

No. 763,040.

PATENTED JUNE 21, 1904.

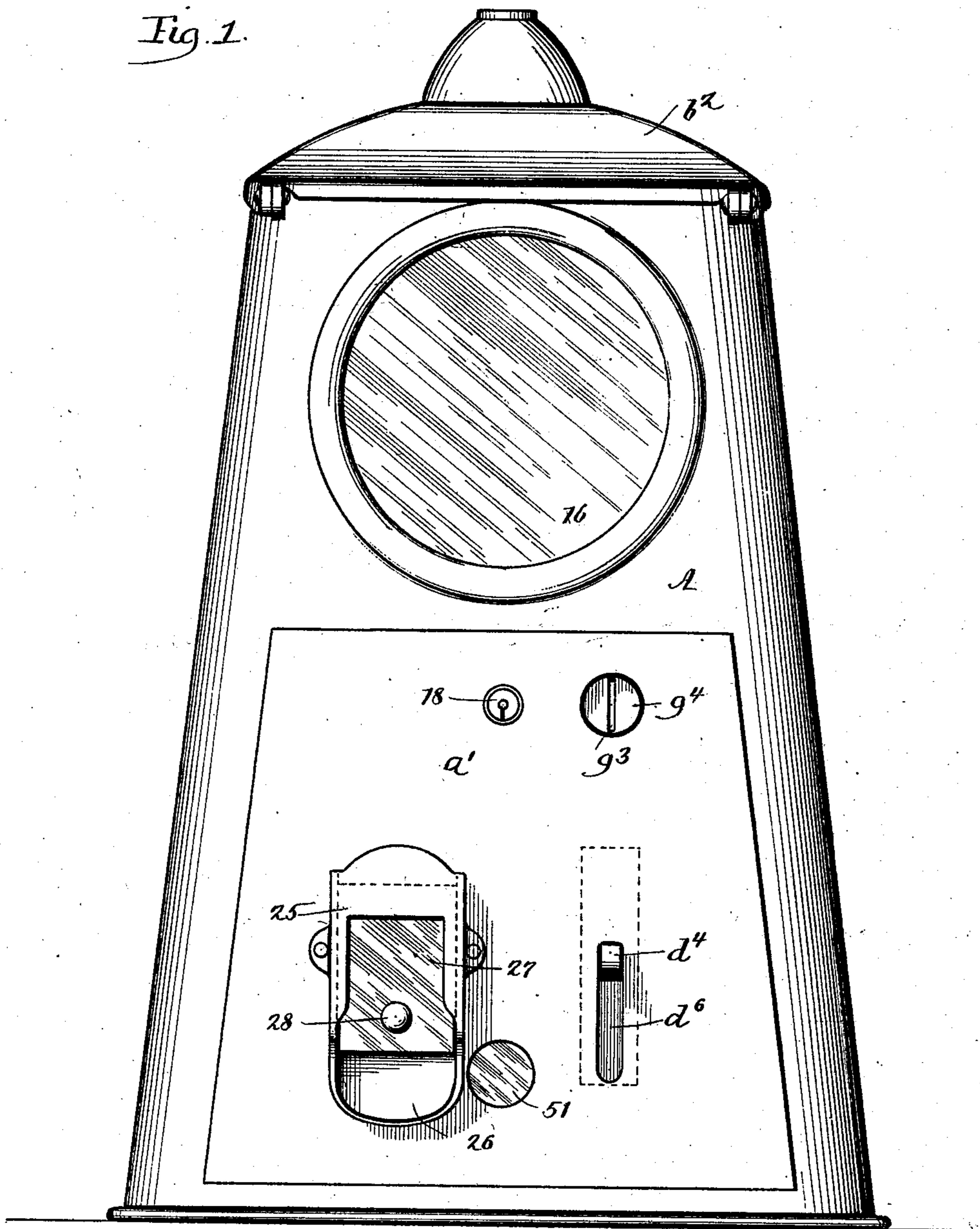
P. E. BERGER.
COIN CONTROLLED MACHINE.

APPLICATION FILED AUG. 22, 1901.

NO MODEL.

8 SHEETS—SHEET 1.

Fig. 1.



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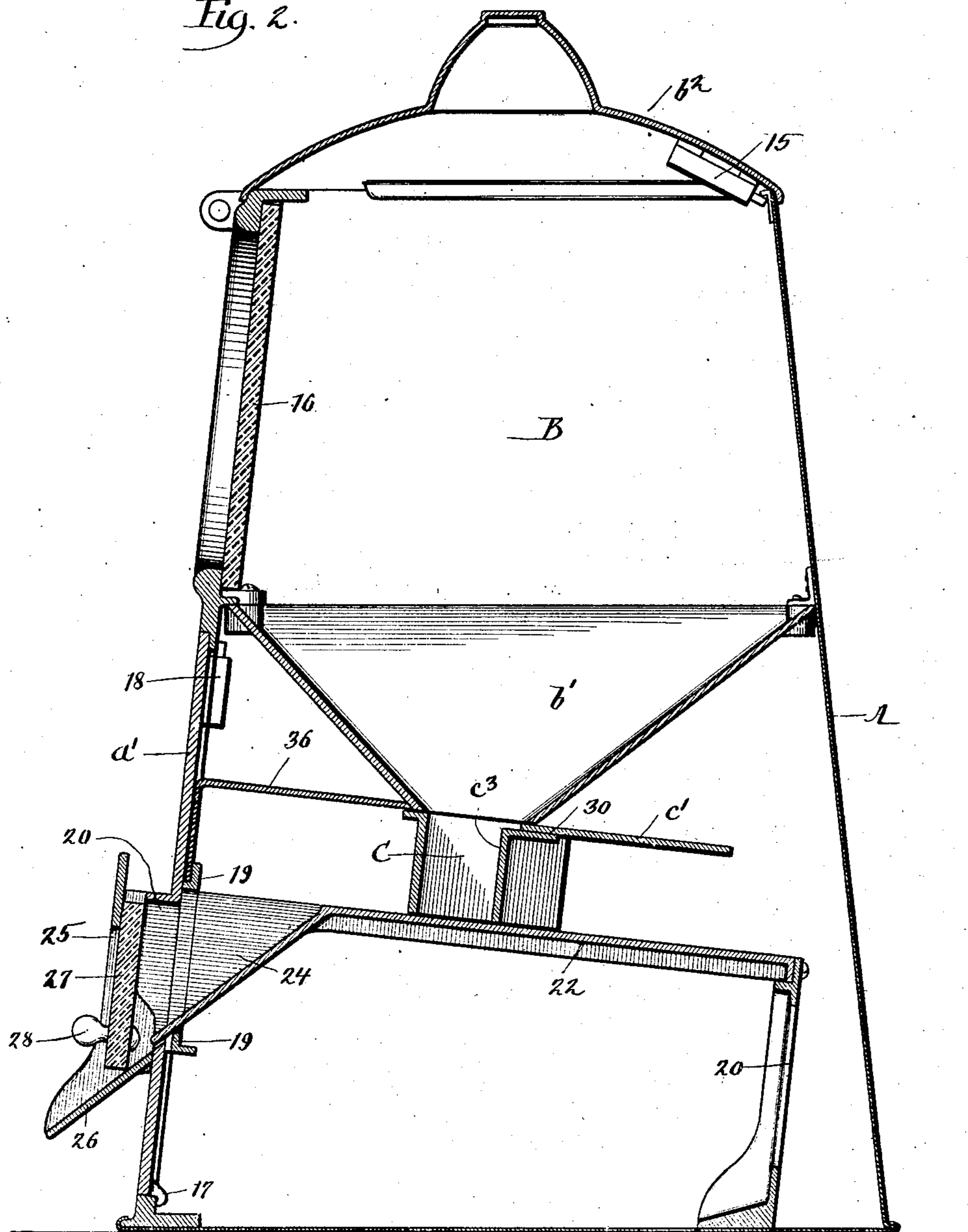
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NO MODEL.

8 SHEETS—SHEET 2.

Fig. 2.



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8 SHEETS—SHEET 3.

