

No. 885,965.

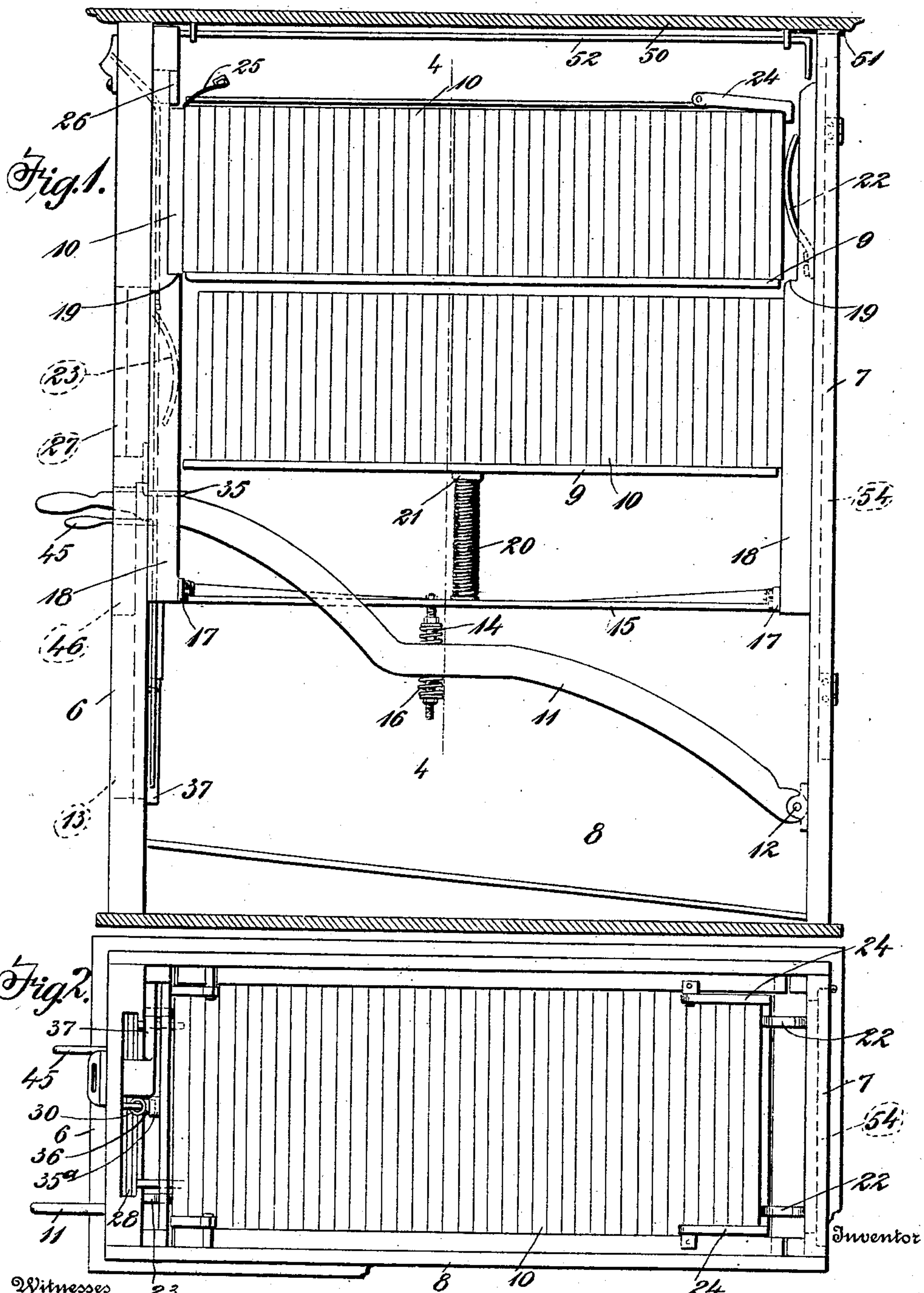
PATENTED APR. 28, 1908.

T. A. STEELE.

VENDING MACHINE.

APPLICATION FILED JAN. 15, 1908.

