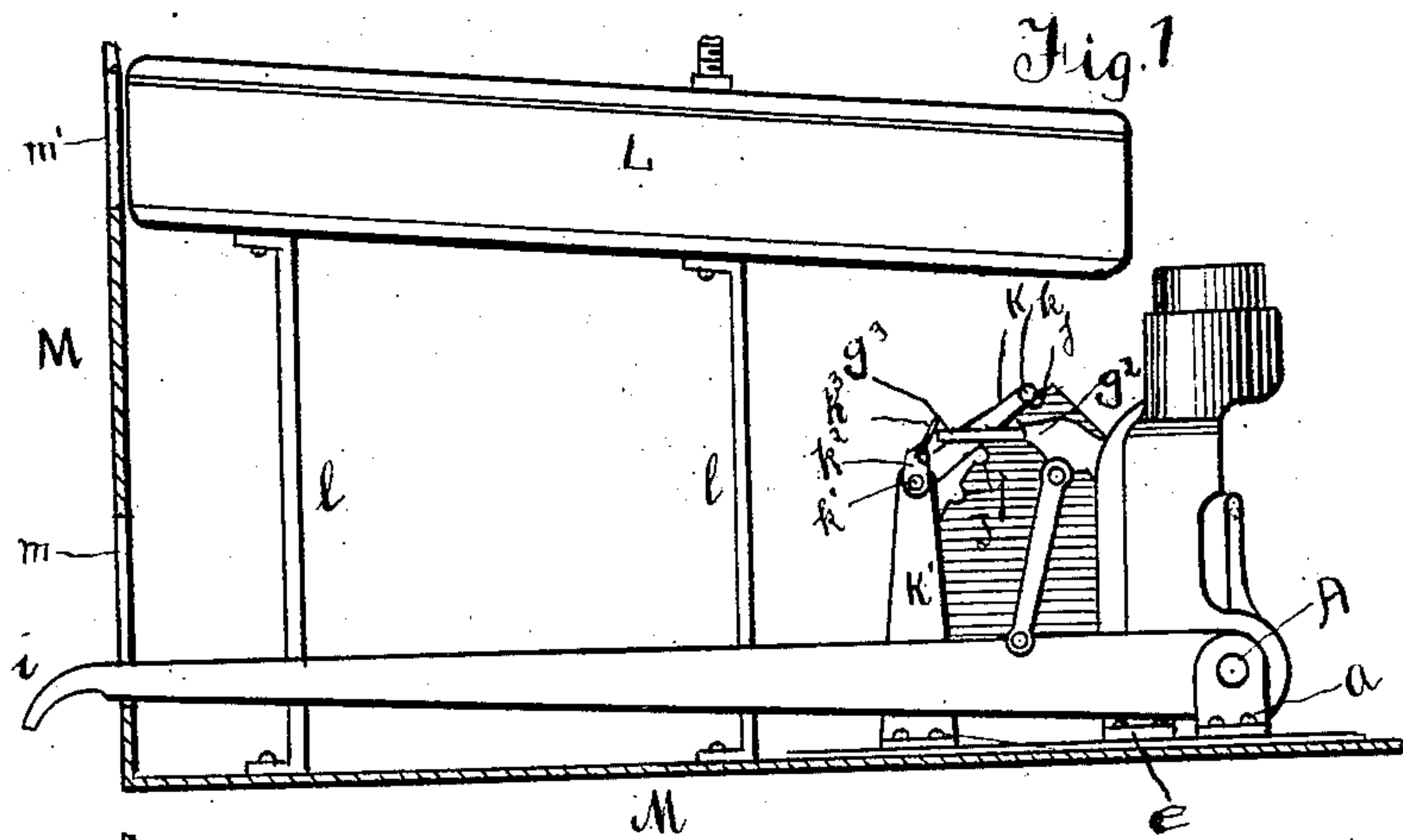


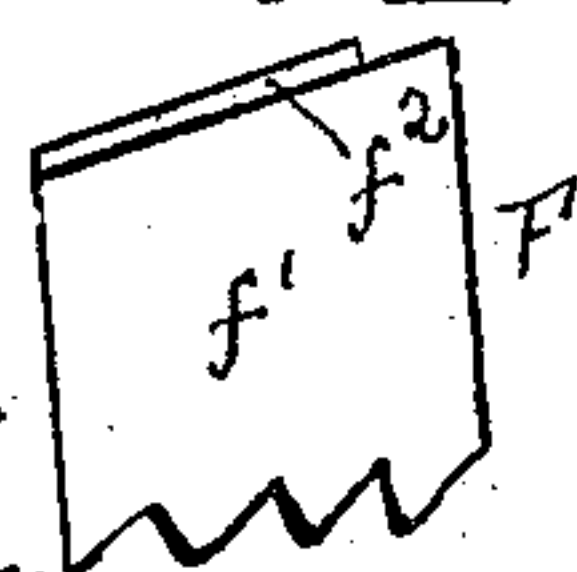
No. 862,751.

PATENTED AUG. 6, 1907.

J. E. PACKARD.  
COIN CONTROLLED MECHANISM.  
APPLICATION FILED APR. 16, 1904.



Witnesses:  
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Pauline Beckman



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By *Gaming Gaming*  
Attys.



# UNITED STATES PATENT OFFICE.

JOHN E. PACKARD, OF CHICAGO, ILLINOIS, ASSIGNOR, BY MESNE ASSIGNMENTS, TO  
NATIONAL PENNY SALES COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF  
ILLINOIS.

## COIN-CONTROLLED MECHANISM.

No. 862,751.

Specification of Letters Patent.

Patented Aug. 6, 1907.

Application filed April 16, 1904. Serial No. 203,410.

*To all whom it may concern:*

Be it known that I, JOHN E. PACKARD, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Coin-Controlling Mechanism, of which the following is a specification.

The invention relates to the receiver or cradle into which a coin of the proper denomination is deposited and held vertically edgewise and crosswise for the action of a plunger against the coin to advance the receiver or cradle into position to deposit a coin with the initial withdrawal of the plunger.

The objects of the invention are to furnish a coin receiver or cradle into which the coin will be deposited edgewise and will be turned in the receiver or cradle so as to stand vertically crosswise to the movement of the plunger; to furnish a coin receiver or cradle one portion of which is fixed or stationary and the other portion of which is movable away from the stationary portion to enable a coin to be deposited; to support the deposited coin on a stop or retainer within the movable section of the receiver or cradle and between guides formed on the stationary and movable sections of the cradle for the coin to be held