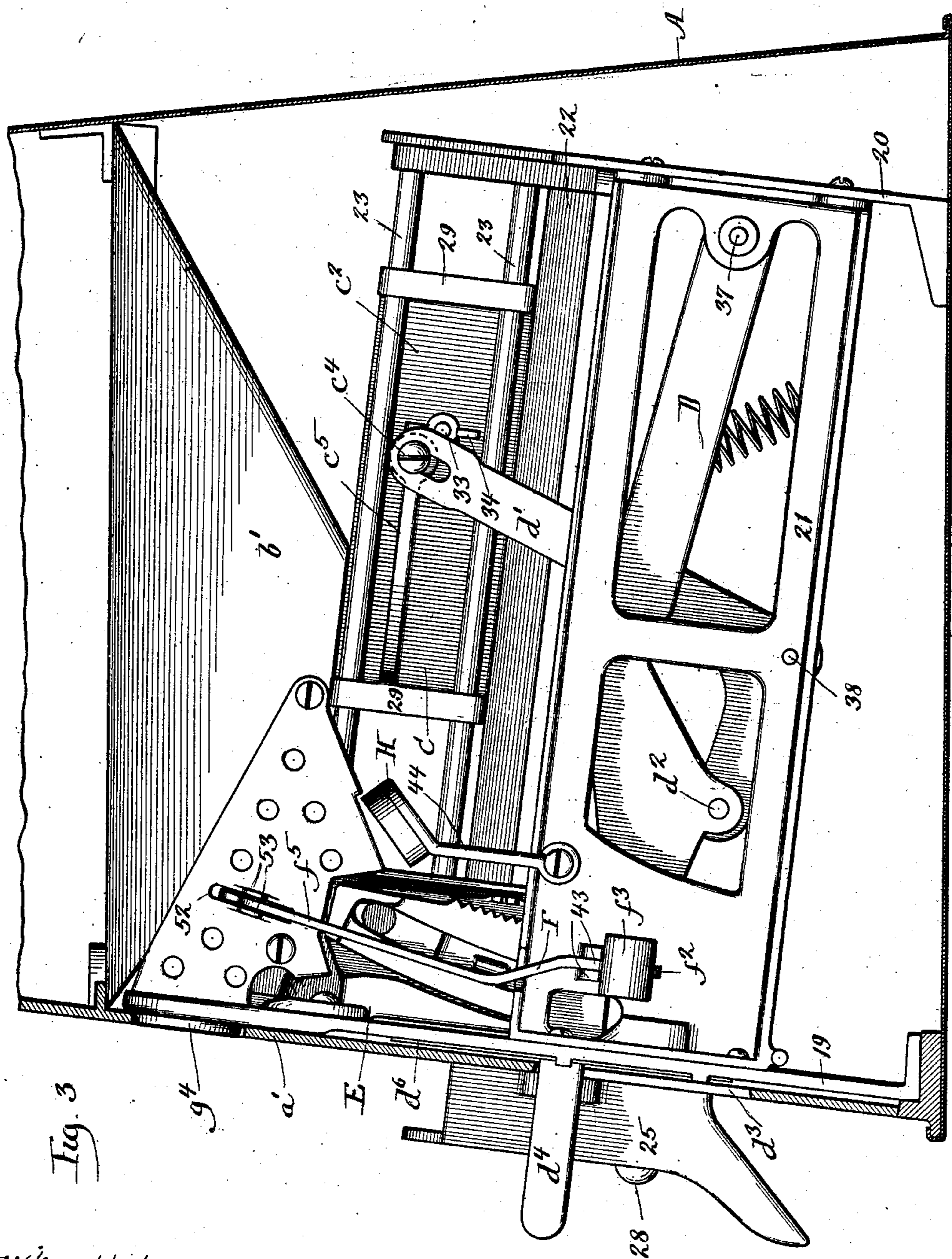


Fig. 3

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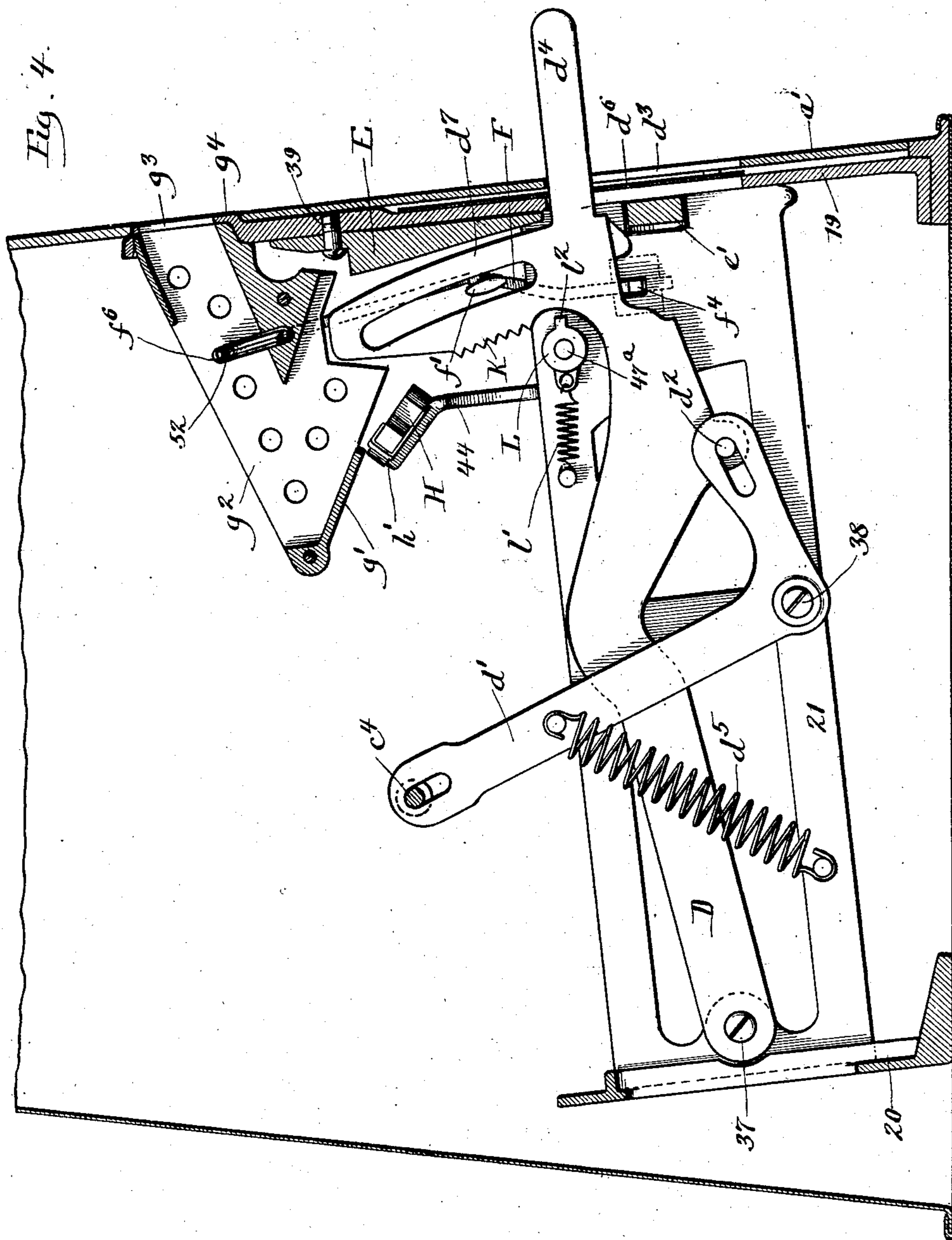
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8 SHEETS—SHEET 4.