2 SHEETS--SHEET 1.



Witnesses

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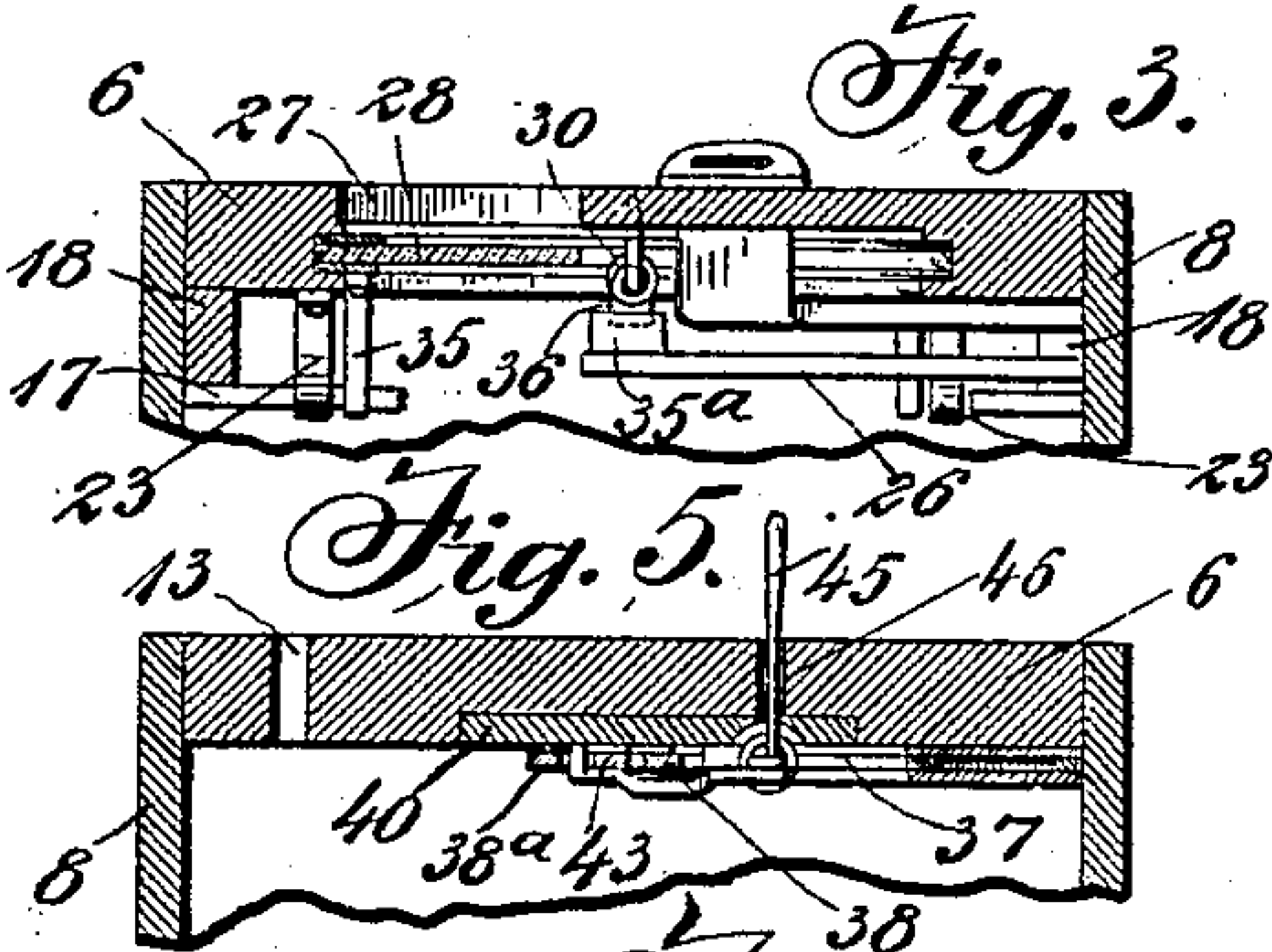
