

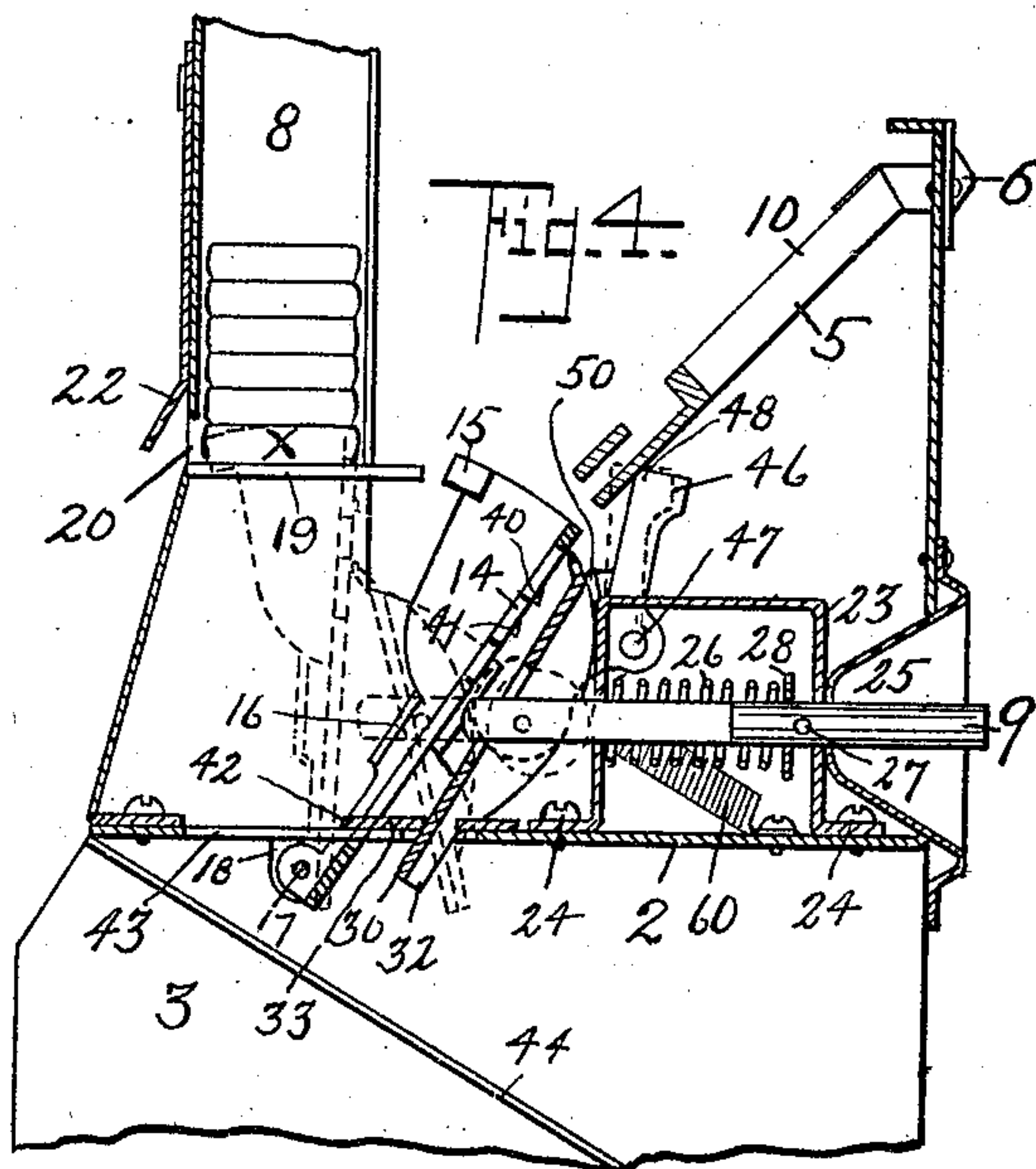
