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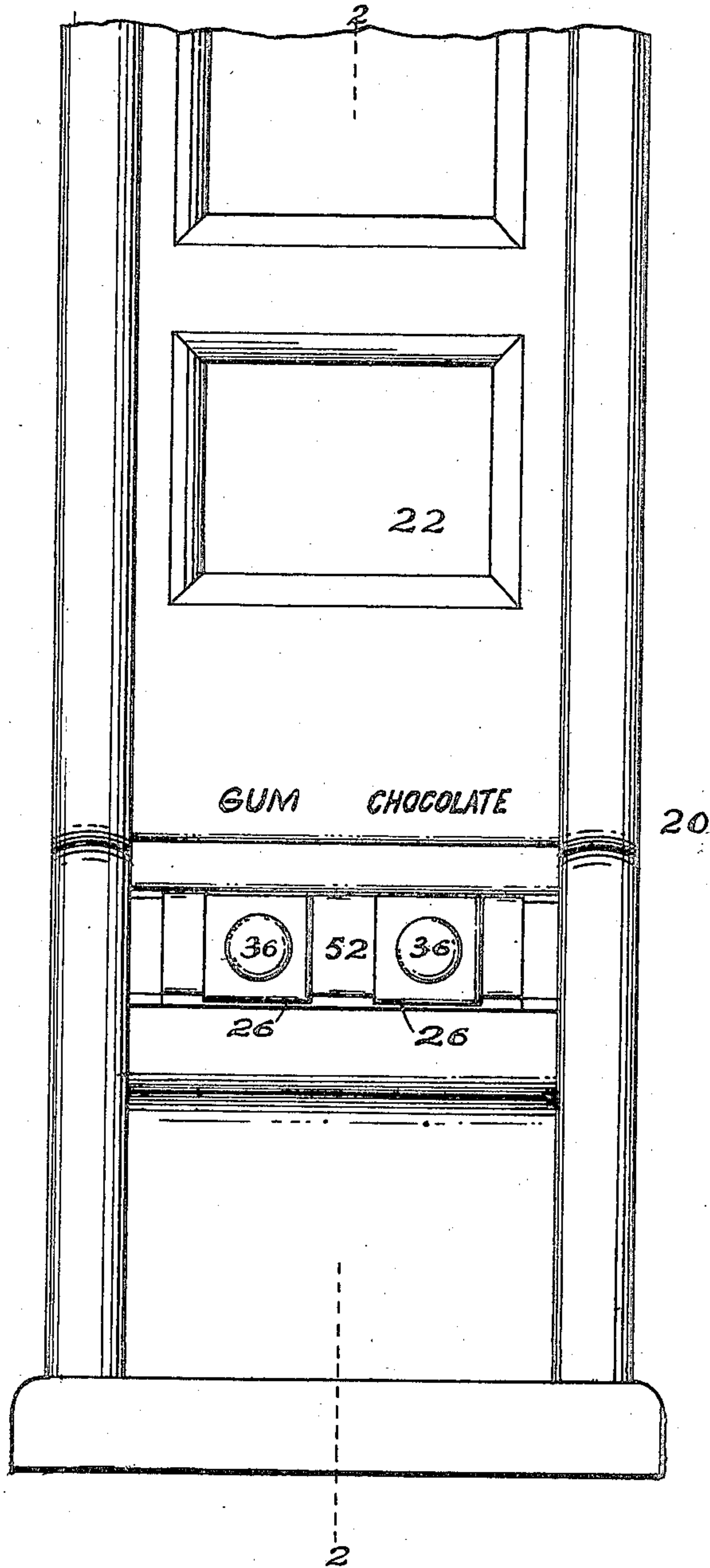
PATENTED DEC. 31, 1907.

E. F. SPAULDING.  
COIN CONTROLLED VENDING MACHINE.

APPLICATION FILED JAN. 12, 1907.

6 SHEETS—SHEET 1.

Fig. 1.



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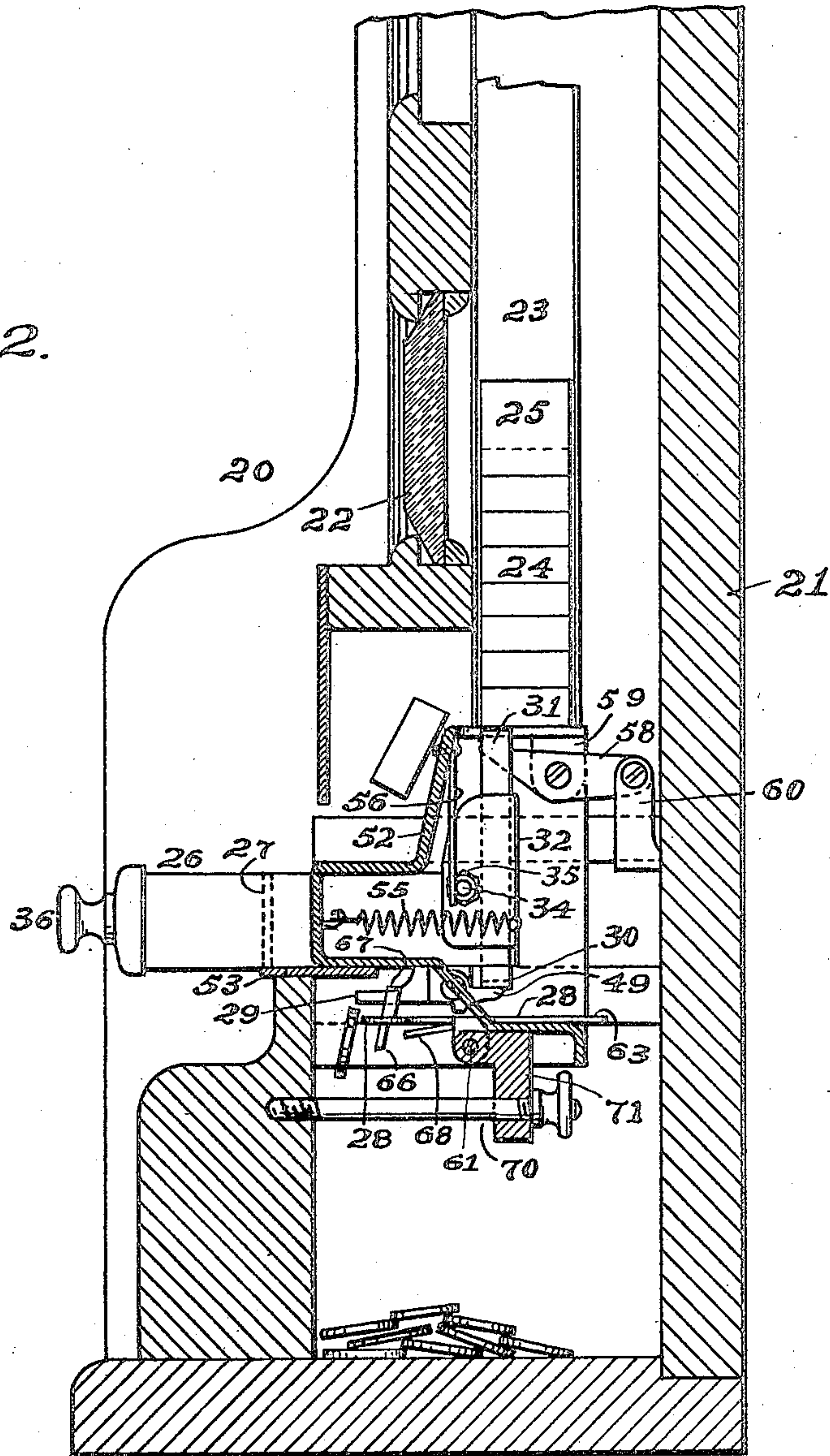
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6 SHEETS—SHEET 2.

Fig. 2.