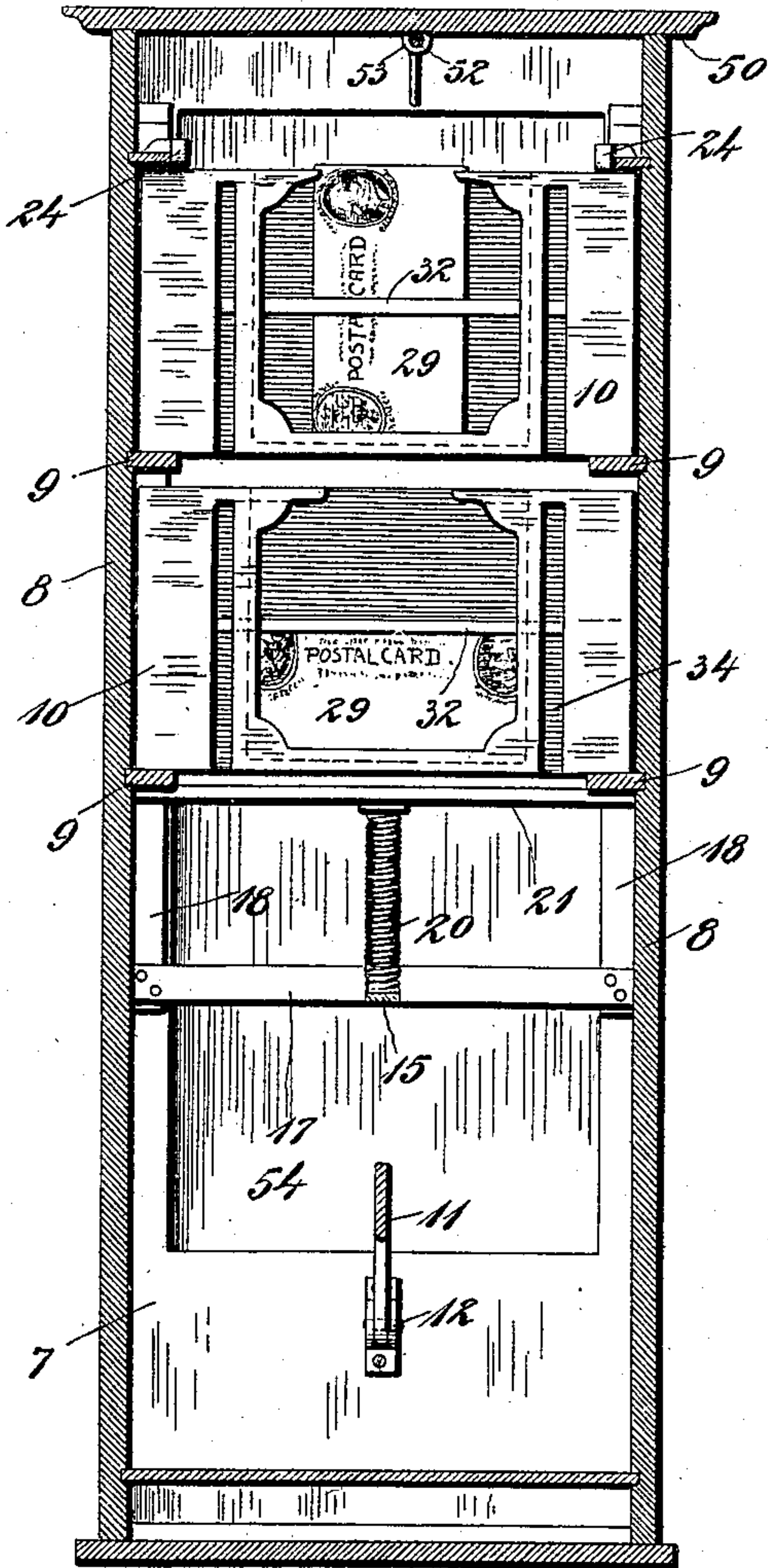
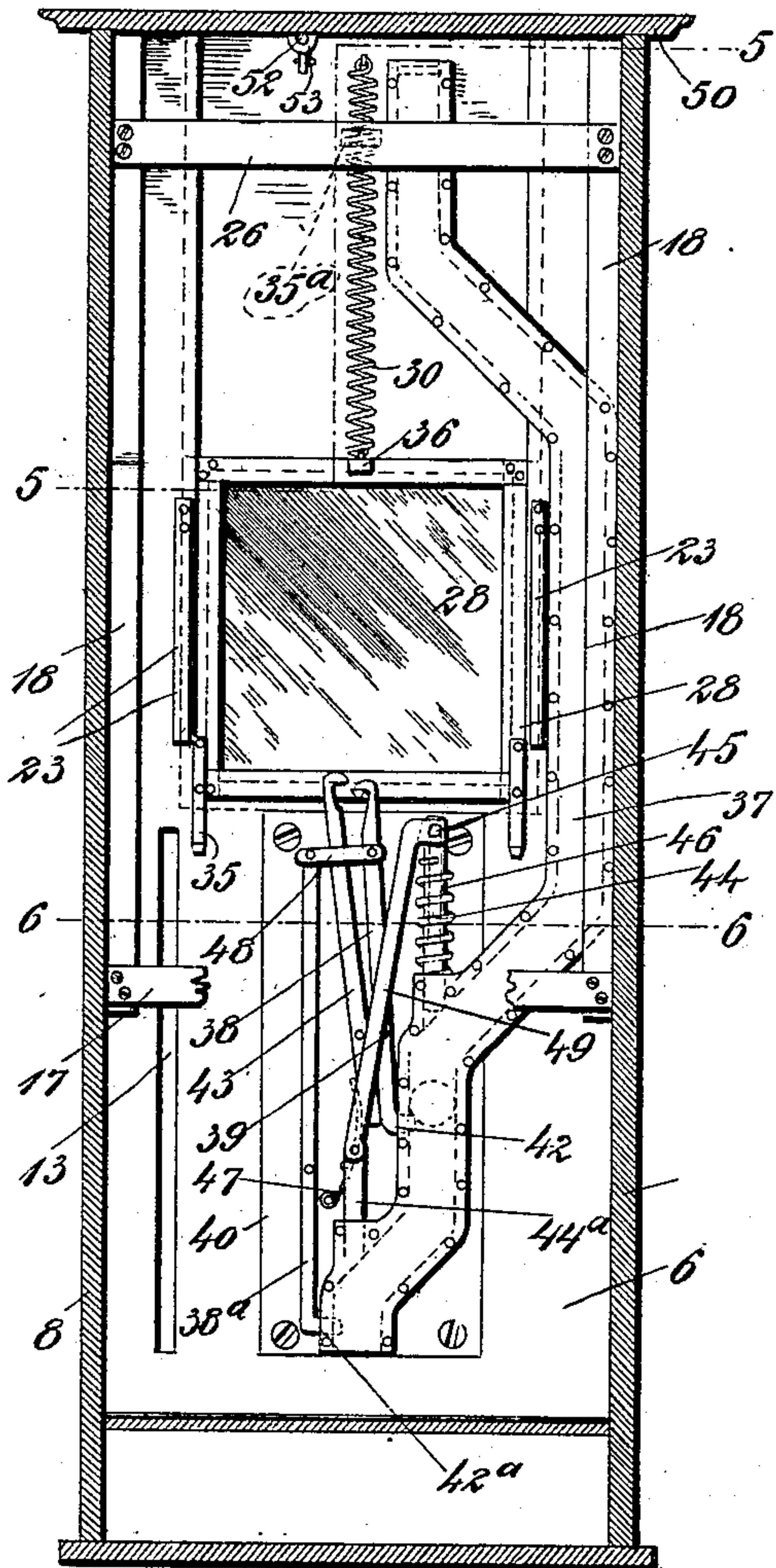