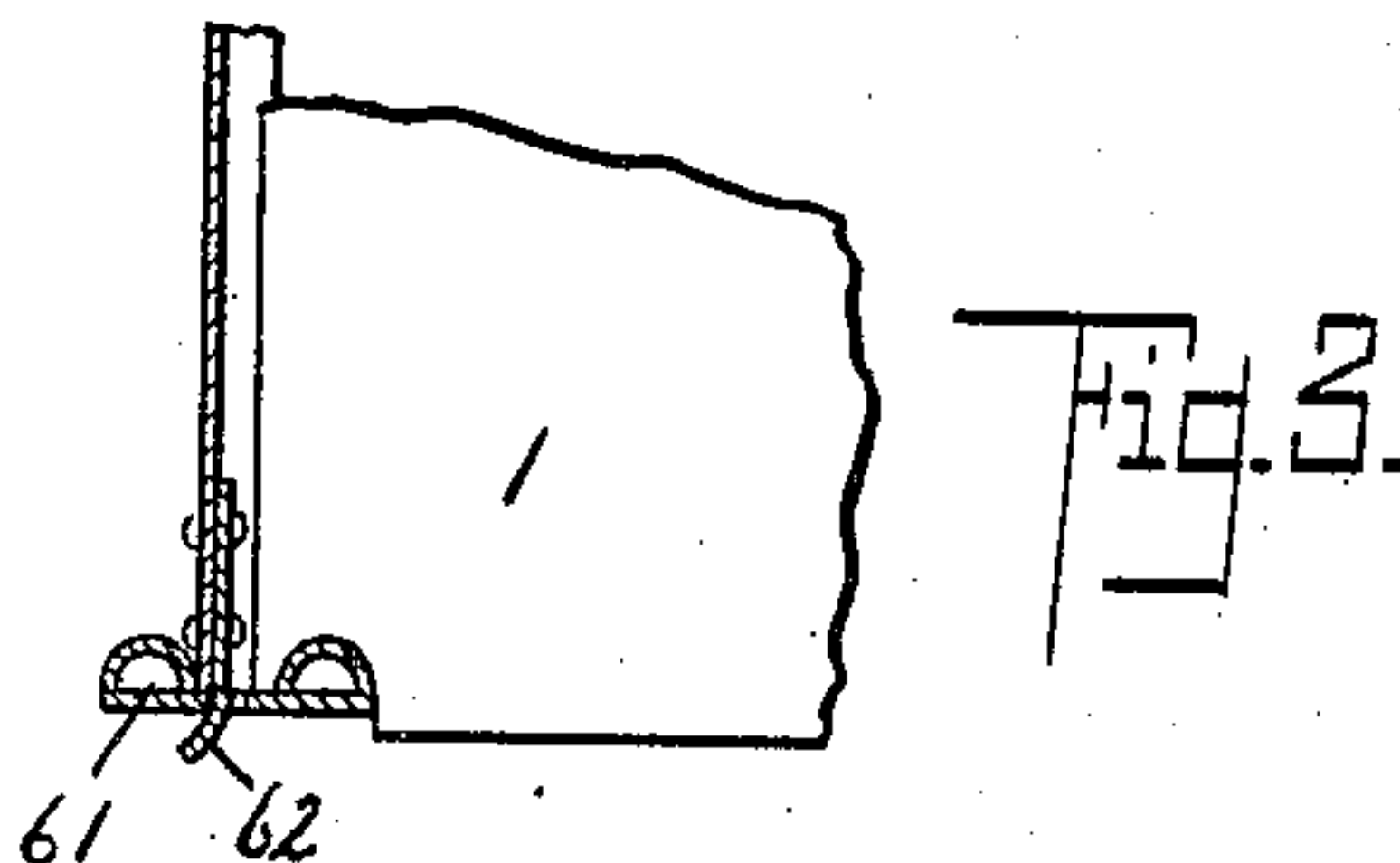
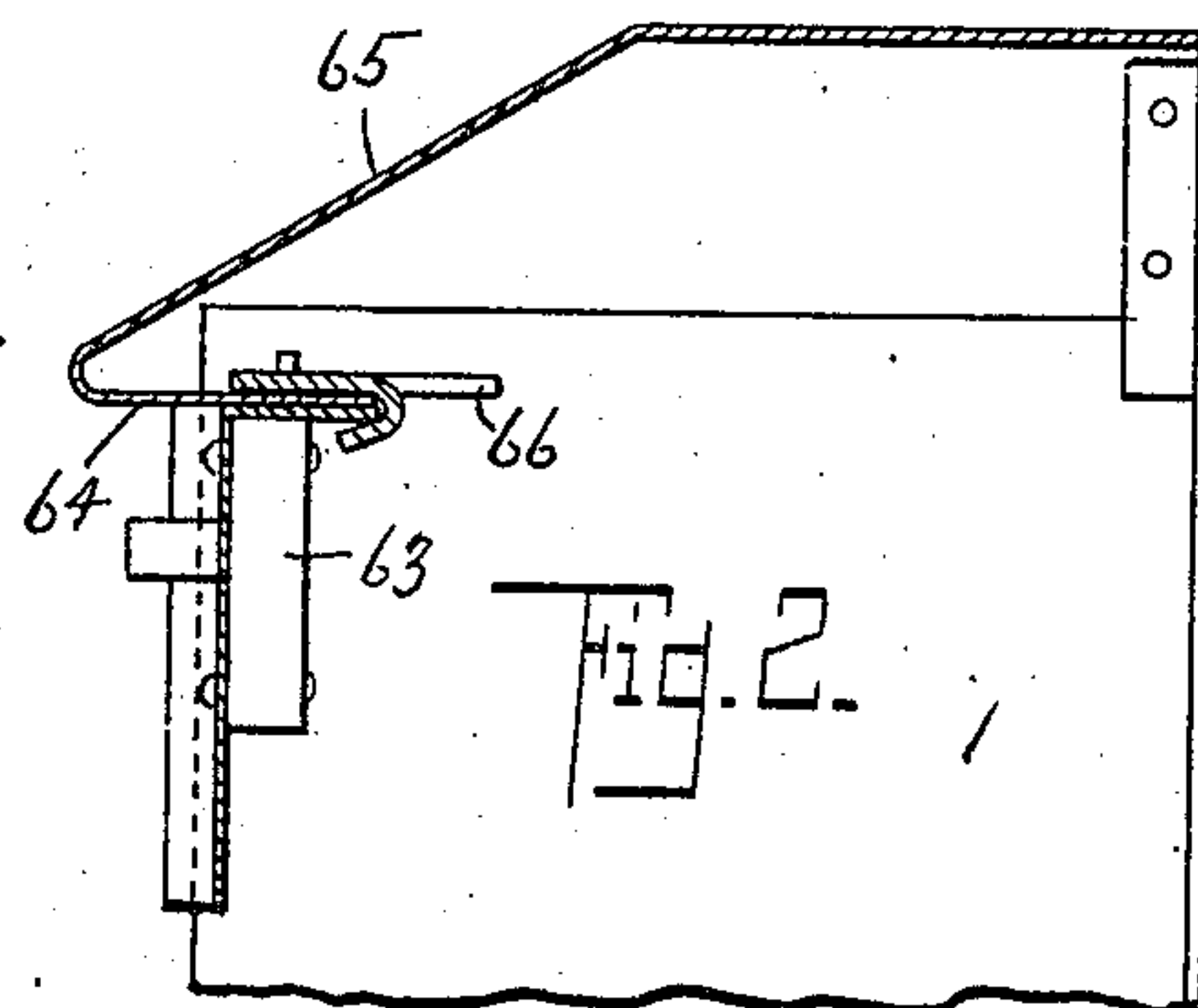