facewise in position to be engaged by the plunger and have the movements of the plunger carry the movable section of the receiver or cradle to its advanced position for dropping the coin; to enable the stop or retainer to be vertically moved with the receiver or cradle and in the event of a washer being employed, have such washer, with the withdrawal of the plunger, drop rearward of the retainer or stop for the coin and out of the place of deposit for the coin; to improve the means for holding the receiver or cradle and the coin support or retainer in their advanced position at the initial withdrawal of the plunger to allow a coin to be deposited; and to improve generally the construction and arrangement of the various devices entering into the mechanism as a whole.

The invention consists in the features of construction and combination of parts hereinafter described and claimed.

In the drawings Figure 1 is a side elevation, showing the position of the coin receiver or cradle for depositing the coin with the operative mechanism in normal position; Fig. 2 a similar view to Fig. 1 showing the movable section of a coin receiver or cradle in its advanced position for dumping the caught coin and with the actuating mechanism at the limit of its movement to advance the coin receiver or cradle; Fig. 3 a top or plan view of the coin receiver or cradle; Fig. 4 a sectional elevation of the coin receiver or cradle, showing the coin stop or retainer broken off; Fig. 5 a sectional elevation of the coin receiver or cradle taken in the opposite direction to Fig. 4, with the coin retainer or stop in position to catch and hold up the coin; Fig. 6 a detail

partly in section, showing the plunger for engaging the coin and advance the movable section of the coin receiver or cradle; and Fig. 7 an end elevation showing the coin receiver or cradle.