Fig. 3.

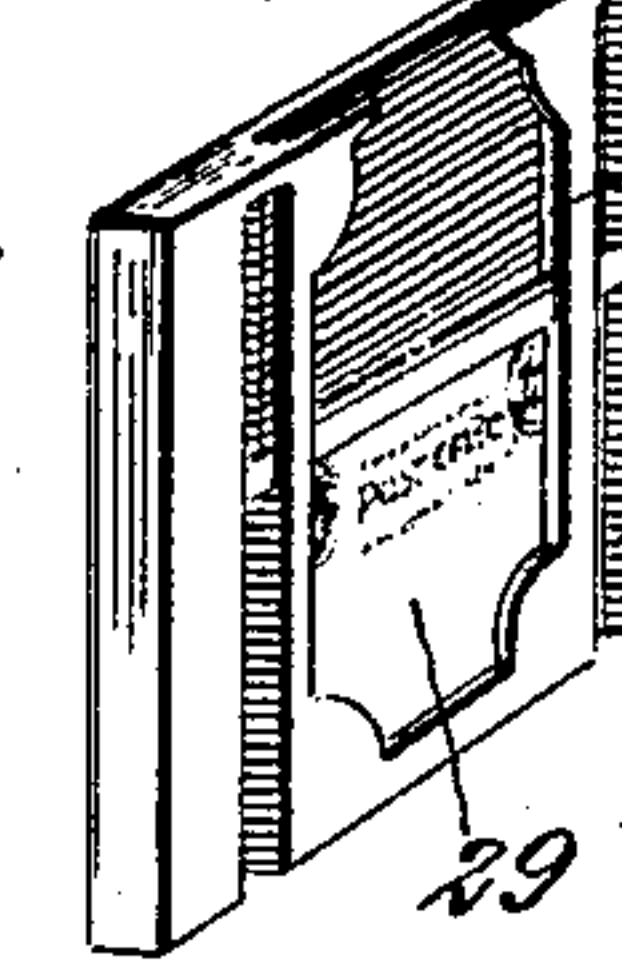


Fig. 4.



Fig. 5.



Fig. 6.

Witnesses
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UNITED STATES PATENT OFFICE.

THOMAS A. STEELE, OF POINT MARION, PENNSYLVANIA, ASSIGNOR OF ONE-HALF TO ELGIE P. DURR, OF POINT MARION, PENNSYLVANIA.

VENDING-MACHINE.

No. 885,965.

Specification of Letters Patent.

Patented April 28, 1908.

Application filed January 15, 1908. Serial No. 410,958.

To all whom it may concern:

Be it known that I, THOMAS A. STEELE, a citizen of the United States, residing at Point Marion, in the county of Fayette and State of Pennsylvania, have invented certain new and useful Improvements in Vending-Machines, of which the following is a specification.

This invention is a vending machine particularly adapted for delivering postal cards, pictorial or otherwise, but especially intended for pictorial cards, inasmuch as means are provided whereby the cards can be exposed in succession, so that a purchaser can select the desired card before the coin actuated mechanism for delivering the card is operated.

The object of the invention is to provide an improved machine for the purpose stated, and the construction and advantages will appear from the following description and the accompanying drawings.

In the drawings, Figure 1 is a side elevation of the machine with the inner side wall of the casing removed. Fig. 2 is a top plan view with the cover removed. Fig. 3 is an elevation of the rear side of the front plate or wall of the casing, showing the coin operating device. Fig. 4 is a view taken on the line 4—4 of Fig. 1. Figs. 5 and 6 are details in section on the lines 5—5 and 6—6, of Fig. 3, respectively. Fig. 7 is a perspective of one of the cards and holders. Fig. 8 is a detail in section illustrating the manner of releasing a retaining strip forming part of the card holder.

The casing of the machine is substantially rectangular in shape, the front and rear walls being indicated at 6 and 7 and the side walls at 8. This casing has in the upper part thereof two compartments for containing the card holders, said compartments being formed by strips 9 set in or secured to the side walls of the casing and projecting inwardly therefrom, forming shelves or guides which support the card holders 10. These shelves extend lengthwise and horizontally along the side walls of the casing, and one compartment or magazine is located above the other, both being filled with the card holders which are slidable along the guides 9, the holders in the upper compartment moving step by step forwardly, and those in the lower compartment moving step by step

rearwardly, as the exhibiting lever is manipulated.

The guides 9 terminate short of the front and rear walls of the casing, leaving a vertical space or passage of sufficient width to allow a single card holder to be dropped from the front end of the upper compartment into the front end of the lower compartment, and to allow a single holder to be lifted from the rear end of the lower compartment into the rear end of the upper compartment.

The exhibiting lever is indicated at 11. This is fulcrumed at 12 on the rear wall of the casing, in the lower part thereof, and extends at the front end through a slot 13 in the front wall of the casing, and it may be worked up and down to feed the card holders. At or about the middle it is connected by a threaded rod 14 to the lower bar 15 of a vertically slidable frame, coiled springs 16 being interposed between the lever and the rod to prevent fracture of the apparatus by unnecessarily violent operation. The bar 15 is connected at its ends to cross pieces 17 extending between the lower ends of upright pieces 18 which are slidable up and down in the corners of the casing, at the front and rear ends of the compartments containing the holders, in the spaces beyond the ends of the guides 9, left for that purpose. At the top the uprights 18 are recessed as at 19, the depth of these recesses being substantially equal to the thickness of one of the holders, and the length of the recesses being such that the shoulders at the bottom thereof are in line with the upper guides 9 when the frame is raised, and in line with the lower guides 9 when the frame is lowered. The frame is normally raised by a coiled spring 20 connected between a cross bar 21 at the top and the longitudinal bar 15: and the frame may be pulled down by pushing down on the handle of the lever 11, and is lifted to upright position as soon as the handle is released.