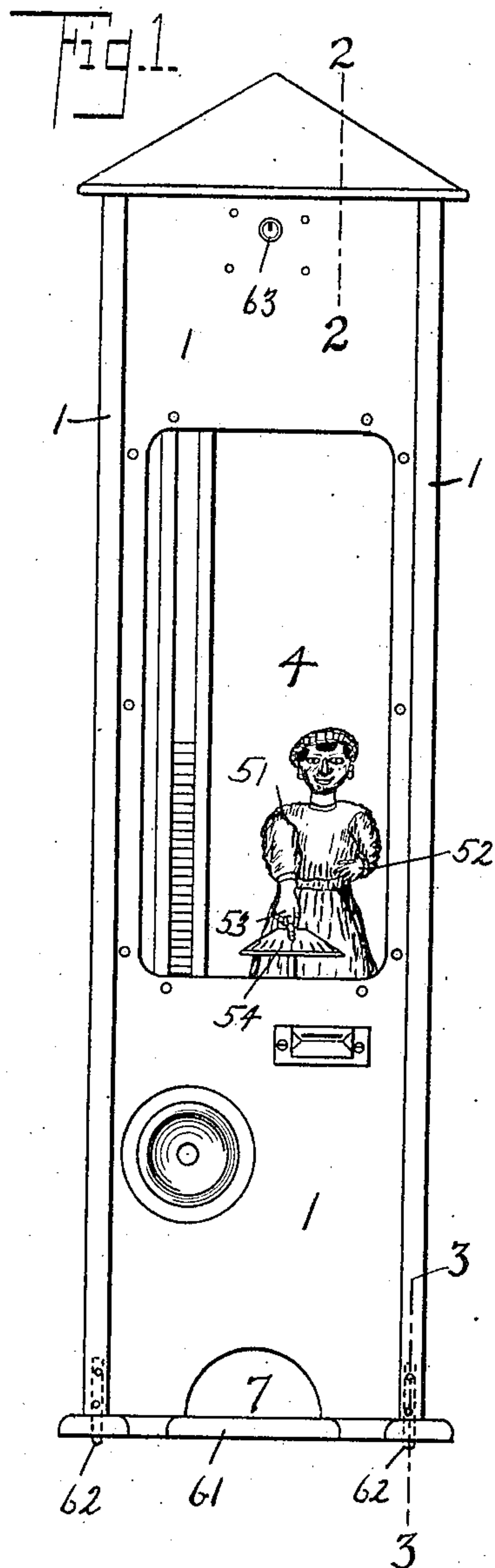
No. 844,248.