The coin receiver or cradle is mounted fixedly on a rock shaft A supported in suitable bearings *a*, from a base plate or the bottom of the casing of the machine. The support B for the movable section of the coin receiver or cradle, consists of two plates or arms *b*, the lower ends *b'* of which are fixedly mounted on the shaft A so that with the oscillation of the support B the shaft A will be rocked. The coin receptacle or cradle C of the movable section is in two sections, in the construction shown, one section *c* being formed with or suitably secured to the standard *b* of the support, and the other section *c'* being in the form of a tube entered into and supported by the band or ring portion *c* of the receiver or cradle. The section *c'* of the receiver or cradle has within its interior a spiral D, by which a deposited coin entering therein will be turned so as to stand upright and crosswise in front of the plunger. The spiral D, in the form shown, consists of two similar ribs, each rib of a V shape in cross section, with a downwardly inclined upper face *d*, starting at the top of the tube *c'*, and with its body *d'* running in a spiral course downwardly within the tube *c'*, the lower ends of the two spiral ribs standing apart so as to leave a space *d<sup>2</sup>* between them in which the coin will be turned to stand edgewise vertical and crosswise as to the position the coin first entered the receiver or cradle, presenting the face of the coin for engagement with the plunger.

The support B and the receptacle C for the deposited coin constitute the movable section of the coin receiver or cradle. The fixed section of the coin receiver or cradle consists of two standards or upright plates E, each standard or plate at its lower end having a flange *e* for attaching the standards or plates to a base plate or to the bottom of the casing of the machine. The upper end of each standard or plate is curved in the direction to lie beneath the coin receptacle of the receiver or cradle and this end of the standards or plates has a cross plate *e'* in which is a hole *e<sup>2</sup>*, approximately in line with the center of the coin when deposited, through which hole the stem of the plunger passes to engage the face of the coin and carry the movable section of the coin receiver or cradle away from the fixed section thereof. A coin stop or retainer F is located below the receptacle C of the coin receiver or cradle and this stop has ears *f* at its lower end by which it is mounted on the shaft A so as to oscillate with or on the shaft. The front plate or wall *f'* of the coin retainer or stop has a ledge or flange *f<sup>2</sup>* at its upper end, against which the edge of the coin will strike to support the coin in the space *e<sup>3</sup>* between the plate *e'* and wings *e<sup>4</sup>*, depending from the receptacle C as shown in Figs. 4 and 5, the wings being on op-



posite sides of the receptacle with an opening between them as shown in Fig. 4. The coin stop or retainer F has a chamber F' between its wall  $f'$  and a rear wall  $f^3$ , into which space a washer, caught by the stem of the  
 5 plunger, will drop with the return of the plunger, thus preventing a washer from moving the movable section of the coin receiver or cradle.

The plunger is formed of an arm G, the lower end  $g$  of which is journaled on the shaft A so that the arm is  
 10 free to swing on the shaft as a pivot. The upper end of the arm G has a boss or projection  $g'$ , extending out from which is a stem  $g^2$ , which passes through the hole  $e^2$  for its end to engage the face of the deposited coin, held in the space  $e^3$  between the plates  $e'$  and  $e^4$  with its  
 15 edge resting on the retainer or stop. The arm G is oscillated or vibrated by a link H, one end of which is attached to a pin or stud  $h$  on the arm and the other end of which is attached to a pin or stud  $h'$  on the actuating lever I, which lever is loosely journaled on its in-  
 20 ner end on the shaft A and its outer end  $i$  projects through the front wall of the casing and is adapted to be grasped by the hand so as to raise the lever.