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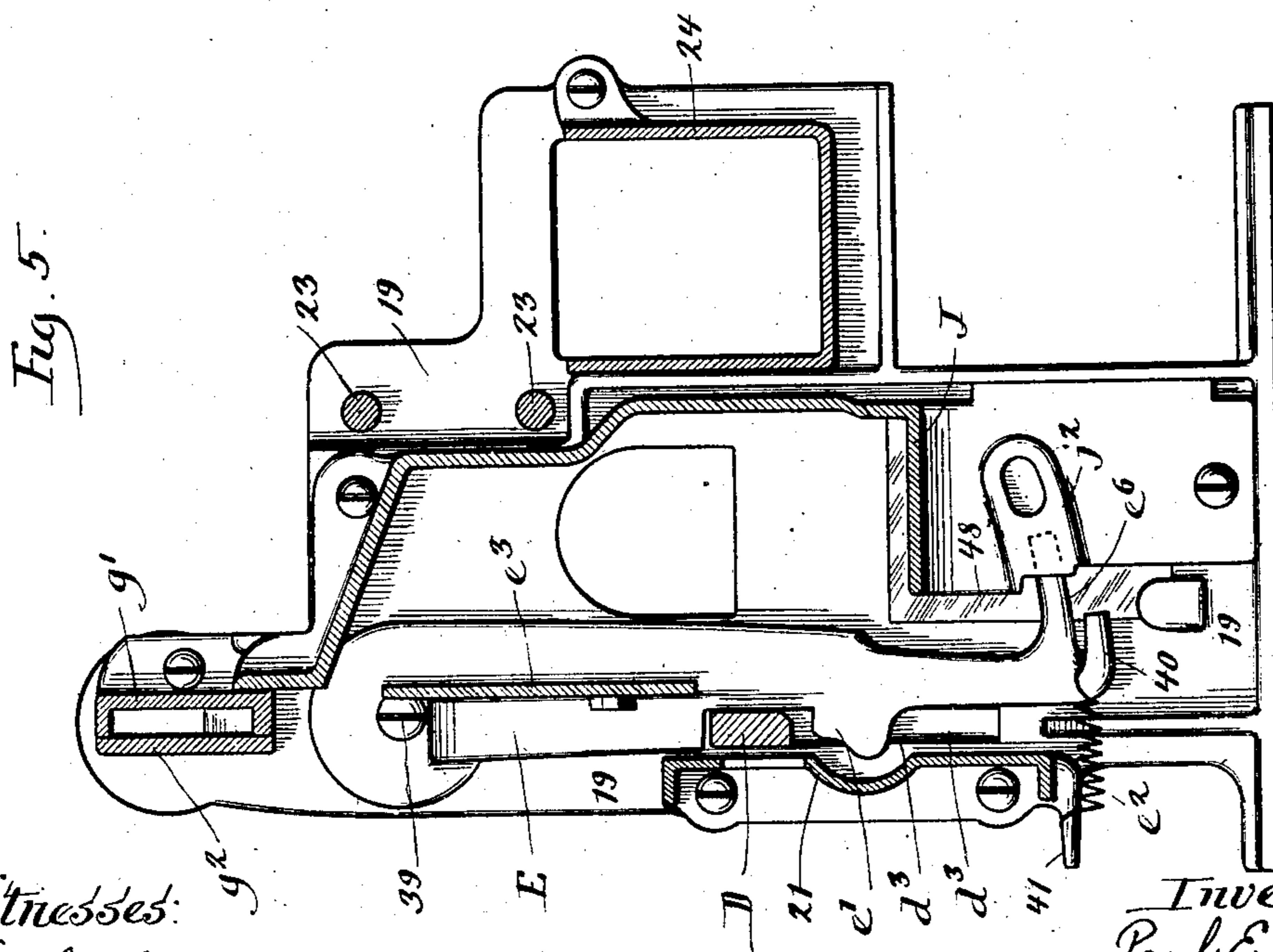
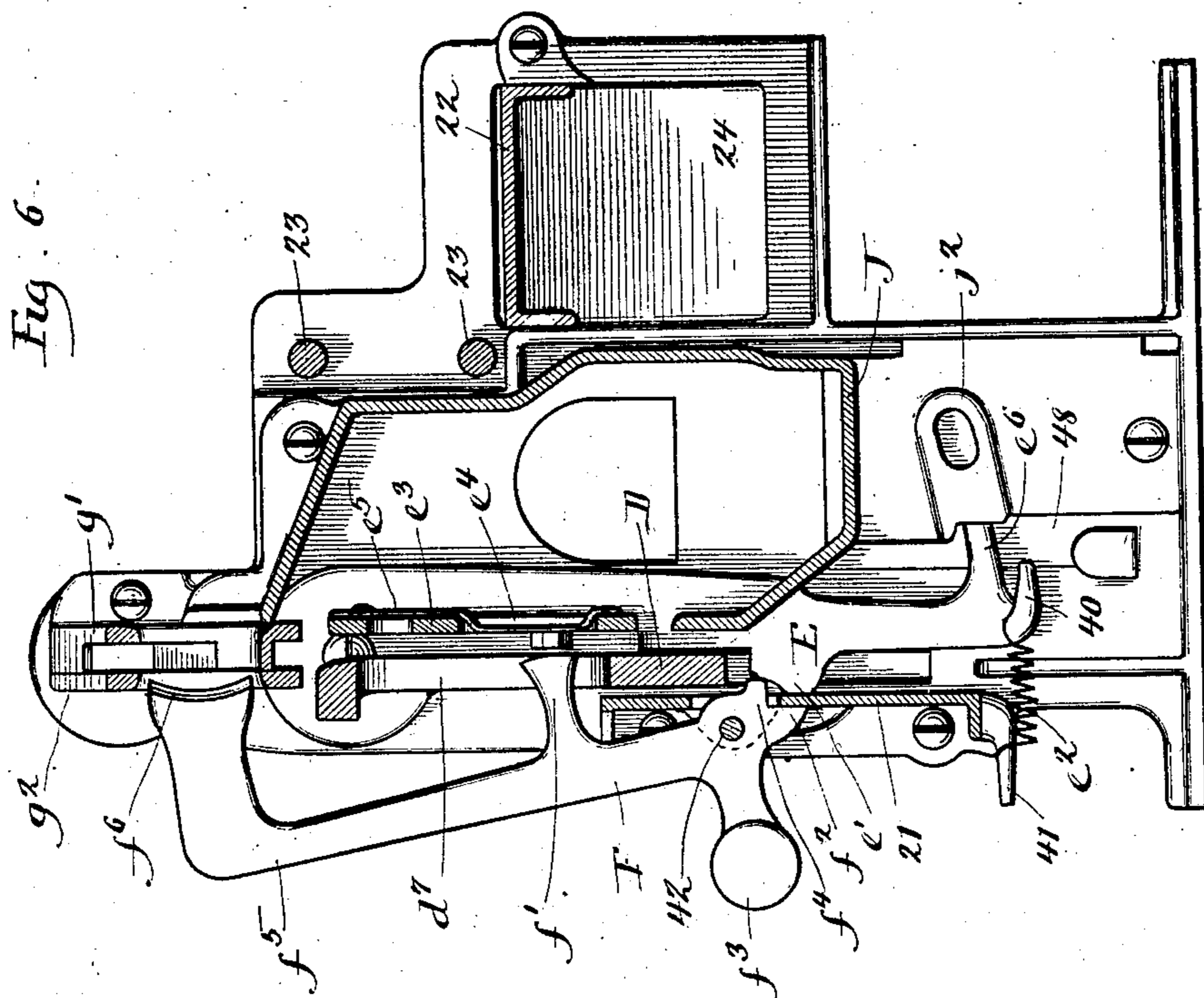
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8 SHEETS--SHEET 5.



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APPLICATION FILED AUG. 22, 1901.

NO MODEL.

8 SHEETS—SHEET 6.

Fig. 8

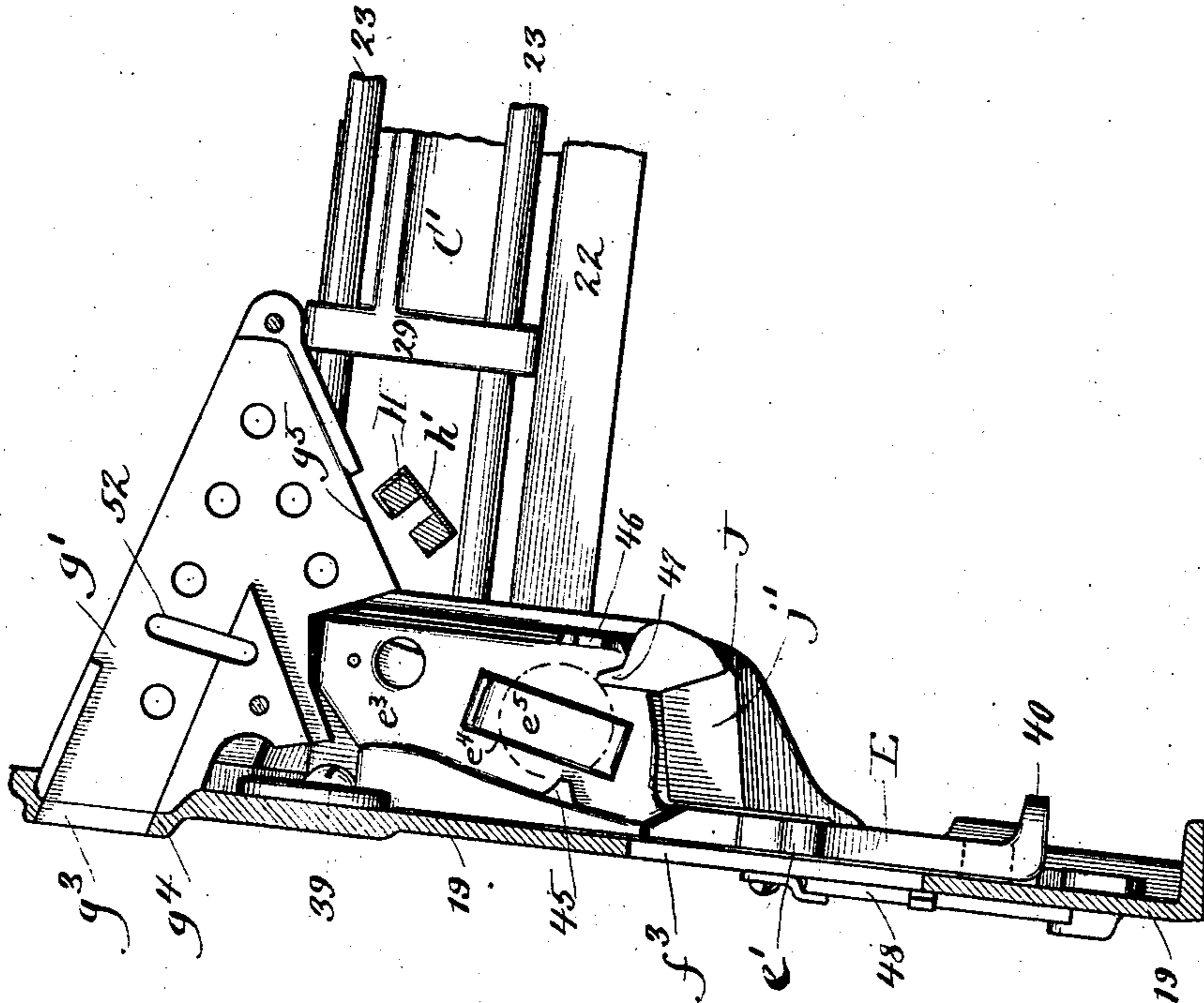
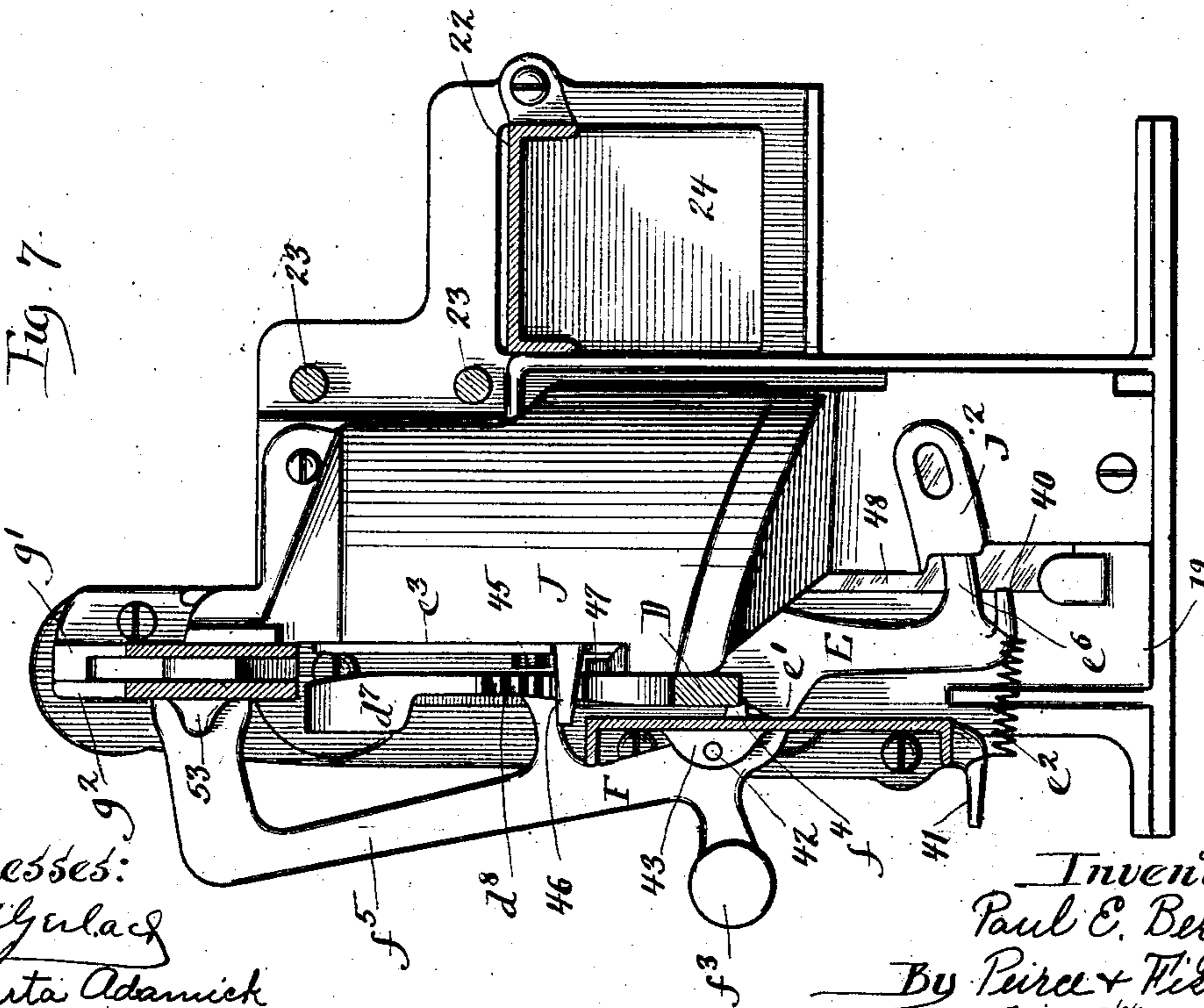