PATENTED FEB. 12, 1907.

C. V. CASE & W. MAYO.  
CONTROLLED VENDING APPARATUS.

APPLICATION FILED DEC. 15, 1903.

2 SHEETS—SHEET 1.



WITNESSES=  
A. R. Selden.  
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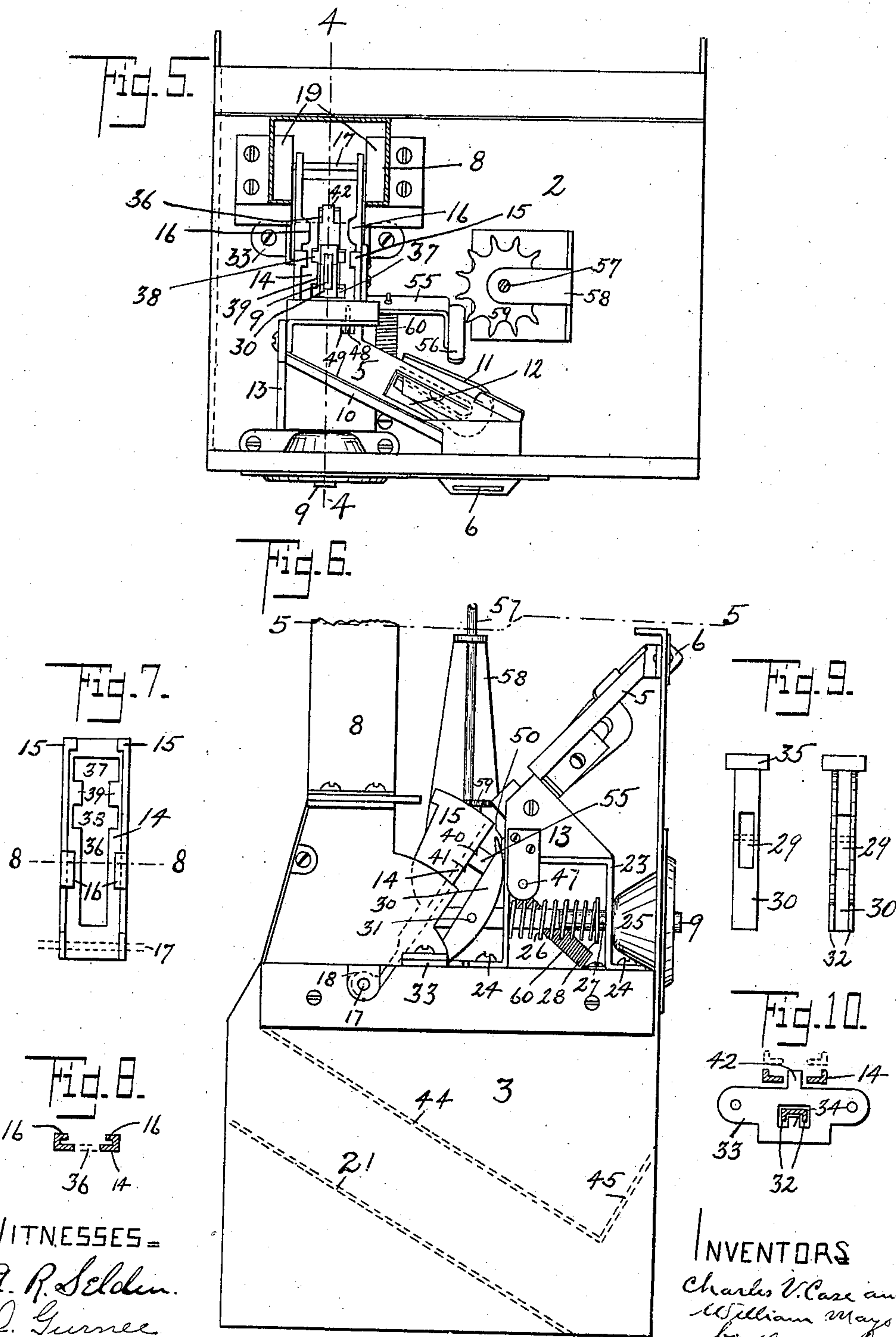
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Charles V. Case and  
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# UNITED STATES PATENT OFFICE.