One of the standards  $b$  has extending therefrom toward the front of the machine, in the arrangement shown  
 25 a plate J having in its edge a series of notches  $j$  and furnishing the means for holding the movable section of the coin receiver or cradle in its advanced position. A dog K, having a stop end  $k$ , is arranged for the stop end  $k$  to engage with the notches  $j$  of the plate J, as the  
 30 movable section of the coin receiver or cradle is carried forward. This dog K is fixedly attached to a pin or pivot  $k'$  mounted in the upper end of a standard or upright K' attached at its lower end to a base plate or to the bottom of the casing of the machine. This pin or  
 35 pivot  $k'$  has extending upwardly therefrom an arm  $k^2$ , terminating in a curved end  $k^3$ , with the face of which the end of a contact  $g^3$  engages, the contact extending out from a boss  $g^2$  on the arm so that the contact  $g^3$  will rise and fall with the movements of the arm. The  
 40 contact, when the parts are normal as shown in Fig. 1, engages the face of the curved end  $k^3$  and holds the dog K in a raised position, with its stop  $k$  out of engagement with the notches or notch  $j$  of the plate J, so that the plate is released and permits the movable section of the  
 45 coin receiver or cradle to be carried forward to its advance position. The release of the end  $k^3$ , allows the dog K to drop for its stop  $k$  to engage with a notch  $j$  and when engaged hold the plate in its raised position, retaining the coin receiver or cradle in its forward position,  
 50 and with the return of the arm G by the release of the actuating lever I the end of the contact  $g^3$  strikes the face of the end  $k^3$  and swings the dog K upward at its free end, releasing the stop  $k$  from the caught notch  $j$  and allowing the plate J and with it the movable section  
 55 of the coin receiver or carrier to return to normal position ready for the next operation.

The coin is deposited in the coin receiver or cradle by a coin chute L, which may be of any suitable construction adapted to transmit a coin from the outside  
 60 of the casing of the machine, and have the transmitted coin enter the slot  $c^2$  to engage the spiral D and be turned so as to stand vertically edgewise and crosswise in advance of the plunger. The coin chute can be supported in an elevated position within the casing of the  
 65 machine by uprights  $l$ , as shown, or in any other suit-

able manner. The casing M has a bottom portion, in the construction shown, and side walls, the side walls not being fully represented as the construction of the casing forms no part of the present invention. The front wall is to have a slot  $m$ , permitting of the raising  
 70 and lowering of the actuating lever I, and is to have a slot  $m'$  for the passage of a coin to travel down the coin chute L and enter the movable section of the coin receiver or cradle.

The operation is as follows: The coin from chute L  
 75 enters the slot  $c^2$  of the movable section of the coin receiver or cradle and is turned, so as to stand vertically edgewise, and crosswise from its entering position, by the spiral D down which the coin descends. The descending coin is caught on the shelf or flange  $f^2$  of the coin  
 80 retainer or stop F and is held in the space  $e^3$ , between the plate  $e'$  and the guides or flanges  $e^4$ , in position for its face to be engaged by the stem of the plunger, when the plunger is raised and advanced. The free end of the actuating lever I is raised by the purchaser and the  
 85 upward movement of the body of the lever I, through the link H raises the arm G of the plunger and carries the stem  $g^2$  forward to pass through the hole  $e^2$  and strike the face of the coin and the continued upward movement of the actuating lever I, causes the plunger  
 90 end or stem  $g^2$  to pass further through the hole  $e^2$ , and such further advance of the stem, by reason of the engagement of its end with the coin, carries the movable section of the receiver or cradle away from the fixed section and such advance movement continues until  
 95 the limit of upward movement of the actuating lever is reached, at which time the movable section of the coin receiver or cradle has been advanced to a position where, with the initial return of the plunger stem by the release of the actuating lever I, the caught coin will  
 100 drop and will descend into a receptacle or box therefor passing in front of the coin stop or retainer F, which is in the position shown in Fig. 2 so as to allow a free descent of the caught coin. The movable section of the coin receiver or cradle and the coin retainer or stop re-  
 105 main in the advanced position shown in Fig. 2, until the contact  $g^3$  engages the end  $k^3$  and raises the dog K releasing the stop from the caught notch  $j$  and allowing the parts to return to normal position. The stop  $k$  engaging a notch  $j$ , when the movable section of the  
 110 coin receiver or cradle is in its most advanced position to allow a coin to deposit, any intermediate position of the coin receiver or cradle, between its normal position and its most advanced position, will not deposit a coin, as with the partial advance of the coin receiver or  
 115 cradle its return will be prevented by the engagement of the stop  $k$  with a notch  $j$ , and until the full advance of the movable section of the receiver or cradle is made, the stop or retainer F is not carried to position to allow a caught coin to drop. This prevents any operation of  
 120 the mechanism until the movable section of the receiver or cradle has been carried to its most advanced position. A washer, if entered into the coin receiver or cradle, will be inoperative to actuate the mechanism, as with a washer the hole therein will be in line with  
 125 the thrust of the stem  $g^2$ , so that the stem  $g^2$  will pass through the hole of the washer and will not contact the face of the washer to carry forward the movable section of the coin receiver or cradle; and with the withdrawal of the stem  $g^2$  by the return of the arm G to normal posi-  
 130



tion, the caught washer will drop into the chamber F' back of the front of the coin retainer or stop F, as such retainer or stop has been carried forward a sufficient distance for the edge of the washer not to contact the inclined shelf or flange  $f^2$ , with the result that a clear space is presented through which the washer will descend into the chamber F' where it will be useless so far as operating the mechanism is concerned.