Fig. 7



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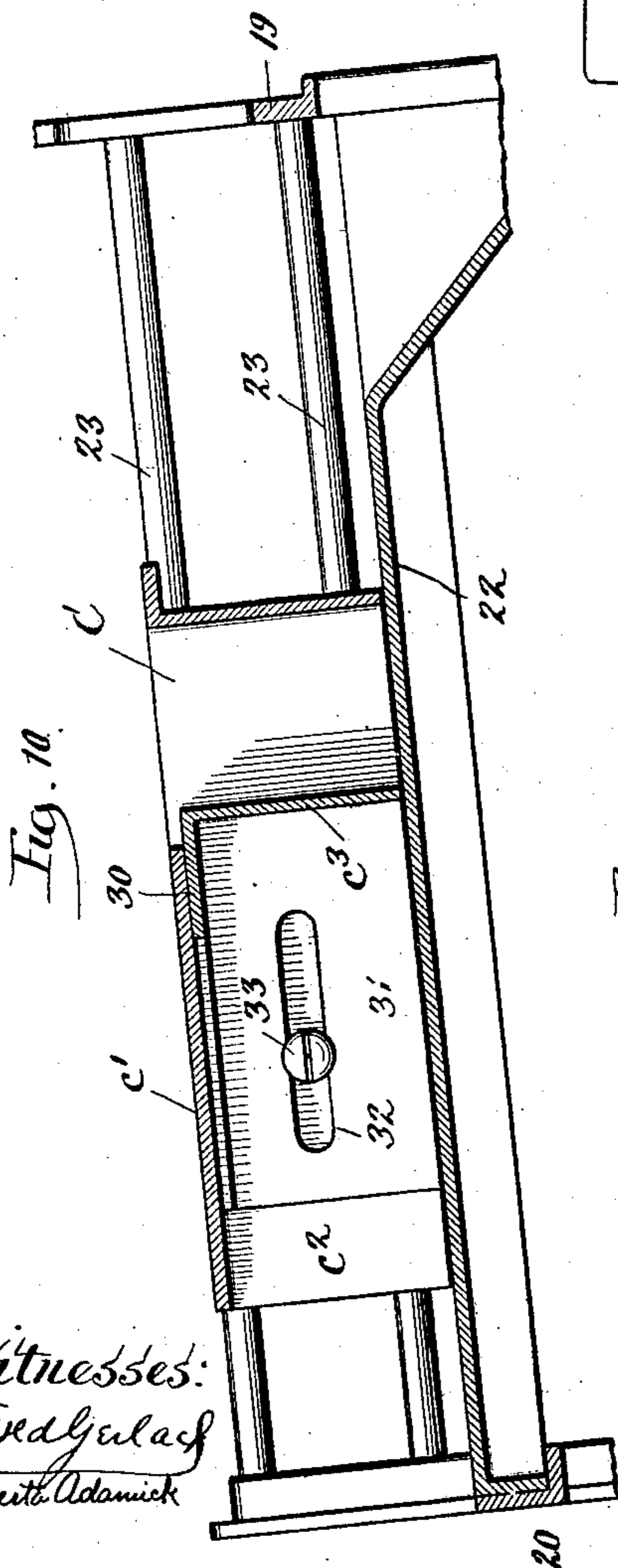
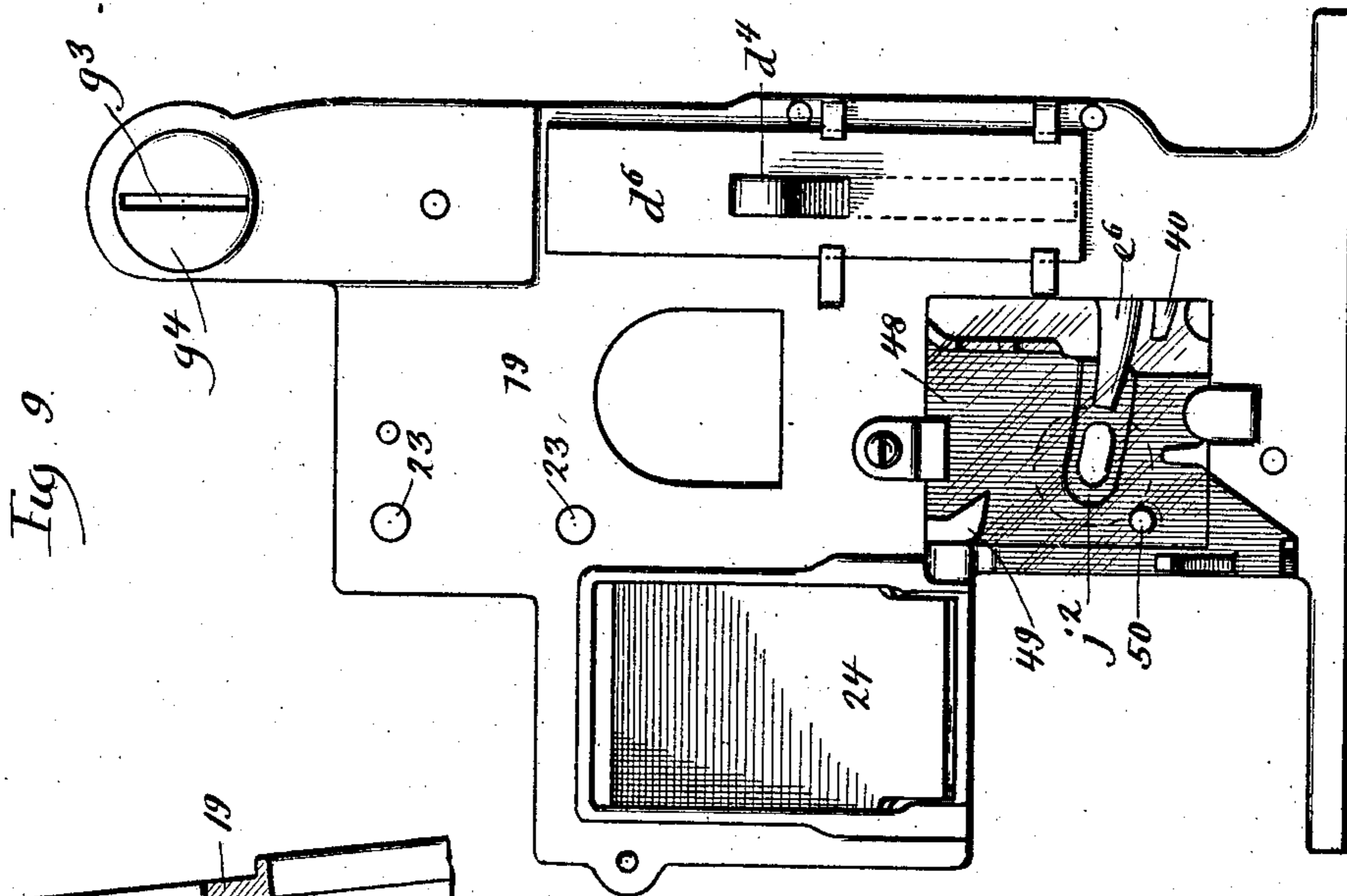
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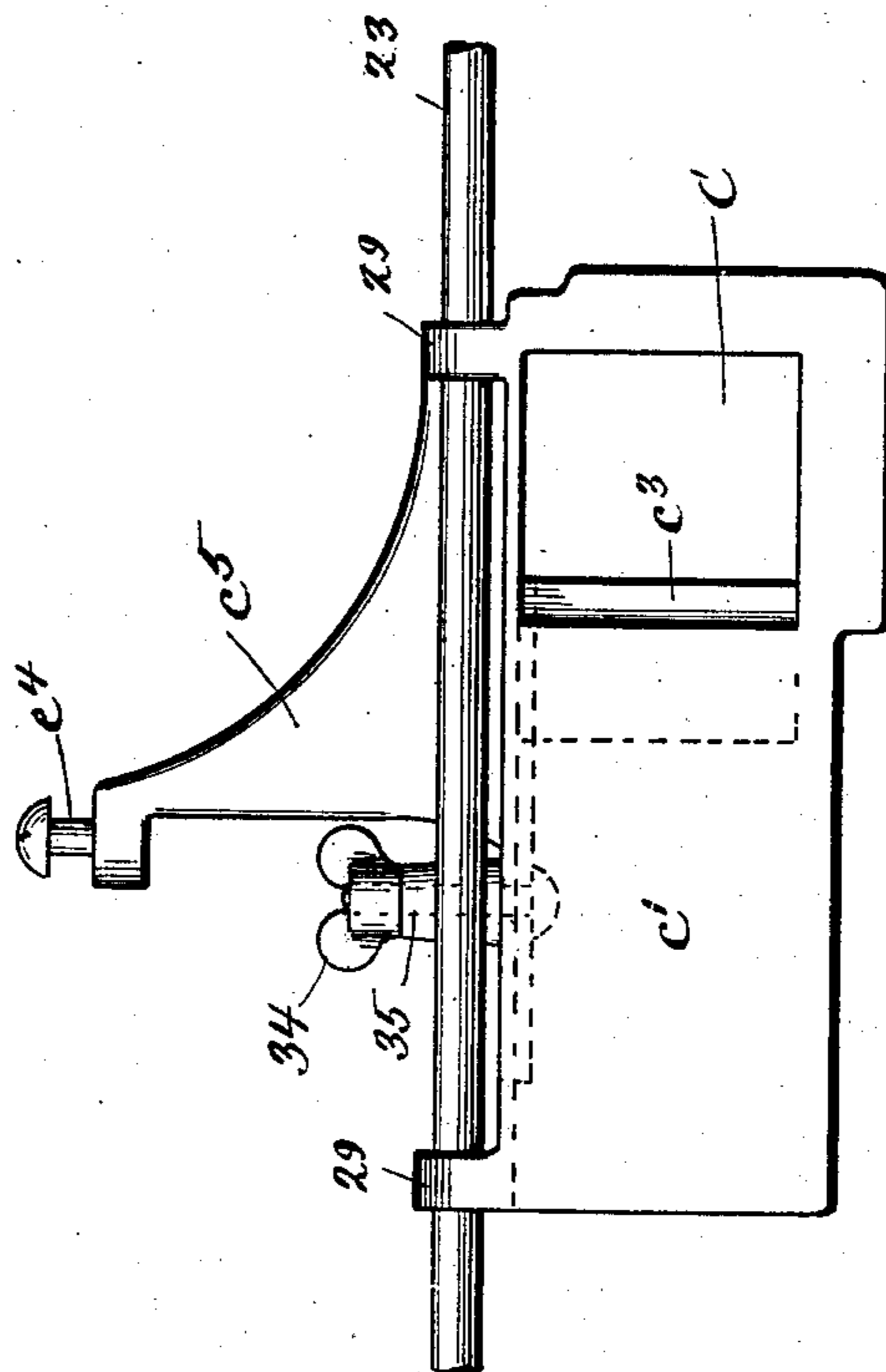
NO MODEL.