CHARLES V. CASE AND WILLIAM MAYO, OF ROCHESTER, NEW YORK, ASSIGNORS TO CASE MANUFACTURING COMPANY, OF ROCHESTER, NEW YORK.

## CONTROLLED VENDING APPARATUS.

No. 844,248.

Specification of Letters Patent.

Patented Feb. 12, 1907.

Application filed December 15, 1903. Serial No. 185,303.

*To all whom it may concern:*

Be it known that CHARLES V. CASE and WILLIAM MAYO, citizens of the United States, and residents of Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Controlled Vending Apparatus, of which the following is a specification.

This invention relates to coin-controlled vending apparatus, and has for its object to produce a machine of few parts that is simple in construction.

In the drawings, Figure 1 represents a front view of a vending-machine fitted with the invention. Fig. 2 is a vertical section on the line 2 2 of Fig. 1. Fig. 3 is a vertical section on the line 3 3 of Fig. 1. Fig. 4 is a vertical section on the line 4 4 of Fig. 5. Fig. 5 is a horizontal section on the line 5 5 of Fig. 6. Fig. 6 is a side view from the left of Fig. 1, the outer casing being removed. Fig. 7 is a front view of one of the parts. Fig. 8 is a cross-section on the line 8 8 of Fig. 7. Fig. 9 shows front and rear views of another part, and Fig. 10 shows a top view of one of the plates employed as part of the device and also shows in section the position of certain other parts with relation thereto.

The machine is shown in the drawings with particular reference to vending packages of gum and similar small packages.

1 represents the outer casing, which is of suitable size, form, and construction to contain the working parts of the mechanism; 2, the platform supported therein upon legs 3 3, upon which the operating parts are in turn supported. The front panel of the frame is removably attached to the rest of the casing, as will hereinafter be described, in order to give access to the working parts, and has a glazed panel 4, through which part of the interior can be seen. A coin-plate 5 is provided with a coin-slot 6. The lower end of the front panel is cut away at 7, so that the packages may be withdrawn from the bottom of the casing when discharged into it from the magazine 8 by the means hereinafter described that are operated by the plunger 9. The coin-slot 6 is suitable in size to allow the passage of the particular coin for which the machine is adapted.

That part of the coin-plate 5 that lies within the casing has a flange 10, that is set at an angle to its width and that forms one

of the guideways for the movement of the coin. The other guideway for the other edge of the coin is formed by a magnet 11. Between the magnet and the flange 10 is an opening 12, which is somewhat narrower than the distance between the magnet and the flange and through which a disk or coin will fall in passing down the guideway unless it has sufficient diameter to bridge the opening. The flange 10 is continued by a plate 13, whose upper edge projects above the coin-plate sufficiently for that purpose and which is parallel to the width of the coin-plate and serves to guide the coin, so that it drops straight from the coin-plate into the operating-frame 14.

It will be readily understood that if an iron or steel slug is inserted into the device it will roll along one of the arms to the magnet 11 and which, being at an angle to the width of the coin-plate, as represented in Fig. 5, causes the slug which clings to the magnet to turn from the path of the coin-plate that leads to the operating-frame and to drop to one side of the coin-plate.

Inasmuch as the coin-plate 5 is tilted, a coin placed upon it through the slot 6 slides across its length and drops into the operating-frame 14. The operating-frame 14 is provided with arms 15 15 and has near its lower end inwardly-turned flanges 16 16 for the purpose of holding upon the plate the proper coin for operating the machine. The operating-frame 14 is pivoted upon a bar 17, that is supported in ears 18 18 beneath the magazine 8. The operating-frame 14 is adapted to go within the lower end of the magazine 8, the arms 15 15 of said operating-frame extending nearly to the back of said magazine when said frame is in the innermost position and slightly above the ledges 19 19 within the magazine, which support the packages of gum.

It is obvious that when the arms 15 15 of the operating-frame 14 are turned back into the magazine 8 they will engage the bottom package X in the magazine and will push such package out from under the pile of packages in the magazine and through the opening 20 in the back of the magazine, so that it will drop upon the slide 21 beneath the platform 2 to be conveyed thereby to the front of the casing, where it can be extracted through the opening 7. A guide 22 upon the back of the



magazine directs the course of the package X. As the package is thus extracted from the magazine the package next above it is placed ready for the next operation of the machine.