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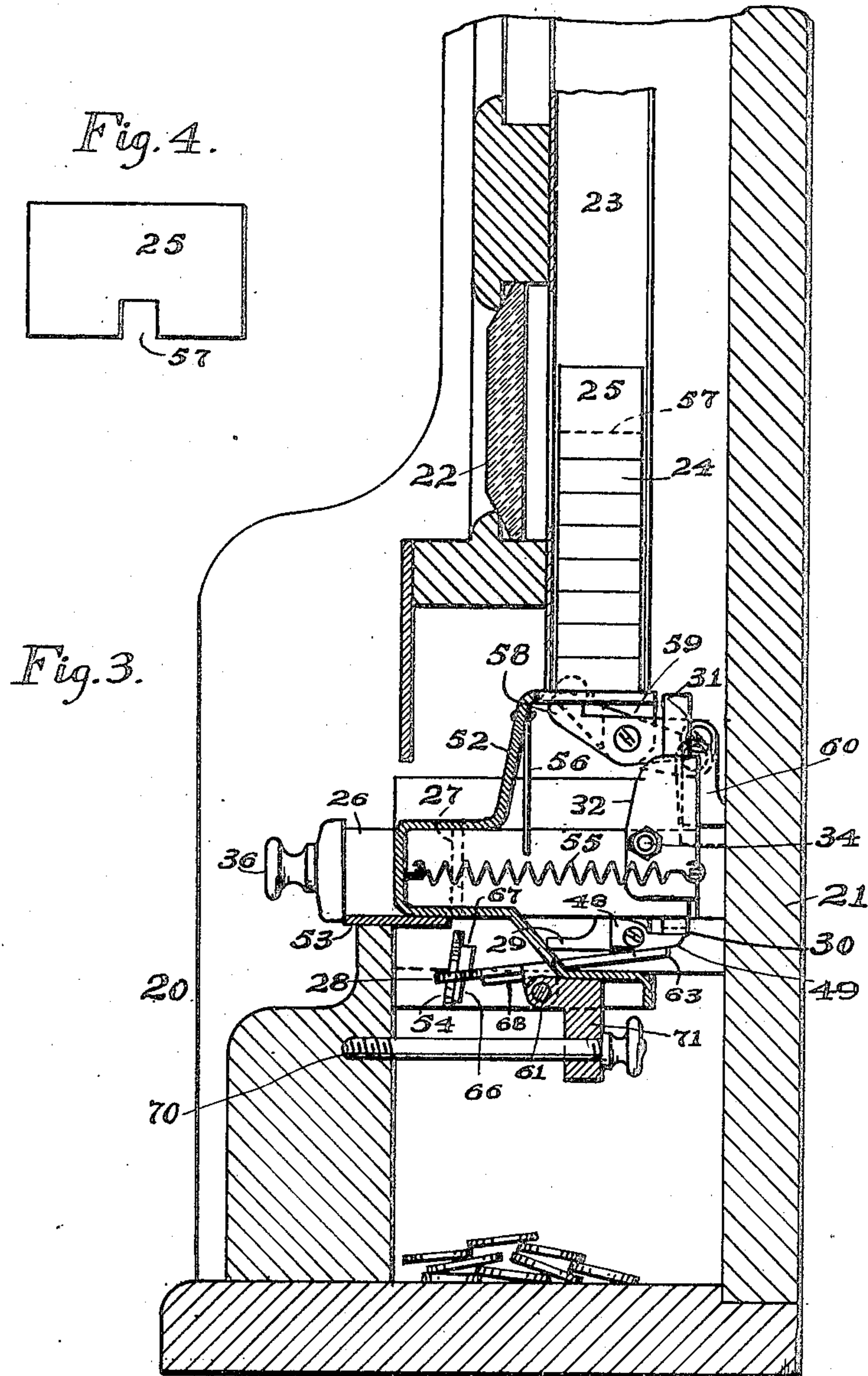
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6 SHEETS—SHEET 3.



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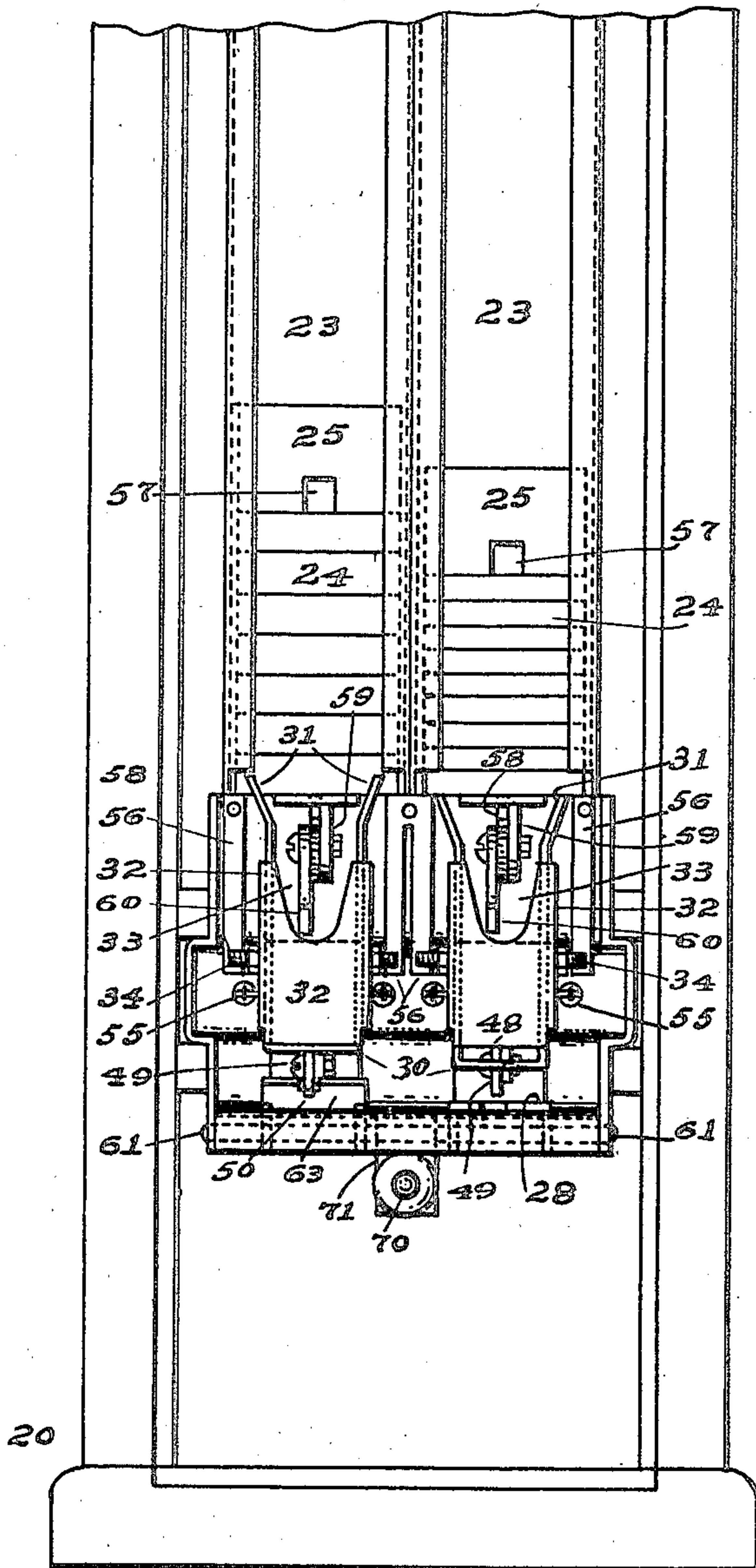
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6 SHEETS—SHEET 4.

Fig. 5.



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6 SHEETS—SHEET 5.