The holders in the upper compartment are normally pressed forward against the front uprights 18 by springs 22 at the back, and the holders in the lower compartment are normally pressed backwards against the rear uprights 18 by springs 23 at the front. Latches 24 are provided at the rear end of the upper compartment to engage over the

rearmost holder and prevent the same falling backwards or becoming disarranged, and spring fingers 25 press against the second holder at the front of the compartment to prevent the same from falling or tilting forward.

As shown in Fig. 1, the first holder 10 in the upper compartment is, in consequence of the springs 22, held in the recesses 19 in the front uprights 18 of the sliding frame. When said frame is pushed down the said front holder 10 drops with the frame, or is forced down by a cross piece 26 extending between the upper ends of said uprights, and at the limit of the downward movement of the frame, said holder 10 is brought in position in front of the holders in the lower compartment, and at the same time the holders in the lower compartment are forced back by the springs 23 so that the holder at the rear is pushed back upon the shoulders 19 of the rear uprights. When the lever is released the frame is slid up by the spring 20, thus lifting the rear holder from the lower compartment into the upper compartment, and the springs 22 then push the holders in the upper compartment forwardly until the front holder is in position in the recesses of the front uprights, as above described.

It will thus be seen that by manipulating the lever 11 the holders will be successively transferred from one compartment to the other, entering one compartment at one end and sliding along the same, and being transferred at the other end; and this operation may be continued indefinitely.

The front wall 6 of the casing has a delivery opening 27 located in front of a sliding window 28 which is slidable up and down in grooves in said wall. This opening and window are located in line with or opposite the front end of the lower compartment, but the window may be allowed to slide up to expose the front holder in the lower compartment and allow the desired card 29 to be removed therefrom by hand through the opening 27. The window is normally held down by a coin controlled latch mechanism to be described, but when released will be lifted by a coiled spring 30 at the top. The holder 10, shown particularly in Fig. 7, consists conveniently of a wooden plate or block having a recess 31 for the card and a retaining strip 32 extending across said recess and projecting at its ends through slots 33 and across grooves 34 formed in the front of the holder. The window frame has rearwardly extending fingers 35 which are placed in line with the grooves 34, and when the window is raised the fingers catch the ends of the strip 32 and lift the same, as shown in dotted lines in Fig. 8, thereby releasing the card and allowing it to be easily removed by the purchaser.

In the operation of the machine thus far

described, the purchaser will manipulate the handle 11 until the desired card is exhibited through the window 28 at the front of the lower compartment. He will then insert the appropriate coin to actuate mechanism which will allow the window to lift, and remove the card. The front holder in the lower compartment will then be empty. When the lever is depressed to bring another holder in line with the window, the window will also be pushed down or closed by reason of a projection 35^a on the front of the bar 26 which strikes a lug 36 projecting rearwardly from the top bar of the frame of the window 28, and when fully pushed down the window will be caught by the latch of the coin mechanism and held until said mechanism is again operated.

The coin mechanism has a chute 37 which leads down the front of the casing to a latch 38 which is pivoted at 39 to a front plate 40 secured to the front wall of the casing. The latch is hooked at the top to engage over a beveled lug 41 on the lower bar of the window frame, and at its lower end the latch has a toe 42 which projects through an opening in the side of the chute and in position to engage and stop a coin dropped into the chute. There is also a secondary latch lever indicated at 43 which is engageable over the lug 41 when the latch 38 is released, and which is simply a safety catch for the purpose of preventing anyone from "holding down" the coin device and operating the machine indefinitely. The coin mechanism also includes a push rod 44 which has at the top a pin 45 extending through the front wall of the casing and movable up and down in a slot 46 in said wall. The lower end of the push rod is located in position to project or enter into the chute 37, as shown in Fig. 3.

When a coin is deposited it rolls down the chute and stops against the toe 42. Then by pushing down on the pin 45 the coin is forced over the toe, causing the latch lever 38 to swing and release the hook at the head thereof from the lug 41. The same movement swings the safety catch 43 and engages the hook at the head thereof over said lug. This holds the window until the pin 45 is released, when the coiled spring 46 will lift the push rod and the safety latch will be released and the parts returned to normal position by a flat spring 47 bearing against the lower ends of the latches. The window will then spring up, as above described, and the coin will fall.