The following means are shown for operating the frame 14: A plunger 9 is slidably supported in the frame 23, the latter being attached to the platform 2 in a suitable manner, as by the screws 24. The outer end of the plunger projects through the front of the casing in order that it may be readily operated. Its outer end is represented as lying in a cup-shaped piece 25, inserted in the casing. The coiled spring 26 is placed between projections or pins 27 and a washer 28 on the plunger, and a stationary abutment, such as one end of the frame 23, whereby said spring 26, which is contracted when said plunger is forced inwardly, returns it to its normal position represented in the drawings, when it is released. The inner end of the plunger extends through an opening 29 in a lever 30, which is pivotally attached to it, as at 31. The lower end of the lever 30 is represented as having flanges 32 (see Fig. 10) and as extending through the platform 2 and a plate 33, secured thereon. The flanges 32 span a tongue 34 on the plate 33 that extends into the said slot in said plate 33. Thus a fulcrum is provided for the lever 30 at its lower end, upon which it slides, and the lever is tilted by its connection with the plunger 9. A head 35 is shown upon the upper end of the lever that is somewhat wider than the lever proper.

The operating-frame 14 is slotted, as represented by 36 in Fig. 7, so as to permit the main portion of the lever to pass through it, and at two points—namely, at 37 and at 38—the slot is widened, so that the head 35 of the lever can also pass through it. The relative location of these two widened portions of the slot is determined with particular reference to the consecutive operations of different parts of the machine, as will be presently explained.

A lip 42 upon the plate 33 projects into the slot 36 of the operating-frame 14 so as to lie beneath and support a coin in the operating-frame beneath the flanges 16 when the operating-frame is in its normal position. (Shown in full lines in Fig. 4.) When, however, a coin lies within the operating-frame and said frame is tilted forward by the plunger, as described above, said operating-frame will, when it has passed through a certain part of the arc through which it is adapted to rotate, withdraw from the lip 42, so that the coin is free to drop from said frame through the opening 43 in the platform 2 onto the chute 44, by which it is carried to the forward part of the casing against the end 45 of the chute. The lip 42 projects into the slot 36 only far enough to engage coins for which the ma-

chine is adapted. Thinner disks will slide over said lip, so that the machine cannot be operated by them. If a coin lies in the operating-frame 14 beneath the flanges 16 16 and the plunger is forced inwardly against the resistance of the spring 26, the inner end of the plunger will engage the coin near its upper edge and through its engagement with the coin will, if pressed still farther in, force the operating-frame 14 forward upon its pivot until it has been elevated with reference to the lever 30, which is at the same time swung forward by said plunger, so that the head 35 of the plunger engages the edges 39 39 of the frame 14, that lie just below the widened portion 37 of the slot in said frame. The edges 39 are provided, respectively, with teeth 40 41, (see Fig. 4,) with which the head 35 of the lever 30 is adapted to engage. The operation of the operating-frame 14 by the plunger 9 and lever 30 will now be understood. It will be seen that if the plunger 9 is forced inwardly when there is no coin beneath the flanges 16 16 of the operating-frame 14 both the plunger and the lever will pass through the slot 36 in said operating-frame, the head 35 of the lever passing through the enlarged end 37 of said slot, for said enlargement is in line with the path of the lever when said operating-frame 14 is in the normal position shown in Fig. 6. If, however, the coin lies beneath the flanges 16 16 of the operating-frame 14, the inner end of the plunger as the plunger is forced inwardly engages said coin and tilts the operating-frame backward. The lever 30 is so arranged with reference to the operating-frame 14 that by the time the operating-frame is withdrawn from the lip 42, so that the coin can drop from said frame, the head 35 of said lever 30 will have engaged the edges 39 39 of said operating-frame that lie beneath the upper broadened opening 37 and will also have passed beneath the teeth 40 40 on said edges, so that if the plunger is released from pressure after the coin drops from said frame the operating-frame cannot resume its normal position. Said operating-frame can only resume its normal position after the piston has completed its full stroke and the respective parts have been carried through a complete operation. After the coin has been discharged from the frame it is swung through the remainder of its arc by means of the lever 30, whose head 35 now engages the edges 39 39 of said frame. When said frame has been rotated through its full arc, so that it has reached the position shown by dotted lines in Fig. 4, the head 35 of the lever 30 will have reached the lower widened portion 38 of said slot 36 and accordingly will pass through said frame, thereby releasing said frame and allowing it to be carried back to its normal position by a spring provided for that purpose. As soon as the plunger 9 is released



the coiled spring 26 carries both said plunger and the lever 30, attached to it, back into their respective normal positions. The upper widened portion 37 of the slot 36 in the frame 14 now lies in the path of the head 35 of said lever 30, as explained above, so that said lever is free to pass through said frame to its normal position.