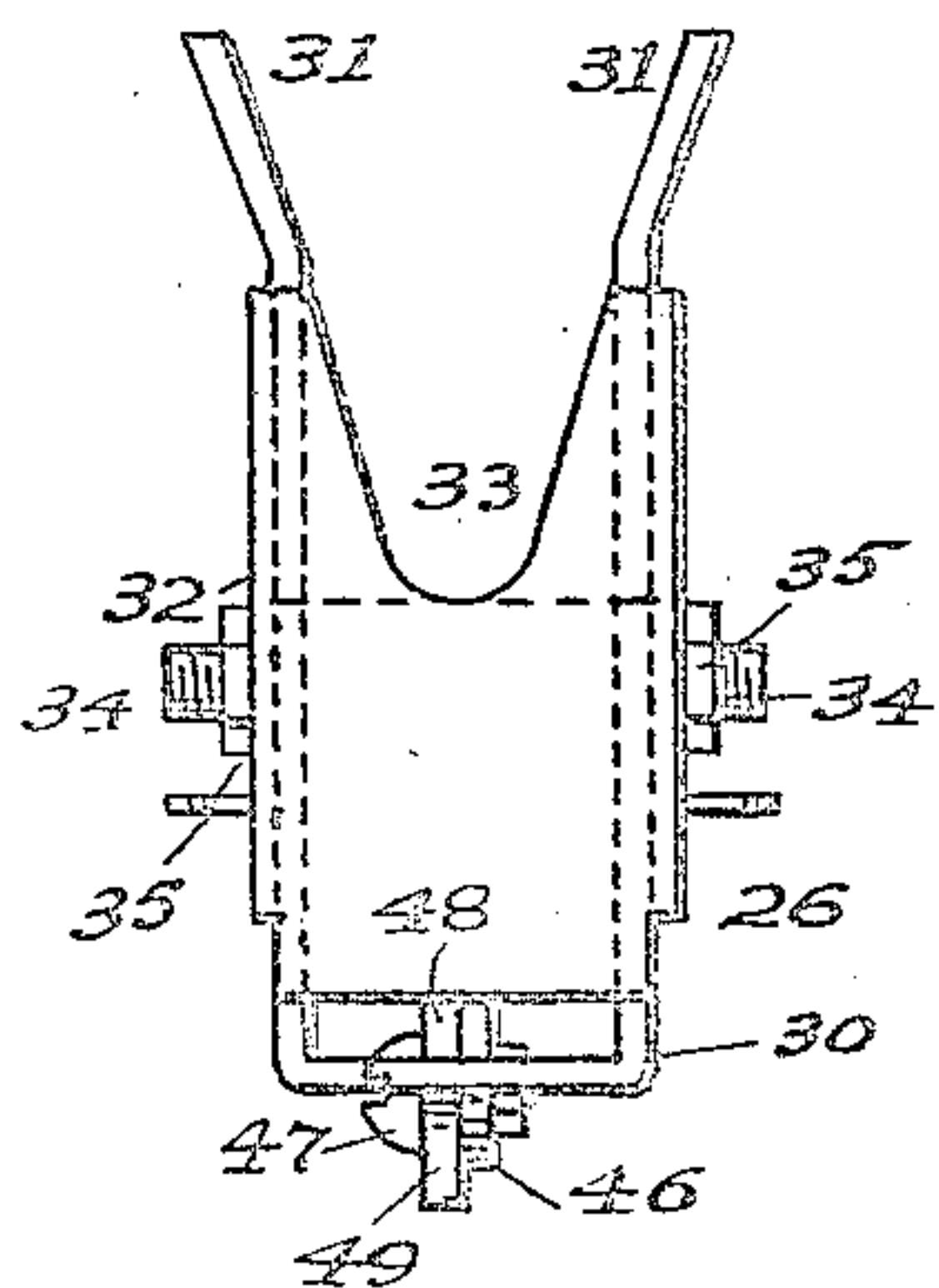
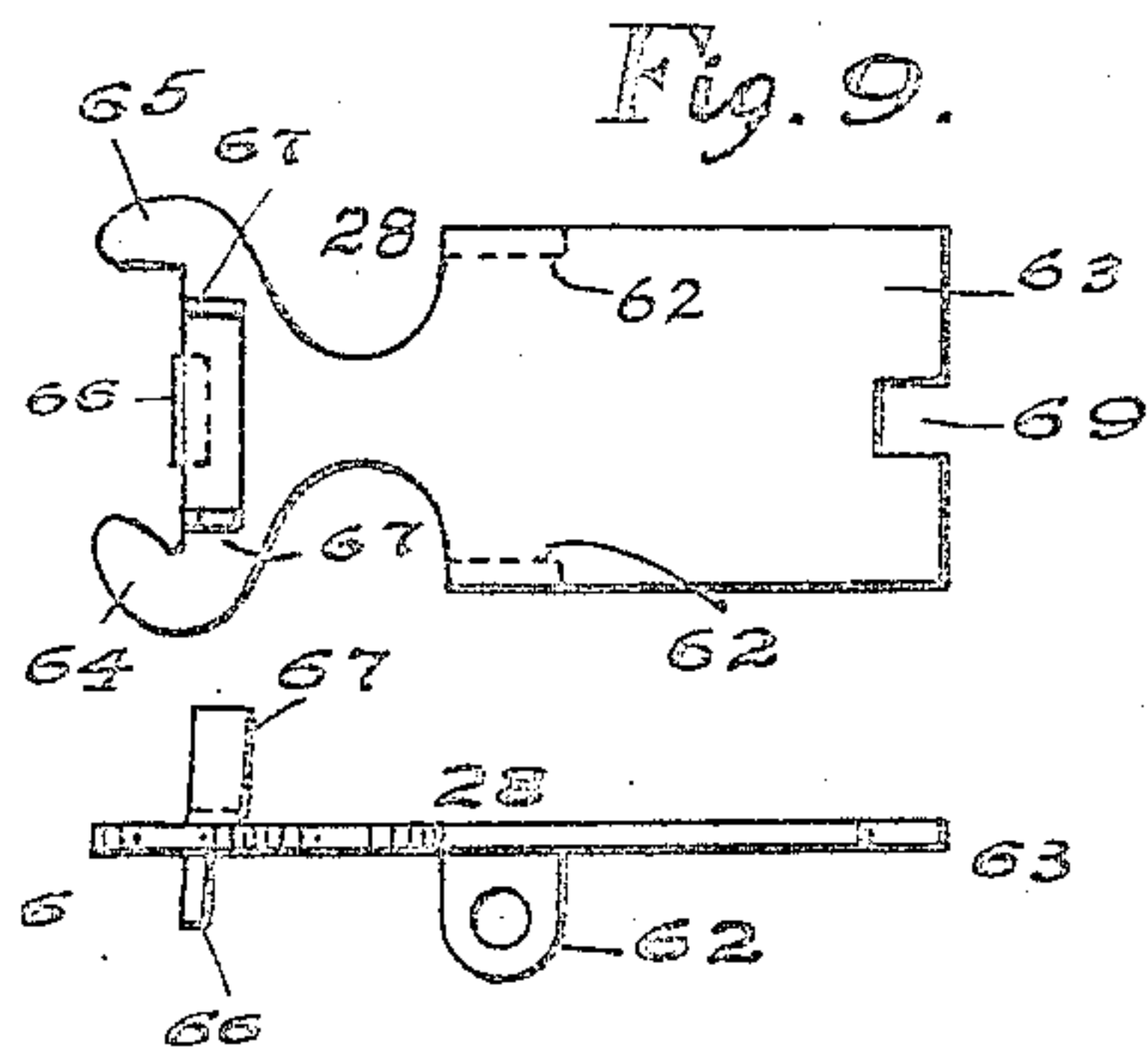


Fig. 8.

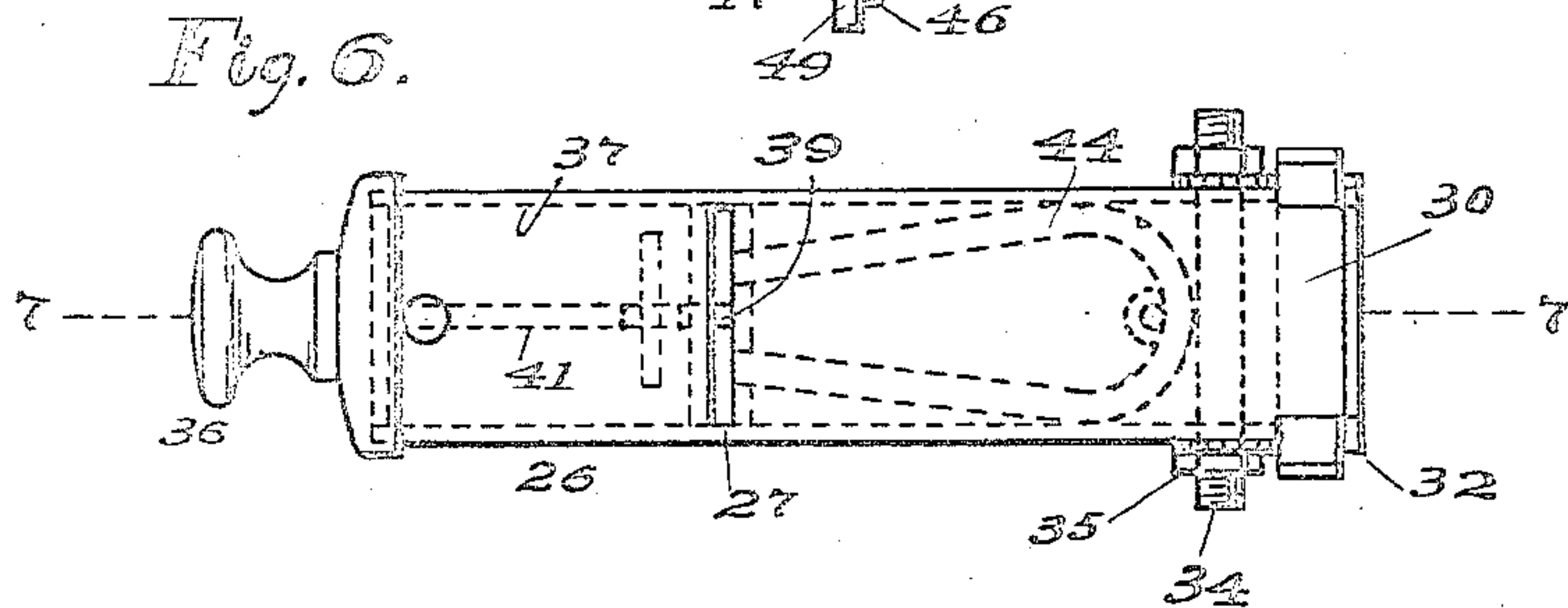


Fig. 6.