8 SHEETS—SHEET 7.



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Fig. 11.



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No. 763,040.

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COIN CONTROLLED MACHINE.

APPLIOATION FILED AUG. 22, 1901.

NO MODEL.

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Fig. 12

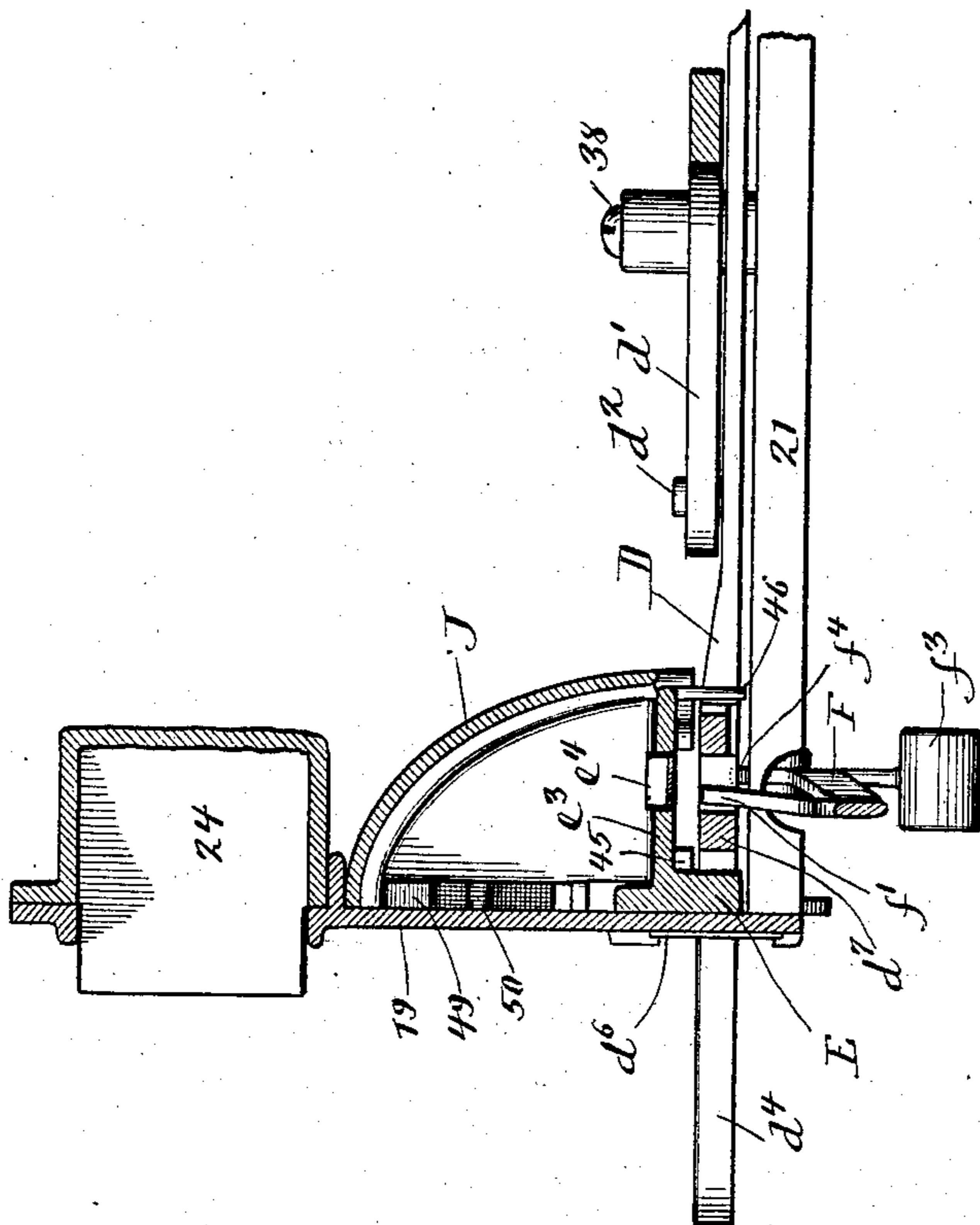
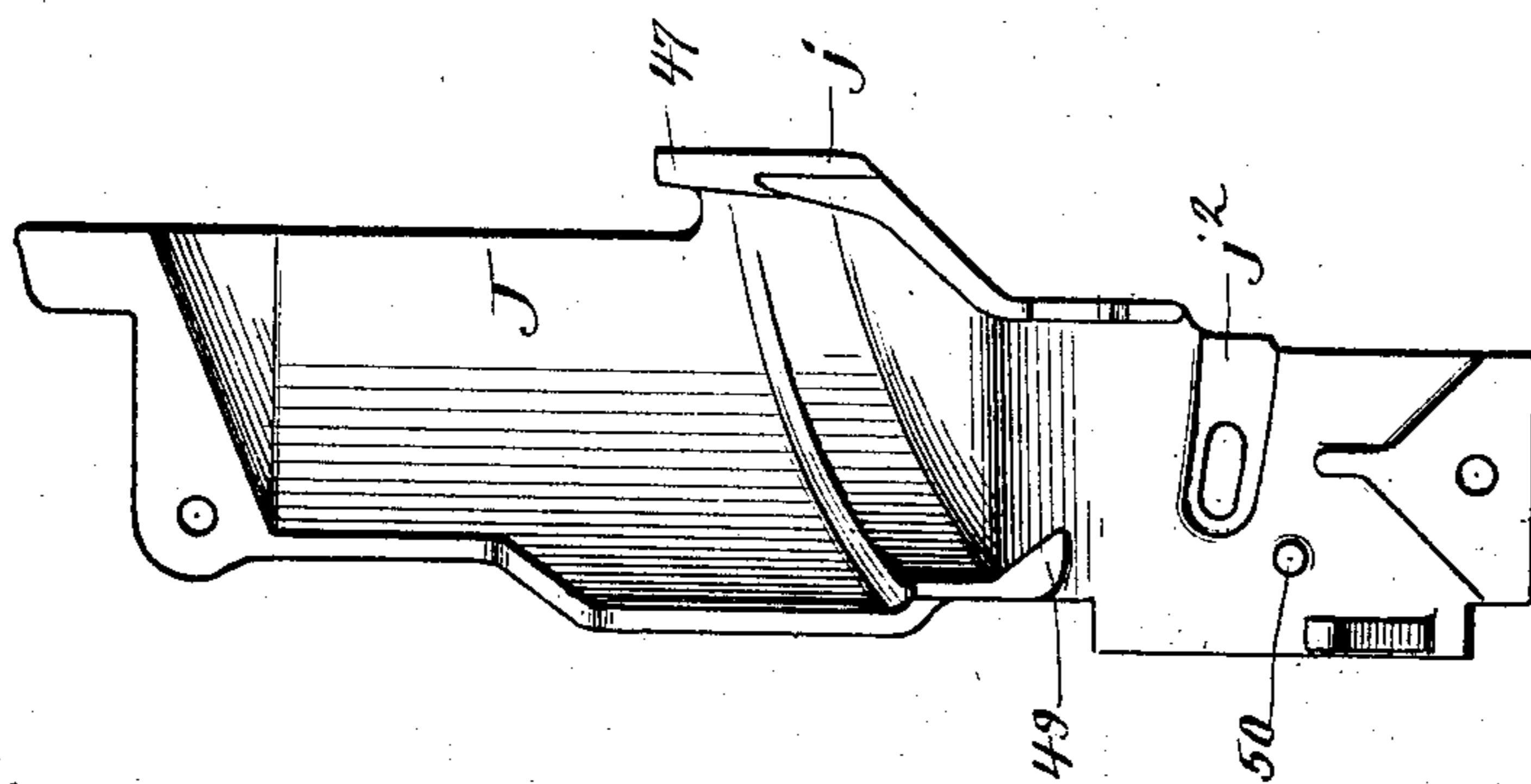