It will be seen that with the coin receiver or cradle of the present invention made in two sections, one of which is movable and the other immovable, the deposit of a coin in proper position presents the coin for its face to be engaged by the stem of the plunger, so as to carry the movable section of the coin receiver or cradle into position to allow the coin to drop with the initial return of the stem of the plunger; that with a washer no movement of the movable section of the coin receiver or cradle can occur, as the stem  $g^2$  of the plunger will pass through the eye or hole of the washer; that in case of a lead or other soft metal slug being used and deposited in the coin receiver or cradle, the action of the stem of the plunger, as it bears against the face of the slug, will bend the slug and force it out in the opening between the flanges or guides  $e^4$  of the movable section of the coin receiver or cradle, and this without advancing the movable section of the coin receiver or cradle to an operative position to discharge an article. The coin receiver or cradle made in two sections is effective in operation with a coin of the proper denomination deposited therein, but is rendered inoperative in the event of the deposit of a washer or soft slug, thus preventing tokens, other than a coin of the proper denomination, actuating the movable section of the coin receiver or cradle.

What I claim as new and desire to secure by Letters Patent is:

1. In a coin controlled mechanism, a head for a coin receiver or cradle having an annular interior provided with oppositely arranged spirally inwardly extending walls forming two downwardly extending spiral ribs separated from each other at the center and providing a spiral pathway for receiving thereinto a coin standing vertically edgewise and turning the coin in its vertical descent to present its side faces crosswise of the entered position, substantially as described.

2. In a coin controlled mechanism, a head for a coin receiver or cradle comprising an exterior wall or shell having an annular interior with downwardly extending spiral ribs on the inner face of the wall or shell, the ribs being wedge shaped in cross section and starting from opposite sides of the interior of the wall or shell and extending around the wall or shell to furnish a quarter turn for a coin and having their spiral edges separated one from the other at the center to furnish a spiral pathway of travel for receiving thereinto a coin, the coin, when entered, standing vertically edgewise and the spiral pathway turning the vertically descending coin, to present its side faces crosswise of the entered position, for the coin to discharge vertically and at right angles to its entered position, substantially as described.

3. In a coin controlled mechanism, a head for a coin receiver or cradle comprising an exterior wall or shell having an annular interior with downwardly extending spiral ribs on the inner face of the wall or shell, the ribs being wedge shaped in cross section and starting from opposite sides of the interior of the wall or shell and extending around the wall or shell to furnish a quarter turn for a coin and having their spiral edges separated one from the other at the center to furnish a spiral pathway of travel for receiving thereinto a coin, the coin, when entered, standing vertically edgewise and the spiral pathway turning the

vertically descending coin, to present its side faces crosswise of the entered position, for the coin to discharge vertically and at right angles to its entered position, and a coin chute arranged in juxtaposition to the head and adapted to deliver a coin vertically edgewise into the head, substantially as described.

4. In a coin controlled mechanism, a head for a coin receiver or cradle comprising an exterior wall or shell having an annular interior with downwardly extending spiral ribs on the inner face of the wall or shell, the ribs being wedge shaped in cross section and starting from opposite sides of the interior of the wall or shell and extending around the wall or shell to furnish a quarter turn for a coin and having their spiral edges separated one from the other at the center to furnish a spiral pathway of travel for receiving thereinto a coin, the coin, when entered, standing vertically edgewise and the spiral pathway turning the vertically descending coin, to present its side faces crosswise of the entered position, for the coin to discharge vertically and at right angles to its entered position, a coin chute arranged in juxtaposition to the head and adapted to deliver a coin vertically edgewise into the head, and a coin chute located below the head and serving to maintain the dropped coin in its crosswise position, substantially as described.