For the purpose of delivering two cards for each coin (picture postals being often sold two for a nickel) I provide a second release mechanism operating in a manner similar to that above described. Thus I provide a second latch lever 38^a which has a toe 42^a projecting into the coin chute below the upper latch, and this lever is connected by a bar 48 to the latch 38. There is also another push

pin 44^a which is connected to the upper push pin by a rod 49. When the coin is pushed beyond the toe 42 it rolls down the chute to the toe 42^a, and in order to obtain the second card the purchaser (having meanwhile shifted another card holder to the window), again pushes down on the pin 45, and the lever 38^a releases the latch 38 and the operation above described, resulting in the lift of the window, is repeated.

To enable the empty card holders to be filled the top 50 of the casing is hinged at the back, at 51, and may be swung open, allowing the cards to be slipped in the holders from the top: and by operating the lever 11 all the holders in the lower compartment can also be shifted to position to be filled. The cover has a latch 52 the front end of which is engageable under a lug 53 on the front wall of the casing, and this latch extends rearwardly to the back of the machine where it may be reached through a door 54 at the rear of the casing. This arrangement avoids the expense of a lock on the top of the casing, the door at the back, of course, being provided with a lock.

The device is capable of modification in various particulars, within the scope of the invention, and therefore the invention is not limited to the exact embodiment shown.

I claim:

1. In a vending machine, the combination of a casing having a delivery and exhibiting opening, a magazine for articles in the casing, comprising a plurality of adjoining compartments one of which is opposite said opening, means to shift the articles to and from one compartment to the other, at opposite ends thereof, to bring the articles in succession opposite said opening, and means permitting removal of the selected article through said opening.

2. In a vending machine, the combination of a casing having a delivery and exhibiting opening in the front thereof, a magazine in the casing, consisting of two compartments located adjacent to each other and having spaces at the ends thereof permitting transfer of articles from one compartment to the other, the front end of one of said compartments being opposite the said opening, a frame slidable in said spaces and constructed to shift articles in succession from one compartment to the other, and means permitting removal of an article through said opening.

3. In a vending machine, the combination of a casing having a delivery and exhibiting opening in the front thereof, upper and lower compartments in the casing for the articles to be vended, having spaces at their ends through which articles may be shifted from one compartment to the other, the front end of one compartment being opposite the said opening, and a transfer frame

slidable in said spaces and across the ends of the compartments and provided with means for engaging and shifting articles in succession from one compartment to the other.

4. In a vending machine, the combination of a casing having a delivery and exhibiting opening in the front thereof, upper and lower guides in the casing forming upper and lower compartments for articles to be vended, the front of the lower compartment being in line with said opening, holders for said articles, slidable on the guides and filling the compartments, said guides having spaces at the ends through which a holder may be shifted from the front end of the upper compartment to the same end of the lower, and from the rear end of the lower to the same end of the upper, and a frame slidable up and down in the casing and having means at the ends of the compartments for engaging and shifting the holders as stated.

5. In a vending machine, the combination of a casing having a delivery opening and a sliding window across the same, an article holder behind the opening, having an article retaining device, and means permitting opening of the window to allow access to the holder, said window having a projection engageable with said retaining device to release the same when the window is opened.

6. In a vending machine, the combination of a casing having a delivery opening and a sliding window therefor, a magazine in the casing, holders in the magazine for the articles to be vended, said holders being slidable in succession to position behind the said opening, means permitting opening of the window, for removal of the article from a holder, and means for closing said window, actuated by movement of the next holder to position behind the opening.

7. In a vending machine, the combination of a casing having a delivery opening, a closure therefor, having a spring connected thereto and tending to open the same, a catch engageable with the closure to hold the same closed, means to feed articles to the opening, and means actuated by said means to close the closure.

8. In a vending machine, the combination of a casing having a delivery opening, a window slidable across the same and having a spring connected thereto tending to open the same, and also having a projecting lug, a catch engageable with said window to hold the same closed, means to release the catch, and a frame adapted to advance articles to the opening and engageable with the lug to close the window.

In testimony whereof I affix my signature, in presence of two witnesses.

THOMAS A. STEELE.

Witnesses:

JOSEPH SELK ELY,
ELGIE PRESTON DURR.