Fig. 13.



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UNITED STATES PATENT OFFICE.

PAUL E. BERGER, OF CHICAGO, ILLINOIS.

COIN-CONTROLLED MACHINE.

SPECIFICATION forming part of Letters Patent No. 763,040, dated June 21, 1904.

Application filed August 22, 1901. Serial No. 72,895. (No model.)

To all whom it may concern:

Be it known that I, PAUL E. BERGER, a resident of Chicago, county of Cook, State of Illinois, have invented certain new and useful Improvements in Coin-Controlled Machines, of which the following is a full, clear, and exact description.

My invention relates to coin-controlled machines, and, although adapted for other purposes, more particularly to that class of coin-controlled machines used for vending articles or material in different amounts for which the user of the machine pays through the medium of a coin or check of proper denomination.

The object of my invention is to provide an efficient apparatus for vending goods, and in particular for vending granular material—such as peanuts, pop-corn, and the like—and, further, to provide a construction which may be conveniently operated by a proper coin or check, but in which the fraudulent manipulation of the device by means of bogus coins or by the repeated operation through the medium of a single coin is prevented.

The invention consists in the features of construction set forth in the following description, illustrated in the accompanying drawings, and more particularly pointed out in the appended claims.

In the drawings, Figure 1 is a front view in elevation of my improved apparatus. Fig. 2 is a view in vertical section of the same. Fig. 3 is a side view in elevation of the operating mechanism, the external casing being shown in section. Fig. 4 is a similar view looking in the opposite direction, certain parts being shown in section. Figs. 5, 6, and 7 are detail views, in vertical section, of the operating mechanism, taken in planes at right angles to Fig. 4. Fig. 8 is a detail view of the operating mechanism, parts being shown in elevation and parts in cross-section. Fig. 9 is a detail view, in front elevation, of the operating mechanism, showing the coin-detector. Fig. 10 is a detail view, in longitudinal section, of the reciprocating carrier or measuring-valve. Fig. 11 is a detail plan view of the same. Fig. 12 is a detail view, in hori-

zontal section, of a part of the operating mechanism. Fig. 13 is a detail view, in front elevation, of a casting forming part of the apparatus.

The apparatus comprises an inclosing casing A, preferably formed of sheet metal and preferably rectangular in cross-section, with upwardly and inwardly inclined sides. A storage-chamber B for the goods or material to be vended is provided in the upper portion of the inclosing casing, the bottom of which is formed by the hopper *b'*, secured in position to the sides of the casing A. The upper portion of the casing and the storage-chamber is closed by a hinged cover *b''*, having a suitable lock 15, through which the storage-chamber may be replenished from time to time. The front of the storage-chamber is formed by a glazed opening 16 in the casing, by which the goods or material to be vended are displayed to view. The front of the casing A is provided with an opening in its lower portion, which is closed by a plate *a'*, preferably of cast metal, having at its lower edge an interlocking lug or lugs, as 17, and at its upper edge a lock 18, by which it is secured in position. By removing the plate *a'* the operating mechanism may be inspected and the accumulated coins or checks removed from the apparatus.

The operating mechanism is mounted in the lower portion of the casing A beneath the storage-chamber B upon a framework comprising the front and rear end plates 19 and 20, connected together upon one side by the vertically-disposed plate 21 and at the other side by the horizontally-disposed flanged plate 22 and the guide-rods 23. The parts of this frame, with the exception of the guide-rods 23, are all preferably of cast metal, formed with suitable interlocking ribs, and secured together by screws or bolts.

The horizontal plate 22 is provided at its forward end with a downwardly-inclined portion 24, preferably cast in piece therewith and forming the upper portion of the delivery-chute. The inclined bottom of this chute-section projects through an opening in the frame-plate 19 and through a flanged opening

20 in the front plate a' , as clearly indicated in Fig. 2. Over the flanged opening 20 is secured a piece 25, having a downwardly-inclined projecting bottom 26 and forming the lower portion of the delivery-chute. Sliding in guideways between the open front portion of the part 25 and the flanged opening 20 is a thick glass plate 27, normally resting upon the inclined bottom 26 and having an operating stud or handle 28.

A measuring valve or carrier C is mounted to slide upon the guide-rods 23 and over the horizontally-disposed plate 22, as shown in Figs. 2 and 3 and in detail in Figs. 10 and 11. This measuring valve or carrier is open-ended, as shown, and normally communicates with the hopper b' , (see Fig. 3,) but is movable to communicate with the chute in the forward part of the casing. The valve or carrier is provided with the rearwardly-projecting top flange or shield c' , which serves to close the opening of the hopper when the valve is drawn forward to communicate with the delivery-chute, and is also provided with the rearwardly-projecting side flange c^2 , having perforated ears 29, by which the valve is mounted upon the guide-rods 23. The rear wall c^3 of the carrier C, having the rearwardly-projecting top and side flanges 30 and 31, is adjustable, as shown in Figs. 10 and 11, in order that the size of the measuring-valve may be adjusted in accordance with the denomination of the coin for which the apparatus is designed or in accordance with the market price of the commodity to be vended.

To effect this adjustment, the side flange 31 of the wall c^3 is provided with a longitudinal slot 32, and a headed bolt 33, having at its outer end an adjustable thumb-nut 34, passes through the slot 32 and through a perforated nipple 35 on the side flange c^2 of the valve or carrier. By this means the wall c^3 may be adjusted back and forth and secured in any desired position. A plate 36 extends between the front plate 19 and the opening of the hopper b' and just above the path of the valve or carrier C, so that the contents of the latter may not be jarred out into the interior of the casing, but the entire contents thereof will pass through the delivery-chute.

A reciprocating actuating-shifter D is pivoted, as at 37, to the rear end of the side plate 21. The shifter D is operatively connected to the valve or carrier C by means of a bell-crank lever d' , pivoted, as at 38, to an offset near the lower edge of the side plate 21 and near the center thereof. The arms of the bell-crank are provided with slots at their ends, the lower one of which engages a pin d^2 on the shifter and the other of which engages a pin c^4 upon an offset c^5 , connected to or cast in piece with the valve or carrier C. (See Figs. 3, 4, and 11.) The central portion of the shifter D is upwardly bent, as shown in Fig. 4, so that the shifter may be depressed

without interfering with the offset to which the bell-crank d' is pivoted. The forward end of the shifter projects through a longitudinal slot d^3 in the end and cover plates 19 and a' to form an exterior operating-handle d^4 . The top and bottom edges of this slot serve as stops for limiting the throw of the movable parts, and a strong coiled spring d^5 , connected, as most clearly shown in Fig. 4, to the upper arm of the bell-crank d' and to the side plate 21, serves to hold the parts in normal position, with the valve or carrier in communication with the hopper and with the handle d^4 in engagement with the upper end of the slot d^3 . A thin flat plate d^6 is mounted on the handle d^4 to slide in guideways intermediate the end and cover plates 19 and a' and serves to close the slot d^3 whatever may be the position of the shifter and its handle, thereby preventing fraudulent manipulation of the operating mechanism through this slot.