5. In a coin controlled mechanism, a vertically standing head for a coin receiver or cradle comprising an exterior wall or shell and interior spiral ribs, the ribs starting from opposite sides and each spirally descending and furnishing, on opposite sides of the interior of the wall or shell from the starting point a descending spiral pathway of travel for receiving thereinto a coin standing vertically and have the coin in descending remain vertical and at the limit of descent have its side faces stand crosswise of the entered position, and a coin chute arranged in juxtaposition to the head on one side and delivering a coin vertically edgewise into the head, substantially as described.

6. In a coin controlled mechanism, a vertically standing head for a coin receiver or cradle comprising an exterior wall or shell and interior spiral ribs, the ribs starting from opposite sides and each spirally descending and furnishing on opposite sides of the interior of the wall or shell from the starting point a descending spiral pathway of travel for receiving thereinto a coin standing vertically and have the coin in descending remain vertical and at the limit of descent have its side faces stand crosswise of the entered position, a coin chute arranged in juxtaposition to the head on one side and delivering a coin vertically edgewise into the head, and a coin stop located below the head and serving to maintain the dropped coin in its crosswise position, substantially as described.

7. In a coin controlled mechanism, a coin receiver or cradle consisting of a stationary section and a movable section, the stationary section comprising standards upwardly extending and a cross plate at the upper end of the standards with a hole in the cross plate, and the movable section comprising swinging supporting standards upwardly extending and a head carried by the standards and receiving thereinto and retaining therein a coin standing vertically edgewise, with the side faces of the coin parallel with the cross plate of the stationary section, and having the swinging standards of the movable section outside the standards of the stationary section and the head of the movable section above the cross plate of the stationary section, means for directing a coin into the receiving and retaining head of the movable section, a coin stop arranged to maintain the coin in normal position in the head, and means adapted to pass through the hole of the cross plate of the stationary section of the coin receiver or cradle and engage the coin and swing the head of the movable section with the retained coin away from the stationary section, substantially as described.

8. In a coin-controlled mechanism, a coin receiver or cradle consisting of a fixed section and a movable section, the fixed section comprising standards upwardly extending with a cross plate at the upper end of the standards and a hole in the cross plate, and the movable section comprising swinging supporting standards upwardly extending and a head carried by the standards at their upper end, the head having, on opposite sides and parallel with the



cross plate of the fixed standards, guides coacting with the cross plate and furnishing a space for the reception of a coin to stand vertical and crosswise, with the side faces of the coin parallel with the cross plate of the stationary section and having the swinging standards of the movable section outside the standards of the stationary section and the head of the movable section above the cross plate of the stationary section, a coin stop located below the head of the movable section of the receiver or cradle and in line with the coin space for holding the coin vertical and crosswise, and means adapted to be forced through the hole of the cross plate of the fixed standards and engage the coin and swing the head of the movable section with the retained coin away from the stationary section and into position to drop the coin, substantially as described.

9. In a coin-controlled mechanism, a coin receiver or cradle consisting of a fixed section and a movable section, the fixed section comprising standards upwardly extending with a cross plate at the upper end of the standards and a hole in the cross plate, and the movable section comprising swinging supporting standards upwardly extending and a head carried by the standards at their upper end, the head having, on opposite sides and parallel with the cross plate of the fixed standards, guides coacting with the cross plate and furnishing a space for the reception of a coin to stand vertical and crosswise, a coin stop located below the head of the movable section of the receiver or cradle and in line with the coin space for holding the coin vertical and crosswise, and a plunger consisting of an arm and a stem with the arm loosely mounted for the stem to pass through the hole of the cross plate of the stationary section of the coin receiver or cradle and engage the dropped coin and for the base of the arm to engage the coin stop and carry the movable section of the coin receiver or cradle and the coin stop into position to drop the coin, substantially as described.