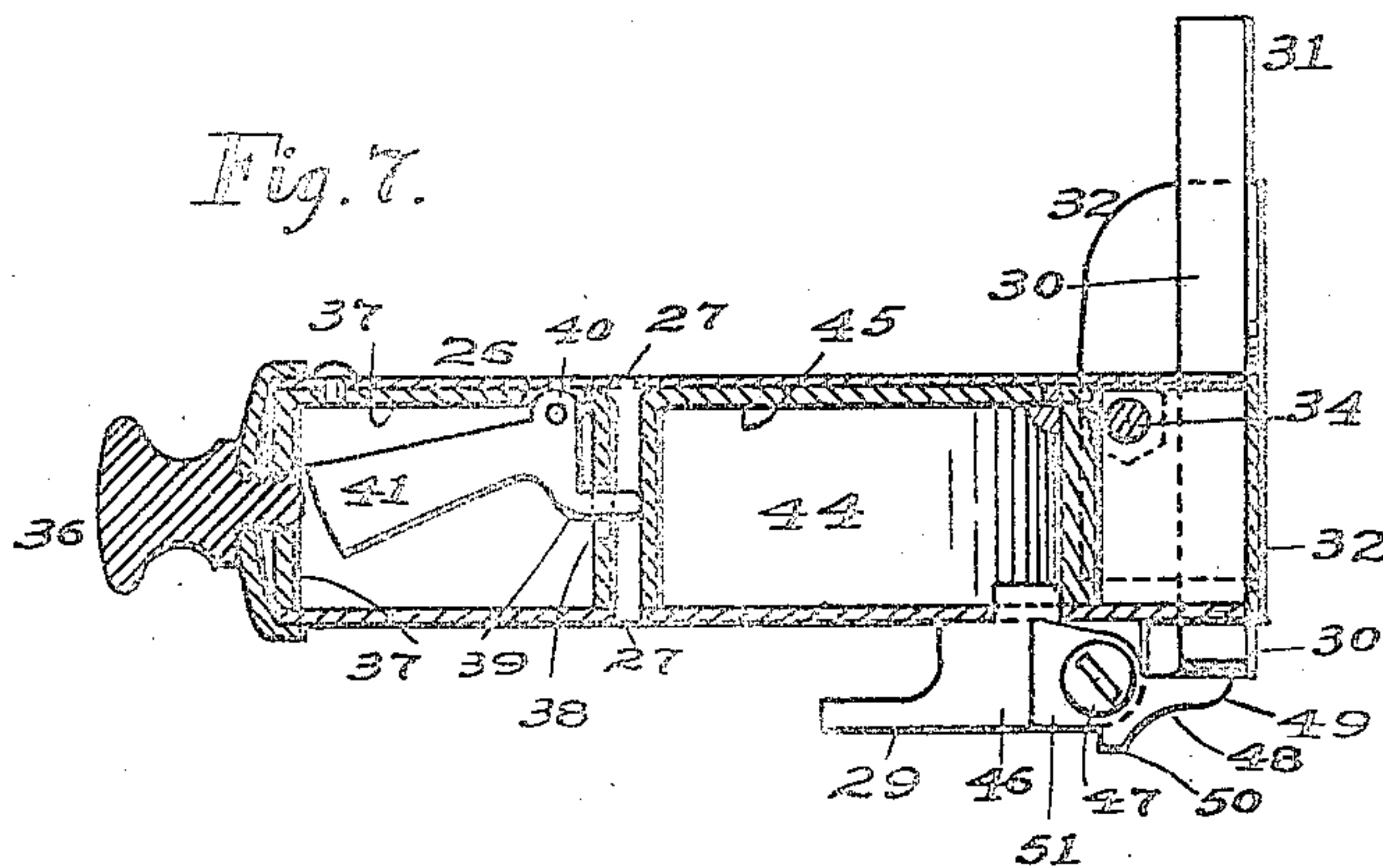


Fig. 7.

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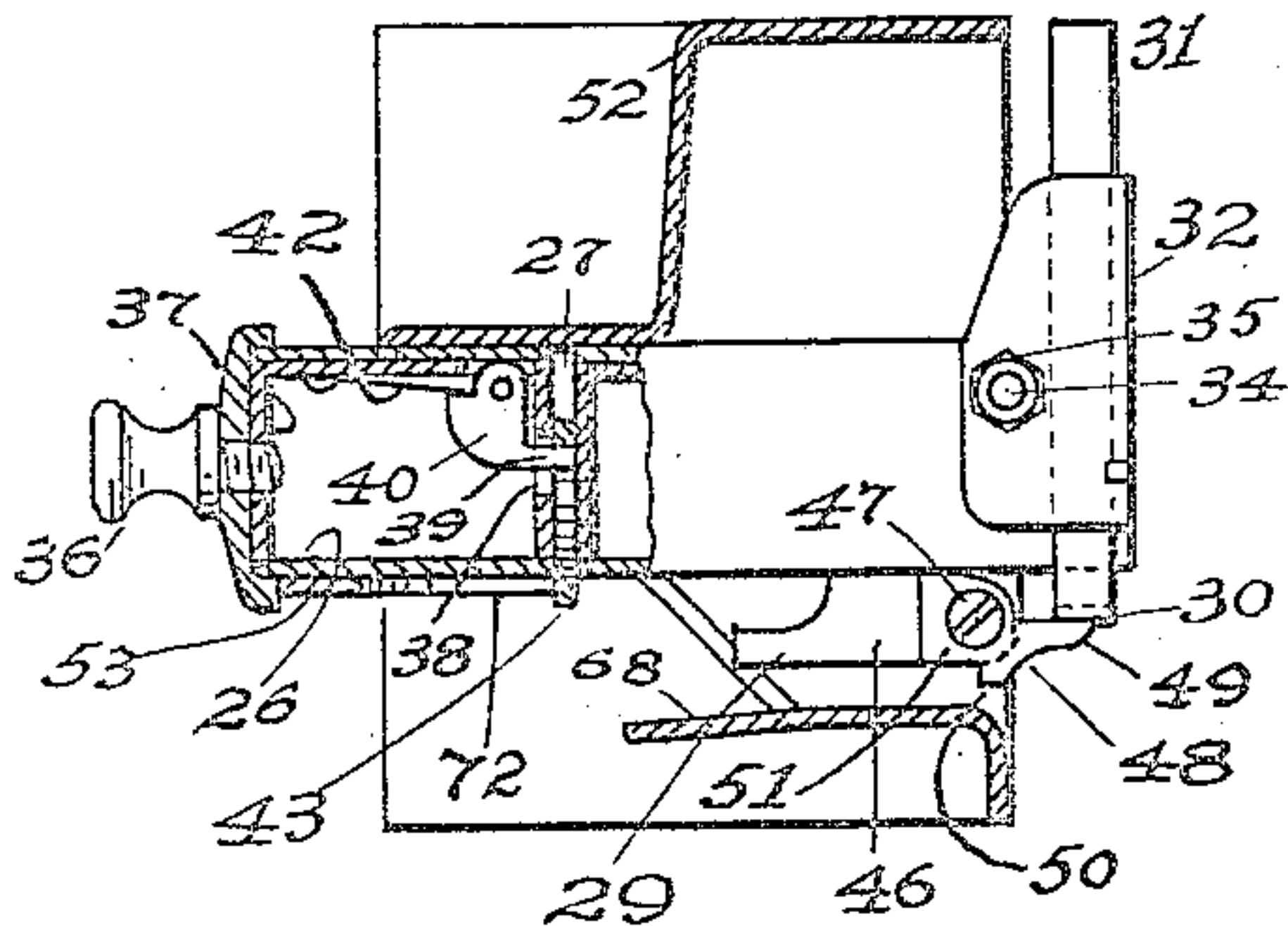
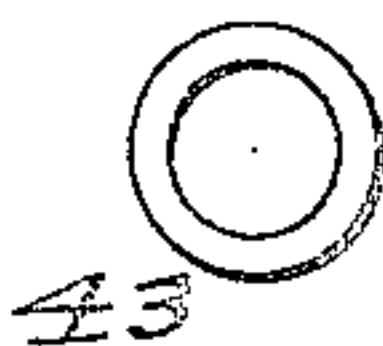
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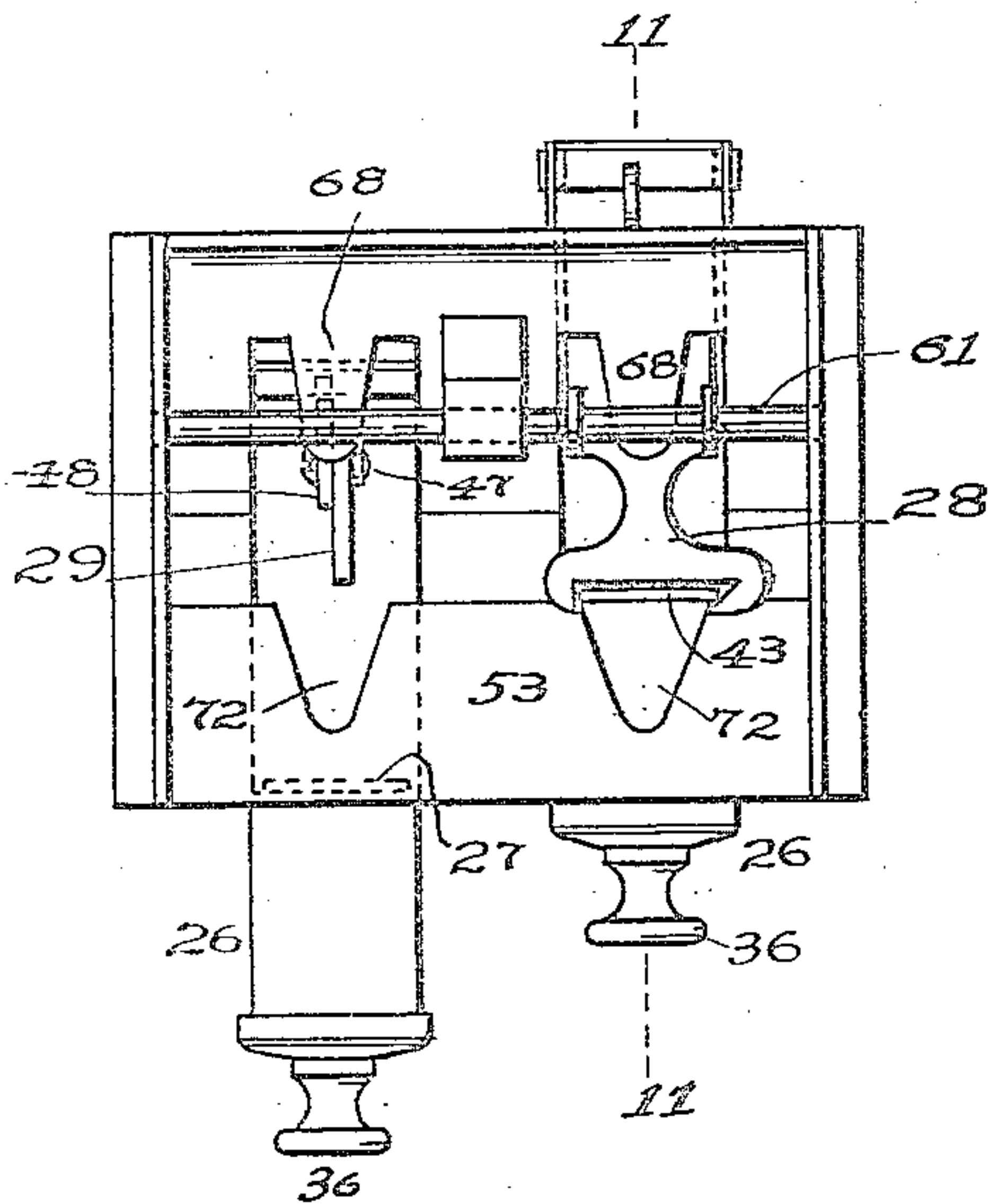
APPLICATION FILED JAN. 12, 1907.