A latch E for the shifter D is pivoted, as at 39, to the front plate 19 to swing in a plane at right angles to the plane of movement of the shifter, as most clearly shown in Fig. 5. The lower end of the latch is provided with a lug or abutment e' , which in the normal position of the apparatus projects laterally beneath the lower edge of the shifter, so that the latter may not be depressed to its full extent to operate the valve or carrier C; but in the normal position of the operating parts the lug e' is spaced apart a short distance from the lower edge of the shifter, so as to permit of a slight initial movement thereof. A coiled spring e^2 , attached to lugs 40 and 41, respectively, formed on the lower ends of the latch E and on the side plate 21, serves to hold the latch in its normal position to lock the shifter in the manner above described. The upper portion of the latch E is provided with a plate or flange e^3 , projecting rearwardly at right angles therefrom and preferably cast in piece therewith. A trip F for the latch is pivoted, as at 42, on the opposite side of the shifter and adjacent the normal position thereof to ears 43 on the outer face of the side plate 21. (See Figs. 3, 6, and 7.) The trip F is provided with a lateral projection f' , which extends through a slot in an upwardly-projecting portion d' of the shifter D and in line with an opening e^4 in the rearwardly-projecting flange e^3 of the latch E. The trip F is normally held in position with the projection f' spaced a short distance apart from the flange or plate e^3 and with a stop f^2 on its lower end in engagement with the plate 21 by a counterweighted portion f^3 , connected to or cast in piece with the trip at its lower end. (See Fig. 6.) The trip F is also provided at its lower end with a stud or lug f^4 , having a beveled upper edge which projects laterally through an opening in the side plate 21 into the path of the shifter D. As shown in Fig. 4, the stud f^4 is

normally positioned close to the upwardly-inclined lower edge of the shifter D and nearer than the locking-lug e' of the latch E, so that the trip may be operated by a slight initial movement of the shifter. Means are provided, such as hereinafter described, for delivering the inserted coin between the projection f' on the trip F and the flange or plate e^3 on the latch E, so as to operatively connect these parts. The trip F is, however, normally out of operative relation with the latch E, since the projection f' is narrower than and in line with the opening e^4 in the flange or plate e^3 . (See Fig. 6.)

A coin-chute formed of a channeled section g' and a cover-plate section g^2 , connected thereto, is arranged to communicate with a coin-slot g^3 , formed in a boss g^4 on an upwardly-projecting part of the end plate 19. The slot g^3 is of the proper size to admit a coin of required denomination, and boss g^4 , as shown in Fig. 3, projects through a circular opening in the front plate a' . The chute is V-shaped or bent laterally and edgewise to form an angle, (see Fig. 8,) and its lower end is arranged adjacent the upper ends of the flange e^3 of the latch E and the upwardly-projecting part d' of the shifter D when in normal position, so as to deliver the inserted coin between these parts. The lower edge of the chute is cut away at its lower end, as at g^5 , and a magnet H is arranged with its poles projecting in an inclined position beneath the opening thus formed. This magnet H, as shown in Fig. 3, is mounted upon an upright 44, secured to the side plate 21. If a coin of proper size is placed in the machine, it will strike upon one portion of the magnet H and will be deflected thereby between the parts e^3 and d' and between the lugs 45 and 46, formed upon the flange or plate e^3 . A third lug, 47, is formed upon a casting J, and the coin rests, as shown in dotted lines in Fig. 8, upon the lugs 45 and 47 between the projection f' and the slot e^4 to operatively connect the trip F and the latch E. The lug 46 projects laterally, as shown in Fig. 7, to prevent the coin from rebounding out of this position. If, however, a bogus coin of iron or steel is inserted, it will strike against the magnet H and be deflected thereby so as to drop outside of the lug 46 into the bottom of the casing, or if a coin or check smaller than the required size is inserted it will drop between the magnet H and the lug 46, which are spaced a proper distance apart, as shown in Fig. 8, to effect this result. Also if a second coin is dropped into the machine it will strike against the coin first inserted and be deflected thereby over the projection 46 into the bottom of the casing. In order to prevent a bogus coin of iron or steel sticking to the poles of the magnet H, and thus stop up the coin-chute, the upper one of such poles is partially insulated by a bent brass strip h' , so that the attraction of the magnet will

only be sufficient to deflect the bogus coin in the manner previously described. As a further precaution against coins or bogus checks smaller than the required size the lugs 45 and 47 are spaced apart a sufficient distance so that such a coin or check will drop between these lugs and through a cut-away portion j' in the casting J into the bottom of the casing. As a precaution against bogus coins or checks of pasteboard or other flexible material the opening e^4 in the flange e^3 is made sufficiently large so that when the trip F is operated the projection f' thereon will bend such a bogus coin and push it through the opening e^4 without effecting the disengagement of the latch E. In order to prevent a proper coin from being caught by the edges of the opening e^4 and to guide it to its proper place, a flat spring-plate e^5 is connected at its upper end to the inner face of the flange or plate e^3 and is provided with an offset portion projecting through the opening e^4 , so as to be flush with the outer face thereof, as shown in Fig. 6. By this means a proper coin will be guided to place; but the plate e^5 is of light springy material and easily deflected and will not offer sufficient resistance to prevent a disk of pasteboard or other flexible material from being bent and pushed through the opening e^4 .

When the trip and latch are thus operatively connected by means of a coin, a slight initial movement of the shifter will operate the trip by engaging with the lug f^4 thereon and disengage the latch, so that the shifter may be depressed to its full extent. In order to prevent the repeated manipulation of the shifter when once thus unlocked, a rack-section K is provided upon the upwardly-projecting portion d' and projects rearwardly to a slight extent, as shown in Fig. 4. The ratchet-teeth of this rack-section are, as shown, beveled in both directions. A pawl L for coöperating with the rack-section is pivoted, as at 47^a , to the side plate 21, is normally held in a central position by a coiled spring l' , and is provided with a square dog l^2 . As shown in Fig. 4, in the normal position of the shifter the rack-section K is above and out of engagement with the pawl L; but as soon as the shifter has been depressed to a slight extent the first tooth of the rack-section will depress the pawl L, and the downwardly-projecting dog l^2 will engage with one set of faces of the ratchet-teeth, thus preventing a return movement of the shifter until depressed to its full extent. When it is so depressed to its full extent, the pawl L will be disengaged from the ratchet-teeth and will be returned to its normal central position by the spring l' . On the upstroke of the shifter the upper one of the ratchet-teeth will strike the pawl L and deflect it, so that the dog l^2 will project upwardly and engage with the opposite set of faces of the ratchet-teeth, and thus prevent the return of the shifter un-

til it has completed its upstroke, when the latch E will be returned by its spring e^2 to normal position to lock the shifter D and the pawl L will be disengaged from the rack-section K and returned to its normal central position by the spring L' . This pawl-and-ratchet mechanism thus prevents the return of the shifter after an initial movement in either direction until it has completed its full stroke.

The portion of the shifter D and of its upright part or segment d^7 which engages the lug f^4 of the trip is provided with a recessed cam-surface d^8 , as shown in Fig. 7. When the shifter has been released, as previously described, and depressed through a part of its stroke, the recessed cam portion d^8 will come opposite the lug f^4 and the trip F, together with its projection f^7 , will be swung outwardly by its counterweight f^3 . The latch E is meanwhile held in its deflected position by the engagement of the opposite side of the shifter with the lug e' , which, as shown, has a beveled outer end. In this way the coin will be released from the grasp of the parts f^7 and e^4 and will drop into the lower portion of the casting J, which is bent forwardly and downwardly to form a coin-chute, as most clearly shown in the detail view, Fig. 13.

The casting J is connected to the rear face of the end plate 19, and its upper portion forms a casing about the operating parts, as shown in Fig. 7, so that the latch cannot be released by inserting a wire through the delivery-chute opening, while the lower coin-chute section thereof extends downwardly behind a glazed opening 48 in the end plate 19. The lower end of the latch E is provided with a laterally-projecting lug e^6 , which as the latch moves back and forth slides within a groove j^2 , formed in the lower end of the chute, section of the casting J, and behind the glazed opening 48. When the coin is released, as previously described, it will be directed by the chute-section of the casting J into the lower portion thereof and will rest behind the glazed opening 48 against a lug 49 on the casting J and upon the projection e^6 of the latch E, which is held in its deflected position by the engagement of the shifter D with the beveled lug e' . When the parts are returned to normal position, the projection e^6 will be withdrawn, the coin will drop and rest between a lug 50, formed upon the casting J, and the end of the projection e^6 , as shown in dotted lines in Fig. 9. In this position it will be exposed to view through a circular opening 51 in the front plate a' . The character of the coin used will thus be displayed to view and if of improper sort the fact will at once be detected and the fraud fastened upon the guilty party. At the next subsequent operation of the machine the projection e^6 will be forced by the downward movement of the shifter D to the left in Fig. 9 and the coin previously used forced over the stud 50 into

the bottom of the casing or into a suitable receptacle set to receive it. The coin used in such subsequent operation will fall upon the stud 49 and the projection e^6 and upon the upstroke of the shifter will fall, as previously described, between the stud 50 and the end of the projection 46, so that the character of each coin as it is used will be displayed through the opening 51 in the front plate a' .

In order to prevent the repeated manipulation of the machine by means of a coin suspended upon a string or light wire, the upper coin-chute is provided with a transverse opening 52, and the trip F is provided with an upwardly-extending portion f^5 , having an inwardly-bent upper end provided with a curved knife-blade f^6 . The knife is arranged opposite or in line with the opening 52 and between the supporting-lugs 53, connected to or cast in piece with the side of the coin-chute. As shown most clearly in Fig. 4, the opening 52 and the knife-blade 56 extend above and below the lower edge of the coin-chute, so that as soon as the shifter is depressed and the trip F operated the knife-blade f^6 will be projected through the chute and will sever any string or light wire to which the coin may be attached. The V-shaped formation of this coin-chute will prevent the manipulation of the device by a coin attached to a wire too heavy to be severed by the knife-blade f^6 .