10. In a coin controlled mechanism, the combination of a shaft, a pair of standards fixedly mounted on the shaft, a coin receptacle on the upper end of the standard and having in its interior a spiral for turning a received coin vertically crosswise of the receptacle, guides on opposite sides of and within the receptacle below the spiral, a pair of fixed standards, a cross plate at the upper end of the fixed standards and having a hole therein and arranged in juxtaposition to the guides of the receptacle to furnish a coin space, and means for engaging the coin in the coin space and carrying the movable standards away from the fixed standards and into position to drop the coin, substantially as described.

11. In a coin controlled mechanism, the combination of a shaft, a pair of standards fixedly mounted on the shaft, a coin receptacle on the upper end of the standard and having in its interior a spiral for turning a received coin vertically crosswise of the receptacle, guides on opposite sides of and within the receptacle below the spiral, a pair of fixed standards, a cross plate at the upper end of the fixed standards and having a hole therein and arranged in juxtaposition to the guides of the receptacle to furnish a coin space, a coin stop mounted on the shaft, and means for engaging the coin in the coin space and the coin stop and forcing the movable standards away from the fixed standards and the coin stop into position to drop the coin, substantially as described.

12. In a coin controlled mechanism, the combination of a shaft, a pair of standards fixedly mounted on the shaft, a coin receptacle on the upper end of the standard and having in its interior a spiral for turning a received coin vertically crosswise of the receptacle, guides on opposite sides of and within the receptacle below the spiral, a pair of fixed standards, a cross plate at the upper end of the

fixed standards and having a hole therein and arranged in juxtaposition to the guides of the receptacle to furnish a coin space, a coin stop mounted on the shaft, an arm loosely mounted on the shaft, a stem on the arm and arranged to pass through the hole of the cross plate to engage the coin and force the movable standards away from the fixed standards and into position to drop the coin, substantially as described.

13. In a coin controlled mechanism, the combination of a shaft, a pair of standards fixedly mounted on the shaft, a coin receptacle on the upper end of the standards and having in its interior a spiral for turning a received coin vertically crosswise of the receptacle, guides on opposite sides of and within the receptacle below the spiral, a pair of fixed standards, a cross plate at the upper end of the fixed standards and having a hole therein and arranged in juxtaposition to the guides of the receptacle to furnish a coin space, a coin stop mounted on the shaft, an arm loosely mounted on the shaft, a stem on the arm and arranged to pass through the hole of the cross plate to engage the coin and force the movable standards away from the fixed standards and into position to drop the coin, an actuating lever and a link between the actuating lever and the arm for oscillating the arm, substantially as described.

14. In a coin controlled mechanism, the combination of a shaft, a pair of standards fixedly mounted on the shaft, a coin receptacle on the upper end of the standards and having in its interior a spiral for turning a received coin vertically crosswise of the receptacle, guides on opposite sides of and within the receptacle below the spiral, a pair of fixed standards, a cross plate at the upper end of the fixed standards and having a hole therein and arranged in juxtaposition to the guides of the receptacle to furnish a coin space, a coin stop mounted on the shaft, an arm loosely mounted on the shaft, a stem on the arm and arranged to pass through the hole of the cross plate to engage the coin and force the movable standards away from the fixed standards and into position to drop the coin, an actuating lever and a link between the actuating lever and the arm for oscillating the arm, a notched plate on the movable standards, and a dog engaging the notched plate for holding the movable standards in the advanced position, substantially as described.

15. In a coin controlled mechanism, the combination of a shaft, a pair of standards fixedly mounted on the shaft, a coin receptacle on the upper end of the standards and having in its interior a spiral for turning a received coin vertically crosswise of the receptacle, guides on opposite sides of and within the receptacle below the spiral, a pair of fixed standards, a cross plate at the upper end of the fixed standards and having a hole therein and arranged in juxtaposition to the guides of the receptacle to furnish a coin space, a coin stop mounted on the shaft, an arm loosely mounted on the shaft, a stem on the arm and arranged to pass through the hole of the cross plate to engage the coin and force the movable standards away from the fixed standards and into position to drop the coin, an actuating lever and a link between the actuating lever and the arm for oscillating the arm, a notched plate on the movable standards, a dog engaging the notched plate for holding the movable standards in the advanced position, a pivot for the dog, an arm having a curved end on the pivot, and a contact on the plunger arm for releasing the dog with the return movement of the plunger, substantially as described.

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Witnesses:

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