Means are provided for stopping a coin and holding it upon the coin-plate 5 whenever the frame 14 is swung forward, so that it is not in position to receive said coin from said coin-plate. Otherwise if a coin was inserted when the coin-frame was not in proper position to receive it a package would not be delivered by the machine in return for said coin. The means shown consist of a bell-crank lever 46, which is pivoted at 47. The lower end of the lever is weighted, so that its upper edge 48 tilts forward into the path of the coin on the coin-plate 5, said coin-plate being perforated at 49 to admit the edge 48 of said lever. When the lever 30 is in its normal position, (shown in full lines in Fig. 4,) it engages a projection 50 upon said bell-crank lever 46 and holds said lever back, so that its edge 48 does not come within the path of a coin on the coin-plate 5. As soon, however, as the lever 30 is moved forward the lever 46 is released and its edge 48 drops forward through the slot 49 in the coin-plate 5 and prevents the coin from passing beyond it.

A fortune-telling device forms part of the mechanism. This fortune-telling device comprises a stationary figure 51, that has one arm 52 elevated and the other arm 53 pointed downward, in connection with an indicator or spinner in the form of a disk 54, rotatably supported beneath the extended hand of the downwardly-directed arm. The disk may, if desired, have figures or letters on its upper surface that refer to printed matter attached to the machine and purporting to be the fortunes of those who operate the device, the letter or number which stops beneath the extended finger indicating in each instance the fortune of the operator. The disk is operated by the frame 14 through a positive engagement with said frame. An angular arm 55 is attached to one of the sides or arms 15 of said operating-frame and carries at its other end a plate 56. The disk 54 is attached to a shaft 57, which is rotatably supported in a bracket 58 upon the platform 2. The shaft 57 has attached to it a toothed disk or wheel 59. The spring 60, by which the operating-frame 14 is returned to its normal position, is represented as attached at one end to the arm 55 and at its other end to the platform 2. (See Fig. 5.)

When the operating-frame 14 is tilted backward into the position shown by dotted lines in Fig. 4, it carries back with it the arm 55 until the plate 56, which lies in a plane that is at right angles to the plane of the wheel 59,

engages the wheel 59. When the operating-arm has been swung through its full arc, so that it is released from the lever 30 and is drawn back into its normal position by the spring 60, the arm 55 by the action of the spring 60 gives sufficient impulse to the wheel 59 to set the disk 54 revolving. The fortune-telling device, furthermore, acts as a retarder or drag on the operating-frame, which prevents the frame from being operated so rapidly that the plunger overtakes the coin after it has been released from the frame, but before it has fallen from it. If that occurs, the coin may become wedged in the machine and the parts locked so as to be inoperative.

The removable front panel of the casing is represented as attached at its lower end to the base 61 of the casing by projections 62 upon the end of said panel, that extend through perforations in said base 61, and at its upper end by a lock 63, whose bolt is adapted to pass through the inwardly-turned edge 54 of the rigid top piece 65 of the casing, and also a plate 66, that is fastened across the interior of the casing. Applicants reserve the right to file a separate application for a patent on the said means shown for attaching the front panel to the casing.

What we claim is—

1. In a coin-controlled vending apparatus, a hopper having an outlet at its lower end, a swinging frame pivotally supported opposite said outlet to move the lowest article therefrom, means to hold a proper coin or token in the swinging frame during its initial movement toward the magazine, means for delivering the coin to the swinging frame, an operating device to engage the coin held in the swinging frame to actuate the latter initially toward the magazine, a device operated by the operating device and normally out of engagement with the swinging frame, means for engaging said device with the swinging frame to complete the throw of the latter after it has been given its initial movement by the plunger and coin, and means for returning the parts to their normal positions.

2. A coin-controlled vending apparatus, comprising a magazine having an outlet at its lower end, a swinging frame pivotally supported opposite said outlet to move the lowest article therethrough, means to hold a proper coin or token in the swinging frame during its initial movement toward the magazine, means for delivering the coin to the swinging frame, a plunger to engage the coin held in the swinging frame to actuate the latter initially toward the magazine, a lever permanently engaged by the plunger and normally out of engagement with the swinging frame, said parts including means for engaging the free end of the lever with the swinging frame to complete its throw after the latter has been given its initial movement by



the plunger and coin, and means for returning the parts to their normal positions.