6 SHEETS--SHEET 6.

Fig. 11.



*Fig. 13.*



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# UNITED STATES PATENT OFFICE.

ELIJAH F. SPAULDING, OF NEW YORK, N. Y.

COIN-CONTROLLED VENDING-MACHINE.

No. 875,128.

Specification of Letters Patent.

Patented Dec. 31, 1907.

Application filed January 12, 1907. Serial No. 351,951.

*To all whom it may concern:*

Be it known that I, ELIJAH F. SPAULDING, a citizen of the United States, and a resident of New York city, in the county of New York and State of New York, have invented certain new and useful Improvements in Coin-Controlled Vending-Machines, of which the following is a specification.

The invention relates to improvements in coin-controlled vending-machines, and it consists in the novel features, arrangements, and combinations of parts hereinafter described, and particularly pointed out in the claims.

The object of the invention is to provide an entirely efficient and reliable vending machine capable of ready manufacture and operation and adapted to be operated for ejecting goods only upon the introduction of the proper coin to the machine.

A further object of the invention is to provide for the return to the purchaser of a coin introduced into the machine at a time when there are no goods in the machine to be ejected therefrom.

The machine of my invention comprises vertical holders for the stacks of confections to be sold, a plunger or slide for each holder adapted to receive the coin and carry the same inwardly when the slide is manually pushed in that direction, a pivotally mounted coin-receiver into which the coins fall from the slide when the latter reaches its inner position and which receiver by the weight of the coin has its rear end tilted upwardly, a pivoted dog carried by the said slide and which lies inwardly beyond the said rear end of said tilted receiver when said slide is at its inner or rear position, and a vertically slidable goods-ejector carried by the inner end of the said slide and which has its upper end portions normally just below the plane of the lower piece of the confections in the holder and which is adapted to be moved upwardly in rear of the lower piece of confections by said dog when due to the forward or outward movement of the slide said dog meets and is temporarily obstructed and caused to turn upwardly by its contact with the tilted inner end of said receiver, said goods-ejector during said outward movement of the said slide pushing said lower piece of confection frontwardly from the holder so that when it is finally unsupported it may fall into convenient position to be picked up by the purchaser.

To purchase a piece of confection or the like a coin is placed in the protruding coin-slide and the latter is pushed inwardly and then drawn outwardly, the goods-ejector moving below the stack of confections during the inward movement of said slide and engaging the rear edge of the lower piece in said stack and pushing it frontwardly therefrom during the outward movement of said slide. During the outward movement of the coin slide a coin-ejector carried thereby passes against the coin held in the coin-receiver and pushes the same therefrom, whereupon said receiver returns to its normal position. Upon the slide reaching its outer position and the discharge of the piece of goods sold, the weight of the goods in the holder and a weight placed on them or the latter weight alone if the last piece has been sold, pressing downwardly upon the goods-ejector returns it to its lower position free of the lower end of the holder.

My machine also comprises means for the return to the purchaser of a coin introduced to the coin-slide at a time when the stack-holder is empty or when the goods in the holder do not descend to a position at which they may be ejected, means for arresting washers and iron or steel disks if the same should be introduced to the coin-slide, and means for discarding coins which may pass to the coin-receiver should they be deficient in diameter.

The invention will be fully understood from the detailed description hereinafter presented, reference being had to the accompanying drawings, in which:

Figure 1 is a front view, partly broken away, of a machine constructed in accordance with my invention, the machine illustrated having two stack-holders and two coin receiving and operating-slides; Fig. 2 is a central vertical section of the same on the dotted line 2—2 of Fig. 1, the coin-receiving and operating-slide being shown in its normal outer position; Fig. 3 is a like view of the same, with the coin-receiving and operating-slide shown at its extreme inner position; Fig. 4 is a detached front view of the weight which rests upon the upper end of the stack of confections; Fig. 5 is a rear elevation, partly broken away, of the machine, the door (which is at the back of the machine) being removed and one goods-ejector being shown in its upper position, while the other or right hand goods-ejector is shown in its normal lower position; Fig. 6 is an enlarged de-



5 attached top view of one of the coin-receiving and operating-slides; Fig. 7 is a longitudinal section of the same on the dotted line 7—7 of Fig. 6; Fig. 8 is a rear end view of the same; Fig. 9 is a detached top view of the tiltable coin-receiver to which the coin passes from the operating-slide; Fig. 10 is an edge view of the same; Fig. 11 is a vertical section through a portion of the machine and shows one of the operating-slides at its inner position with a washer arrested in the coin-slot thereof; Fig. 12 is a detached face view of the washer indicated in Fig. 11, and Fig. 13 is a detached bottom view of a portion of the interior mechanism of the machine, one of the operating-slides being shown in its outer position and the other in its inner position and the dotted line 11—11 denoting the section on which Fig. 11 is taken.

20 In the drawings, 20 designates the exterior casing or cabinet having a door 21 at its back and a glass panel 22 in its front, 23 the vertical holders for the stack of confections 24, 25 weights on said stacks, 26 the operating-slides or plungers having vertical slots 27 to receive the coins, 28 the tiltable coin-receivers to which the coins pass from said slides, 29 the coin-ejector finger carried by each of said slides, and 30 the goods-ejectors, whose upper ends constitute fingers 31 and which, as shown in Figs. 7 and 8, are each formed from a strip of spring-metal bent to form two vertical sides and a bottom, the latter extending transversely under the inner end of the slide 26 and said vertical sides extending along and being adapted to slide on the sides of said slide.

40 The goods ejectors 30 are confined against the coin-slides 26 by means of plates 32 (Figs. 6, 7 and 8) which form parts of and close the rear ends of the body of the slides 26 and lap upon the sides thereof, said plates 32 also extending above the main horizontal plane of the slides 26 and thereby furnishing surfaces against which the upper portions of the side members of the goods-ejectors may slide. The rear ends of the plates 32 are recessed, as at 33, for purposes to be hereinafter described, and said plates 32 are fastened to the body of the slides 26 by means of bolts 34 and nuts 35 (Fig. 6). The two vertical members of the goods-ejectors 30 have a light spring tension in a direction from each other and against the facing sides of the plates 32, whereby sufficient friction is created between the goods-ejectors and the walls retaining them to enable the ejectors to remain in any position to which they may be pushed, this spring tension or friction enabling the ejectors to normally remain in their upper position when they have been pushed upwardly or in its lower position when they have been pushed downwardly.