The operation of the parts is as follows: The measuring-valve or carrier is normally positioned beneath the hopper b' of the storage-chamber B and will receive therefrom the amount of material for which the coin is to be paid. A coin of proper denomination is inserted through the coin-slot g^3 and is directed, as previously described, between the flange e^3 of the latch E and the projection f^7 of the trip F, being supported in such position by the lugs 45 and 47. The trip F and the latch E will thus be operatively connected, which of course would not be the case unless a coin is inserted. The user of the machine will then depress the shifter D by means of the external handle d^4 . At the first initial movement of the shifter its lower edge will engage the lug f^4 of the pivoted trip F, and the latter through the medium of the inserted coin will move the latch E against the tension of its spring e^2 , and thus remove the locking-lug e' on the latch from the path of movement of the shifter D. The handle d^4 may then be depressed to its full extent, and the carrier or measuring-valve C will be moved forward to communicate with the delivery-chute, and its contents will fall into the chute behind the glass plate 27. Meanwhile the inserted coin has been released, and the pawl L has engaged with the rack-section K to prevent the return of the shifter until it has completed its stroke. The released coin descends, as previously described, behind the glazed opening 48 and upon the projection e^6

of the latch E. At the end of the stroke, as previously described, the pawl L is disengaged from the ratchet K. When the user of the machine releases his grasp, the spring b^5 will operate to return the shifter D and connected parts to normal position, with the carrier or measuring-valve C in communication with the hopper b' , from which it will receive another charge of material. During the upstroke of the shifter the pawl L will engage the ratchet-teeth K in the manner previously described to prevent the return of the shifter until it has completed its upstroke, when the latch E will be returned to its normal position, with its lug e' below the lower edge of the shifter, by its spring e^2 . At the end of the upstroke the pawl L will disengage from the rack portion K, and the coin used will drop into position to be displayed to view through the opening 51 in the outer casing. The machine is then in condition for a subsequent manipulation, the coin which has been previously used being ejected from the projection e^6 from the detecting device by such subsequent manipulation in the manner previously described. The manipulation of the machine by bogus coins of iron or steel, by those of small size, and by a coin attached to a string or wire is prevented in the manner already described.

It is obvious that numerous changes may be made in the details of construction by the skilled mechanic without departure from the essentials of the invention.

Having described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In vending-machines, an inclosing casing, a carrier, an actuating spring-held shifter having an external handle and having operating connections with said carrier, a pivoted spring-held latch for said shifter arranged to swing in a plane at right angles to the plane of movement of said shifter, a pivoted trip for said latch normally out of operative relation therewith and arranged to be actuated by a slight initial movement of said shifter, a coin-chute for delivering the inserted coin into position at right angles to the plane of movement of and between said trip and said latch to operatively connect these parts, lugs for supporting the coin in such position so arranged that the coin is pushed therefrom by the operation of said latch and trip and means for withdrawing one of said last-named parts to release the coin after a predetermined movement of the shifter.

2. In coin-controlled machines, an inclosing casing, a carrier, a pivoted spring-held shifter having an external handle and having connections with said carrier, a pivoted spring-held latch for said shifter, a pivoted trip for said latch, said trip and said latch arranged to swing at right angles to the plane of movement of said shifter, a coin-chute for delivering the inserted coin into position at right angles to

the plane of movement of and between said trip and said latch to operatively connect these parts, lugs for supporting the coin in such position from which the coin is pushed by the operation of said trip and latch, means on said shifter for moving said trip toward said latch by a slight initial movement of said shifter and to move said trip away from said latch to release the coin after a further movement thereof, and means for preventing the return movement of said shifter after such slight initial movement until it has completed its stroke.

3. In a coin-controlled machine, an inclosing casing, a carrier in said casing, a horizontally-disposed, pivoted, spring-held shifting lever having an external handle, operating connections between said shifting lever and said carrier, a pivoted spring-held latch engaging the lower edge of said shifting lever, a pivoted trip for said latch, said trip and latch being arranged to swing in a plane at right angles to the movement of said shifting lever, a coin-chute for delivering the inserted coin between said shifter and said latch, a fixed lug for supporting the coin in position from which the coin is pushed by the operation of said trip and latch and a cam on the side of said shifting lever arranged to move said trip toward said latch to release the latter through the medium of the coin after a slight initial movement of said lever, and to withdraw said trip to release the coin after a further movement thereof.

4. In a coin-controlled machine, the combination with an inclosing casing, of a reciprocating shifter having an external operating-handle, a latch for said shifter having a slot therein, a trip for said latch having a projection in line with said slot, said trip and latch swinging in a plane at right angles to the plane of movement of said shifter, means for delivering the inserted coin into position at right angles to the plane of movement of said trip and said latch and between said projection and said latch and a cam-surface on said shifter for engaging said trip, whereby the latter is moved in one direction to disengage the latch and in the opposite direction to release the coin.

5. In a coin-controlled machine, an inclosing casing, a carrier, a spring-held pivoted shifter having an external operating-handle, a spring-held pivoted latch for locking said shifter, a pivoted trip for said latch, said trip and said latch being arranged to swing in a plane at right angles to the plane of movement of said shifter, a slotted flange on said latch arranged in a plane at right angles to its plane of movement, a projection on said trip narrower than and in line with said slot, a lug on said trip adapted to be engaged by said shifter to operate the trip by a slight initial movement of said shifter and a coin-chute arranged to deliver the inserted coin into position at right

angles to the plane of movement of said trip and said latch, and between said flange and said projection.

6. In a coin-controlled machine, the combination with an inclosing casing, of a spring-held pivoted shifter having an external operating-handle, a spring-held pivoted latch for locking said shifter mounted to swing in a plane at right angles to the plane of movement of said shifter and having a slotted projecting flange, a pivoted trip for said latch having a projection narrower than and in line with said slot, means for delivering the inserted coin into position at right angles to the plane of movement of said shifter and between said projection and said slotted flange, a lug on said trip, a cam-surface on said shifter for engaging said lug, whereby said trip is operated by a slight initial movement of the shifter to disengage said latch and by a further movement thereof to release the coin, and means for preventing the return movement of said shifter after such slight initial movement, until said shifter has completed its stroke.

7. In a coin-controlled machine, the combination with an inclosing casing, of an actuating-shifter having an external operating-handle, a latch for locking said shifter, a slot in said latch, a spring-plate normally closing said slot and a trip for said latch having a projection narrower than and in line with said slot, said shifter being arranged to operate said trip by a slight initial movement to disengage said latch.

8. In a coin-controlled machine, the combination with an inclosing casing, of a pair of coin-connected parts, one of said parts having a slot and the other of said parts having a projection narrower than and in line with said slot, a spring-plate normally closing said slot and means for delivering the inserted coin into position between said parts.

9. In a coin-controlled machine, an inclosing casing, a spring-held actuating-shifter having an external operating-handle, a spring-held latch for said shifter, a trip for said latch normally out of operative relation therewith, a coin-chute for delivering the inserted coin into position between said latch and said trip to operatively connect said parts, a support for holding the coin in position from which the coin is pushed by the operation of said latch and shifter, means on said shifter for moving said trip toward said latch after a slight initial movement of the shifter, a rack-section on said shifter and a pawl cooperating therewith to prevent the return movement of said shifter after such slight initial movement and until it has completed its stroke and means for

retracting said trip before the shifter completes its movement to release the coin from between the trip and said latch.

10. In a coin-controlled machine, the combination with an inclosing casing, of a pivoted spring-held shifter, a pivoted spring-held latch for said shifter, a pivoted trip for said latch, said trip and said latch being arranged to swing in a plane at right angles to the movement of said shifter, a coin-chute for delivering the inserted coin into position at right angles to the plane of movement of said trip and said latch and between said parts, means on said shifter for operating said trip to disengage said latch after a slight initial movement of said shifter, a rack-section on said shifter and a spring-held pawl arranged to engage said rack-section after such slight initial movement of the shifter to prevent the return movement thereof until it has completed its stroke.

11. In a coin-controlled machine, an inclosing casing, an actuating-shifter having an external operating-handle, a latch for locking said shifter, a trip for said latch normally out of operative relation therewith, a coin-chute for delivering the inserted coin into position between said latch and trip to operatively connect said parts, means for operating said trip after a slight initial movement of said shifter, means for preventing the return movement of said shifter after such slight initial movement and until it has completed its stroke and means arranged to retract said trip before the shifter completes its movement to release the coin from between the trip and said latch.

12. In a coin-controlled machine, the combination with an inclosing casing, of an actuating-shifter, a pivoted latch for locking said shifter, a pivoted trip for said latch normally out of operative relation therewith, said latch and trip swinging in a plane at right angles to the plane of movement of said shifter, a coin-chute for delivering the inserted coin into position at right angles to the plane of movement of and between said trip and latch to operatively connect these parts and a pair of lugs spaced apart for supporting said coin in such position, one of said lugs being fixed in position and the other mounted upon said latch, whereby the coin is pushed from said fixed lug by the operation of said trip and latch, said trip being arranged to be actuated in one direction by said shifter to release said latch and in the opposite direction to release the coin.

PAUL E. BERGER.

Witnesses:

ALBERTA ADAMICK,
THOMAS R. FLACK.