3. A coin-controlled vending apparatus, comprising a magazine having an outlet at its lower end, a vertically-swinging frame pivoted at its lower end with its upper end opposite said outlet to move the lowest article therethrough, means to hold a proper coin or token in the swinging frame during its initial movement toward the magazine, means for delivering the coin to the swinging frame, a plunger to engage a coin in the swinging frame to actuate the latter initially, a vertically-swinging lever pivotally connected to the plunger near its inner end, and normally out of engagement with said swinging frame, said parts including means for engaging the lever with the said swinging frame to complete its throw after the latter has been given its initial movement by the plunger and coin, and means for returning the parts to their normal positions.

4. A coin-controlled vending apparatus, comprising a magazine having an outlet at its lower end, a vertically-swinging frame pivoted at its lower end with its upper end opposite said outlet to move an article therethrough and provided with a longitudinal slot contracted for a portion of its length, means to hold a proper coin in said swinging frame and across the lower portion of the slot, a plunger to pass through the slot, engage the coin and actuate the swinging frame initially, a vertically-swinging lever operatively connected with the plunger with its upper end normally in line with the wider portion of the said slot, but adapted to engage the swinging frame at the contracted portion of said slot and complete its throw after said swinging frame has been given its initial movement by the plunger and coin, and means for returning the parts to their normal positions.

5. A coin-controlled vending apparatus, comprising a magazine having an outlet at its lower end, a swinging frame with its upper end opposite said outlet to move an article therethrough, means to hold a proper coin or token in the swinging frame during its initial movement toward the magazine, means for delivering the coin to the swinging frame, a plunger to engage the coin held in the swinging frame to actuate the latter initially, a lever operatively connected to the plunger near its inner end and normally out of engagement with the swinging frame, said parts including means for engaging the lever with the swinging frame to complete its throw after the latter has been given its initial movement by the plunger and coin, teeth on the outer side of the swinging frame for engagement by said lever to hold the swinging frame against premature return movement, and means for returning the parts to their normal positions.

6. A coin-controlled vending apparatus comprising a magazine having an outlet at its lower end, a swinging frame opposite said outlet to move the lowest article therethrough, means to hold a proper coin or token in the swinging frame during its initial movement toward the magazine, a coin-chute leading to the swinging frame, a coin-retaining lever pivoted below the lower end of the chute and having means to throw it into the path of a coin, a plunger to engage a coin held in the swinging frame to move the latter initially toward the magazine, an operating-lever permanently engaged by the forward end of the plunger, normally out of engagement with the swinging frame, and at the opposite side engaging the coin-retaining lever to hold it normally out of the path of a coin, said parts including means for engaging said operating-lever with the swinging frame, to complete its throw, after the latter has been given its initial movement by the plunger and coin, and means for returning the parts to their normal positions.

7. A coin-controlled vending apparatus, comprising a magazine having an outlet at its lower end, a swinging frame pivotally supported opposite said outlet to move the lowest article therethrough, means to hold a proper coin or token in the swinging frame during its initial movement toward the magazine, means for delivering the coin to the swinging frame, a plunger to engage the coin held in the swinging frame to actuate the latter initially toward the magazine, a lever permanently engaged by the plunger and normally out of engagement with the swinging frame, a fulcrum on which the lower end of said lever slides, said parts including means for engaging the free end of the lever with the swinging frame to complete its throw after the latter has been given its initial movement by the plunger and coin and means for returning the parts to their normal positions.

8. A coin-controlled vending apparatus, comprising a magazine, a swinging frame opposite to the magazine-outlet to remove the articles therethrough, and provided with a slot and coin-holding flanges or projections, means for delivering a coin to said swinging frame, a fixed horizontal projection extending through the slot in the swinging frame to support a coin, a plunger to engage the coin held in the swinging frame to actuate the latter initially off of the said projection and toward the magazine, a lever permanently engaged by the plunger and normally out of engagement with the swinging frame, said parts including means for engaging the free end of the lever with the swinging frame to complete its throw after the latter has been given its initial movement by the plunger and coin and means for returning the parts to their normal positions.



9. A coin-controlled vending apparatus comprising, a magazine having an outlet at its lower end, a swinging frame pivotally supported opposite said outlet to move the  
5 lowest article therethrough and provided with a laterally-projecting arm, means to hold a proper coin or token in the swinging frame during its initial movement toward the magazine, means for delivering the coin to  
10 the swinging frame, a plunger to engage the coin held in the swinging frame to actuate the latter initially toward the magazine, a lever permanently engaged by the plunger and normally out of engagement with the swing-  
15 ing frame, said parts including means for en-

gaging the free end of the lever with the swinging frame to complete its throw after the latter has been given its initial movement by the plunger and coin and then release said frame, a spring for suddenly retracting the  
20 swinging frame when so released, a spring for retracting the plunger, and an indicator mechanism having an actuating device in the return-path of the lateral arm of the swinging frame.

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