65 The slides 26 are duplicates of each other and each slide is in the form of an elongated

tube or shell, preferably square in cross-section, having a vertical transverse coin-slot 27 formed through it. The outer end of each slide 26 is provided with a suitable knob or handle 36, and within the outer portion of each slide is mounted a frame 37 (Fig. 7) which consists of a plate bent to form a top and two ends closely fitting within the slide. The front end of the frame 37 forms one wall of the coin slot 27 and in said end is formed an aperture 38 through which a finger 39 of a pivoted plate 40 projects, said finger normally extending across the coin-slot and lightly bearing against the rear wall thereof, as shown in Fig. 7. The normal position of the finger 39 is that shown in Fig. 7, and said finger is yieldingly maintained in such position by a weighted arm 41 connected with the plate 40, as shown in Fig. 7, or by a spring 42 (Fig. 11) whose tension is exerted against the plate 40 to throw the finger 39 across the coin-slot. The weighted arm 41 and spring 42 are equivalent devices for yieldingly maintaining the finger 39 within the coin-slot 27. The finger 39 will swing inwardly from the coin slot under the pressure of a coin pressed into said slot, and said finger performs no duty other than to arrest washers or light disks which may be passed into the coin slot. Should a washer (Fig. 12) be passed into the coin slot 27, the lower edge of the washer would cause the finger 39 to swing forwardly from said slot but since said finger has a normal tension toward said slot, it will upon the hole in the washer reaching it, spring into the same and cause the washer to hang suspended from its end, as indicated in Fig. 11 wherein I number the washer 43. If a card-board disk or a disk of light material is pressed into the coin-slot 27 the finger 39 will be caused to recede by it but will maintain a pressure against its face sufficient to hold it within the slot, thereby preventing it from passing to the coin-receiver 28. The purposes of the finger 29 are therefore to arrest any washers or disks having holes in them which may be passed into the coin slot and also bind any paper or other very light disks which may be passed into said slot against the rear wall of the same.

Within each slide 26 is also provided a magnet 44 (Figs. 6 and 7) whose poles constitute a portion of the rear wall of the coin-slot 27, as clearly indicated in Fig. 6. The purpose of the magnet 44 is to arrest iron or steel disks which may be introduced into the coin slot 27. Within the rear portion of the slide 26 is secured a plate 45 which extends over the top of the magnet 44 and has a downwardly-turned front end which is slotted to straddle the poles of the magnet and which with the ends of the arms of the magnet constitute the rear wall of the slot 27.

Each slide 26 is provided with a forwardly extending coin ejector 29, which is in the



form of a finger integral with a plate 46 rigidly secured to the lower rear portion of the slide. Upon one side of the plate 46 of each slide 26 is pivotally mounted, by means of a screw 47, a tiltable plate 48 which has a lifting toe 49, a shoulder 50 and a forwardly projecting heel portion 51 (Fig. 7). The toe 49 of the plate 48 is always below the goods-ejector 30 and is utilized during the outward movement of the slide 26 to elevate said goods-ejector so that the upper ends of the fingers 31 thereof may pass upwardly in rear of the lower piece of confection in the stack-holder 23. The operation of the plate 48 will be understood from the description hereinafter given in connection with the operation and construction of the coin-receiver 28 with which said plate coöperates.

The slides 26 are mounted within a metal frame plate 52 which forms a portion of the front of the cabinet 20, and said slides rest upon a plate or shelf 53 which keeps the lower end of the coin-slots 27 closed during the inward movement of the slides 26 until said slots attain a position where it is declared that the coin shall fall therefrom and enter the coin receivers 28. In Fig. 2 I show the coin-slot 27 in its normal outer position and closed at its lower end by the plate 53, and in Fig. 3 the slide 26 is shown as having reached its inner position and carried the coin-slot 27 inwardly beyond the plate 53, the coin when the slot 27 is in such position being left unsupported and therefore permitted to fall downwardly into the coin receiver 28. In Fig. 3 I illustrate a coin, numbered 54, in the receiver 28. The slide 26 normally stands in the position shown in Fig. 2 but it may be pulled to a slight extent farther outwardly so that a washer, paper disk or coin remaining within the slide may be pushed downwardly or descend from the coin-slot 27 at the outside of the machine. Each slide is connected at its rear end with coiled springs 55 whose front ends are fastened to the stationary front plate or frame 52 and which exert their tension to move the slides to their outer position. Within the casing of the machine I secure to the plate 52 vertical spring bars 56 (Figs. 2 and 3) which extend downwardly into the path of the ends of the bolts 34 and while permitting the slides to be pulled outwardly beyond their normal position shown in Fig. 2, operate to return said slides, when the pressure of the hand is removed from them, back to their normal position with the lower end of the coin-slot 27 closed by the plate 53. The springs 56 act in opposition to the springs 55 in maintaining the slides 26 in their normal position shown in Fig. 2.

The holders 23 for the confections are of usual construction and therefore require no special description, said holders being above the path of the rear ends of the slides 26 and

being open at the front and at opposite sides of their lower ends so that the goods-ejectors may, during the outer movements of the slides, force the pieces of confection, one after another, from the holders in the manner I have indicated in Fig. 2, which shows one piece as having been discharged from the holder and falling into a convenient position to be taken by the purchaser. Upon the stacks of confections are placed weights 25 which I form with grooves 57 at their lower ends to receive the upper ends of pivoted arms 58 when the last piece of confection has been discharged from the holder and the weight 25 has reached the upper end of the plate 52. Fig. 3 illustrates by dotted lines, the position the arm 58 takes when it does turn upwardly at its front end, which is only when the weight 25 has descended directly upon the upper horizontal end of the plate 52 or when from any reason the goods in the holder 23 become stuck therein and fail to descend, thus leaving a space above the upper end of the plate 52 into which the front end of the arm 58 may pass.

Each rocking arm 58 is pivoted to an ear 59 rigid with and extending downwardly from the horizontal upper portion of the plate 52, as shown in Fig. 5, and each rocking arm 58 has pivoted to its rear end a depending stop-plate 60 which merely hangs loosely downwardly and performs no duty whatever while the confections 24 are upon the upper end of the plate 52 and hold the rocking arm 58 in its normal horizontal position represented in Fig. 2. The plate 60 has its rear edge against the inner face of the back door 21, and during the proper operation of the machine and while the pressure of the confections is upon the rocking arm 58, the said plate 60 does not interfere with the full inward movement of the slides 26 for the reason that the plates 32 on the rear ends of the slides are formed with the recesses 33, hereinbefore referred to, which, when the slides are at their full inward position, straddle said plates 60 without touching them. When, however, the confections have all been sold from a holder 23, the rocking-arm 58 is permitted by the recess 57 in the weight 25 to turn upwardly at its front end into the position shown by dotted lines in Fig. 3, and the plate 60 lowers to the position indicated in Fig. 3 by dotted lines and then stands in the path of a solid portion of the plate 32 below the aforesaid recess 33, in which position said plate will prevent the slide or plunger 26 from having a full inward movement, the dimensions of the plate 60 being such that when it is in its lower position shown by dotted lines in Fig. 3, it will arrest the sliding plunger 26 before the coin slot 27 thereof has passed beyond the rear edge of the plate 53, whereby the coin placed in said slot by a would-be purchaser is prevented from falling



down into the machine at a time when there are no goods present to be sold. The stop plate 60 is therefore utilized to prevent the machine from receiving a coin when the article to be purchased is not present for delivery.

A coin placed in the slot 27 of the slide or plunger 26 when not permitted by the stop plate 60 to reach a position enabling it to fall into the machine, remains in said slot and is carried outwardly with the outward movement of the slide and will fall from said slot outside of the machine when the plunger 26 reaches its full outer position and before the slight receding action of said slide takes place under the influence of the springs 56, whereby the slide is moved inwardly to a sufficient extent to locate the coin slot above the plate 53 as shown in Fig. 2. When the slide or plunger 26 is pulled outwardly to the limit of its movement the coin slot 27 passes outwardly beyond the supporting plate 53 to a sufficient extent to enable the coin to fall therefrom. I regard it as a very desirable feature that the machine will return to the purchaser a coin placed in the coin slot at a time when goods cannot be delivered therefor.

The rocking arm 58 and stop plate 60 also perform an important duty when, for any cause, the stack of confections fails to descend through the holder 23, which sometimes happens with machines in use. In the present instance should the stack of confections fail to descend, a hollow space would be left above the upper end of the frame-plate 52, and this space would permit the weight of the plate 60 to turn the front end of the rocking arm 58 upwardly to the position indicated by dotted lines in Fig. 3 and thus the stop plate 60 would again attain its lower position and prevent the sliding plunger 26 from carrying a coin inwardly beyond the supporting plate 53.

Below the inner portions of the slides or plungers 26 are pivotally mounted, upon a rod 61, the coin-receivers 28, which receive the coins as they fall from the coin slots 27 of the slides 26 when the latter are at their inner position. The details of the coin-receivers 28 are illustrated in Figs. 9 and 10, and said receivers are each formed of a piece of sheet metal having downwardly extending ears 62 through which the pivot rod 61 passes. Each coin receiver 28 is formed with a rearwardly extending body portion 63 and a front receiving portion comprising a hook member 64 and a straight arm member 65 whose facing edges define a space into which the coins fall and are caught in the manner I have indicated in Fig. 3 wherein 54 denotes a coin held within a coin receiver. The middle portion of the front end of the coin receiver is formed with a downwardly extending lip 66 against which the lower por-

tion of the coin 54 may rest, and upon the upper side of the front end of the coin-receiver 28 I secure a strip of metal having upwardly bent ends or fingers 67 against which the upper portion of the coin 54 may rest while held by the hook 64 and arm 65. The fingers 67 are separated from each other so that the ejector 29 may, upon the outward movement of the slide 26, move against and push the coin from the receiver, allowing the coin 54 to fall downwardly into the chamber within the cabinet, as represented in Fig. 2. The hook 64 and arm 65 are just sufficiently separated from each other to hold a proper coin resting against the fingers 67 and lip 66 without letting the coin slip downwardly between them, but a coin deficient in diameter is permitted to slide down between the hook 64 and arm 65, without therefore overbalancing the rear end of the coin-receiver. If a coin or disk deficient in weight should be fed to the coin-receiver 28 it will not overbalance the rear end of said receiver.

I provide for the upwardly tilting of the rear end of the coin-receiver 28 by the weight of a proper coin falling from the coin-slot 27 so that said end may cooperate with the slide 26 and pivoted plate 48 in positioning the goods-ejector 30 so that said ejector may, upon the outer movement of said slide, eject the goods sold.

When a proper coin is placed into the coin-slot 27 and the slide is pushed inwardly, it will, after passing inwardly beyond the plate or shelf 53 fall into the coin-receiver 28 (Fig. 3) and tilt the rear end of said receiver upwardly in front of the shoulder 50 on the pivoted plate 48, and thereupon upon the outward movement of the slide, said end of said receiver acts as an obstruction to the plate 48 and turns the rear end or toe 49 thereof upwardly against the goods-ejector 30 and operates to force said ejector upwardly, as shown at the left side of Fig. 5, whereby the upper ends of the side members of the ejector are caused to pass upwardly in rear of the lower piece of confection 24. Upon the continued outward movement of the slide 26, the then positioned ejector will force the lower piece of confection from the stack, as shown in Fig. 2, and upon the discharge of said piece the stack of confections will settle down in the holder 23 and upon the upper ends of the side members of the then elevated goods-ejector 30 and force said ejector to its normal lower position, as indicated in Fig. 2, thus leaving the slide 26 and ejector 28 in condition and position to be again moved inwardly by the next purchaser. When the slide 26 starts outwardly and the toe 49 turns upwardly against the goods-ejector 30, the heel portion 51 (Fig. 7) of the tilting plate 48, turns downwardly against the rear portion of the coin receiver 28 and tilts said portion downwardly from the



shoulder 50 so that the receiver may not obstruct the outward movement of the slide 26 after the goods-ejector has been elevated. The frame-plate 52 is formed with tongues 5 68 which incline frontwardly and downwardly (Figs. 2 and 3) to enable the proper tilting of the coin-receivers 28 and support the front portions of said receivers when the latter are tilted and when the pressure of the shoulders 10 50 of the plates 48 is exerted against their rear ends.

In the present instance the rear ends of the coin-receivers 28 are recessed, as at 69 (Fig. 8), and these recesses when the receivers are 15 tilted, pass upwardly around the shoulders 50 on the plates 48 and their inner end edges, which form a part of the rear edges of the receivers, are engaged by the said shoulders on the forward movement of the slides 26. The 20 receivers 28 are recessed only to permit of the use of a little extra metal (at each side of the recesses) in the rear portions of the receivers so as to obtain the proper balancing effect in the receivers with the use of the thin 25 sheet metal shown.

The frame-plate 52, which forms a part of the front casing of the machine, may be secured in position by means of a bolt 70 passing through a bar 71 connected with said 30 plate, said bolt being introduced from the rear and entering a rigid front portion of the frame of the machine.

The operation of the machine will be largely understood from the description hereinbefore presented. The normal condition of the machine when ready for operation is shown in Fig. 2. A purchaser will introduce the proper coin into the coin-slot 27 of a slide 26 and push said slide inwardly and then pull 40 it outwardly to discharge the goods. The coin placed in the coin-slot 27 will remain therein until said slot is carried beyond the inner edge of the supporting plate 53, whereupon the coin will fall into the coin-receiver 45 28 and tilt the rear end of said receiver upwardly in front of the shoulder 50 on the plate 48. Upon the outward movement of the slide 26, the plate 48 will be turned on its pivot and the toe 49 thereof will force the 50 goods-ejector 30 upwardly into its operative position, and thereupon during the continued outward movement of the slide the ejector 30 will effect the discharge of the piece of goods sold (Fig. 2) and the coin-ejector 29 will dislodge the coin from the receiver 28. Upon the discharge of the piece sold, the stack will settle upon the upper ends of the side members of the ejector and force the latter to its lower normal position, leaving the machine in condition for a further operation. When the goods in a holder 23 have been ejected the weight 25 will descend upon and press the ejector 30 to its lower position and at the same time permit the rock- 60 ing-arm 58 to turn upwardly at its front end

and the stop 60 to descend, said stop under such condition preventing the slide 26 from having a full inward movement. Should a coin be introduced to the coin-slot 27 and the slide 26 pushed inwardly when the stop 70 60 is in its lower position, the coin will not be carried inwardly beyond the plate 53, and hence on the full outward movement of said slide (which carries the coin slot beyond the front edge of the plate 53) the coin will drop 75 from said slot at the outside of the machine and be restored to the purchaser. This restoration of the coin to the purchaser will also take place if the goods in the holder 23 should not descend therein, as hereinbefore 80 explained.

If a steel or iron disk or the like should be placed in the coin-slot 27 it will be caught by the magnet 44 and held within said slot, the coin-receiver 28 not therefore being tilted by 85 it to effect the positioning of the goods-ejector. A disk caught by the magnet 44 may be pushed downwardly from the coin-slot 27 when the slide 26 is held at its full outward position with said slot outwardly beyond the 90 front edge of the plate 53.

A washer placed in the coin-slot 27 will be caught by the finger 39 as hereinbefore explained, and it likewise may be pushed downwardly from said slot when the slide 26 is at 95 its full outward position. Should a washer having a reasonably large hole in it be placed in the coin slot and not held up by the magnet 44 on the inward movement of the slide 26 carrying said slot beyond the rear edge of 100 the plate 53, the lower edge of said washer will descend below said edge of said plate, as indicated in Fig. 11, and have to be moved upwardly again to permit said slide to perform its outward movement. To effect the 105 upward movement of the washer within the slot 27 under the conditions just stated I form V-shaped recesses 72 in the plate 53 (Figs. 11 and 13), so that on the outward movement of the slide the frontwardly converging edges of said recesses may engage 110 the downwardly protruding portion of the washer at its opposite edges and gradually move the same upwardly so that it may ride frontwardly upon the plate 53 and finally 115 pass beyond the front edge of said plate.

A light disk placed in the coin-slot 27 and not of a character to be caught by the magnet 44, will be held by the pressure of the point of the finger 39 against its face and 120 thus kept within said slot, and said disk on the full outward movement of the plunger may be pressed downwardly from the coin-slot and discharged at the outside of the machine. 125

A coin of the proper character fed to the coin-slot 27 will not remain therein when the slide carries said slot beyond the inner or rear edge of the plate 53 but will when left unsupported by said plate fall into the coin- 130



receiver 28 and tilt the same, as hereinbefore explained.

What I claim as my invention and desire to secure by Letters-Patent, is:—

1. In a coin-controlled vending machine, a holder for the stack of confections to be sold, an operating slide having a vertical coin-slot, a support adapted to maintain the lower end of said slot closed while the slide is at its normal position and during its inward movement to a definite point at which the coin will fall from the slot, a goods-ejector carried by said slide, means to be actuated by said slide for moving said ejector to position behind the lower piece in the stack while the slide is at an inner position, and means operable by the coin after it leaves said slot to render operable the ejector actuating means carried by the slide, said ejector being adapted to be moved to its inoperative position by the weight of the contents of the holder upon it after said lower piece has been discharged; substantially as set forth.

2. In a coin-controlled vending machine, a holder for the stack of confections to be sold, an operating slide having a vertical coin-slot, a support adapted to maintain the lower end of said slot closed while the slide is at its normal position and during its inward movement to a definite point at which the coin will fall from the slot, a goods-ejector carried by said slide, means to be actuated by said slide for moving said ejector to position behind the lower piece in the stack while the slide is at an inner position, and means operable by the coin after it leaves said slot to render operable the ejector actuating means carried by the slide, said ejector being adapted to be moved to its inoperative position by the weight of the contents of the holder upon it after said lower piece has been discharged, and comprising two connected side members in sufficiently firm frictional engagement with the supporting surfaces they engage to enable the ejector to normally remain in the position to which it may be moved; substantially as set forth.

3. In a coin-controlled vending machine, a holder for the stack of confections to be sold, an operating slide having a vertical coin-slot, a support adapted to maintain the lower end of said slot closed while the slide is at its normal position and during its inward movement to a definite point at which the coin will fall from the slot, a goods-ejector carried by said slide, means to be actuated by said slide for moving said ejector to position behind the lower piece in the stack while the slide is at an inner position, and means operable by the coin after it leaves said slot to render operable the ejector actuating means carried by the slide, said ejector being adapted to be moved to its inoperative position by the weight of the contents of the holder upon

it after said lower piece has been discharged, and consisting of a spring bar bent to form two side members straddling the slide and a lower connecting member, said side members having a tension from each other and against the surfaces retaining them; substantially as set forth.

4. In a coin-controlled vending machine, a holder for the stack of confections to be sold, an operating slide having a vertical coin-slot, a support adapted to maintain the lower end of said slot closed while the slide is at its normal position and during its inward movement to a definite point at which the coin will fall from the slot, a goods-ejector carried by said slide, means to be actuated by said slide for moving said ejector to position behind the lower piece in the stack while the slide is at an inner position, a tiltable coin-receiver into which the coin falls from said slot and the rear end of which when tilted upwardly renders operable the goods-ejector actuating means carried by the slide, and a coin-ejector carried by the slide for dislodging the coin from said receiver on the outward movement of the slide; substantially as set forth.

5. In a coin-controlled vending machine, a holder for the stack of confections to be sold, an operating slide having a vertical coin-slot, a support adapted to maintain the lower end of said slot closed while the slide is at its normal position and during its inward movement to a definite point at which the coin will fall from the slot, a vertically movable goods ejector carried by said slide, a pivoted plate carried by the slide and having a downwardly extending shoulder and a lifting-toe in position to engage said goods-ejector, and a tiltable coin-receiver into which the coin falls from said slot to tilt the rear end of said receiver upwardly to a position in front of said shoulder, whereby upon the outward movement of said slide said lifting toe is caused to elevate the goods ejector to its operative position; substantially as set forth.

6. In a coin-controlled vending machine, a holder for the goods to be sold, an operating slide having a coin-receiving slot, and a support for the coin while the slide is in its normal outer position and during its inward movement until the coin reaches a definite point at which it is to fall from the slide, combined with a goods-ejector carried by the slide, means operable from the slide for positioning said ejector, and a movable stop for preventing said slide from making a sufficient inward movement to discharge the coin when the said holder is empty or the goods have not descended therein, said stop being adapted to be held in an inoperative position by the weight of the goods in the lower end of the holder; substantially as set forth.



7. In a coin-controlled vending machine, a holder for the goods to be sold, an operating slide having a coin-receiving slot, and a support for the coin while the slide is in its normal outer position and during its inward movement until the coin reaches a definite point at which it is to fall from the slide, combined with a goods-ejector carried by the slide, means operable from the slide for positioning said ejector, and a movable stop for preventing said slide from making a sufficient inward movement to discharge the coin when the said holder is empty or the goods have not descended therein, said stop being adapted to be held in an inoperative position by the weight of the goods in the lower end of the holder, and said slide being adapted to be moved outwardly beyond its normal outer position so that the coin may be discharged at the outer side of the machine; substantially as set forth.

8. In a coin-controlled vending machine, a holder for the goods to be sold, an operating slide having a coin-receiving slot, and a support for the coin while the slide is in its normal outer position and during its inward movement until the coin reaches a definite point at which it is to fall from the slide, combined with a goods-ejector carried by the slide, means operable from the slide for positioning said ejector, and a stop-mechanism for preventing said slide from making a sufficient inward movement to discharge the coin when said holder is empty or the goods fail to descend therein, said stop-mechanism comprising a pivoted arm and a stop-plate suspended from one end thereof in rear of said slide, the other end of said arm being below said holder and adapted to be held depressed, with said plate elevated to an inoperative position, by the weight of the goods in said holder; substantially as set forth.

9. In a coin-controlled vending machine, a holder for the goods to be sold, an operating slide having a coin-receiving slot, and a support for the coin while the slide is in its normal outer position and during its inward movement until the coin reaches a definite point at which it is to fall from the slide, said slide when moved to its extreme outer limit being adapted to carry its coin-slot forwardly beyond the said coin-support, combined with yielding means for automatically restoring said slide after it has been released by the operator to its normal outer position, a goods-ejector carried by the slide, and means for positioning said ejector; substantially as set forth.

10. In a coin-controlled vending machine, a holder for the goods to be sold, an operating slide having a coin-receiving slot, and a support for the coin while the slide is in its normal outer position and during its inward movement until the coin reaches a definite point at which it is to fall from the slide, said

slide when moved to its extreme outer limit being adapted to carry its coin-slot forwardly beyond the said coin-support, combined with a spring connected with said slide for normally pulling it outwardly, an opposing spring for restoring said slide after it has been released by the operator to its normal outer position, a goods-ejector carried by the slide, and means for positioning said ejector; substantially as set forth.

11. In a coin-controlled vending machine, an operating slide, a holder for the stack of goods to be sold, a goods-ejector carried by said slide and vertically movable thereon, and means for positioning said ejector upon the reception of the proper coin by the operative parts of the machine, said ejector being adapted to be depressed to its normal inoperative position by the weight of the goods above it when the lower piece thereof has been pushed away by said ejector; substantially as set forth.

12. In a coin-controlled vending machine, an operating slide, a holder for the stack of goods to be sold, a goods-ejector carried by said slide and vertically movable thereon and adapted to normally remain in any position given to it, and means for positioning said ejector upon the reception of the proper coin by the operative parts of the machine, said ejector being adapted to be depressed to its normal inoperative position by the weight of the goods above it when the lower piece thereof has been pushed away by said ejector; substantially as set forth.

13. In a coin-controlled vending machine, a holder for the goods to be sold, an operating slide having a coin-receiving slot, and a support for the coin while the slide is in its normal outer position and during its inward movement until the coin reaches a definite point at which it is to fall from the slide, said slide when moved to its extreme outer limit being adapted to carry its coin-slot forwardly beyond the said coin-support, combined with coiled springs connected with the opposite sides of the rear end of said slide and to a front portion of the machine for normally pulling said slide outwardly, opposing bar-springs for engaging said slide at each side when it passes outwardly beyond its normal outer position for automatically restoring said slide after it has been released by the operator to its normal outer position, a goods-ejector carried by the slide, and means for positioning said ejector; substantially as set forth.

14. In a coin-controlled vending machine, a holder for the goods to be sold, a reciprocating slide having a vertical transverse coin-receiving slot of sufficient dimensions to receive a coin on edge and hold the same inclosed during a predetermined inward movement of said slide, means for yieldingly retaining said slide in its normal outer re-



ceiving position, and a support for the coin while the slide is in its normal outer position and during its inward movement until the coin reaches a definite point at which it may fall from said slide, said support permitting said slide to be moved outwardly beyond its normal outer position and uncovering the lower end of said coin-slot when said slide is thus at its extreme outer position so that whatever may have been retained in said slot may then be discharged therefrom, and said slide having at one side of said slot a magnet; substantially as set forth.

15. In a coin-controlled vending machine, a holder for the goods to be sold, an operating slide having a coin-receiving slot, and a support for the coin while the slide is in its normal outer position and during its inward movement until the coin reaches a definite point at which it is to fall from the slide, said slide having within it a yielding finger normally crossing said slot, combined with a goods-ejector operable from said slide, and means for positioning said ejector; substantially as set forth.

16. In a coin-controlled vending machine, a holder for the goods to be sold, an operating slide having a coin-receiving slot, and a support for the coin while the slide is in its normal outer position and during its inward movement until the coin reaches a definite point at which it is to fall from the slide, said slide having pivoted within it a plate holding a finger yieldingly pressed through one vertical wall of and crossing said slot,

combined with a goods-ejector operable from said slide, and means for positioning said ejector; substantially as set forth.

17. In a coin-controlled vending machine, a holder for the goods to be sold, a reciprocal slide having a vertical transverse coin-receiving slot of sufficient dimensions to receive a coin on edge and hold the same inclosed during a predetermined inward movement of said slide, means for yieldingly retaining said slide in its normal outer receiving position, and a support for the coin while the slide is in its normal outer position and during its inward movement until the coin reaches a definite point at which it may fall from said slide, said support permitting said slide to be moved outwardly beyond its normal outer position and uncovering the lower end of said coin-slot when said slide is thus at its extreme outer position so that whatever may have been retained in said slot may then be discharged therefrom, and said slide having at one side of said slot a magnet and at the other side of said slot a movable finger adapted to project into the same toward said magnet; substantially as set forth.

Signed at New York city, in the county of New York and State of New York, this 11th day of January A. D. 1907.

ELIJAH F. SPAULDING.

Witnesses:

CHAS. C. GILL,  
ARTHUR MARION.