No. 815,731. PATENTED MAR. 20, 1906.

J. E. PACKARD.

VENDING MACHINE.

APPLICATION FILED APR. 22, 1903.

4 SHEETS—SHEET 1.

Fig. 1

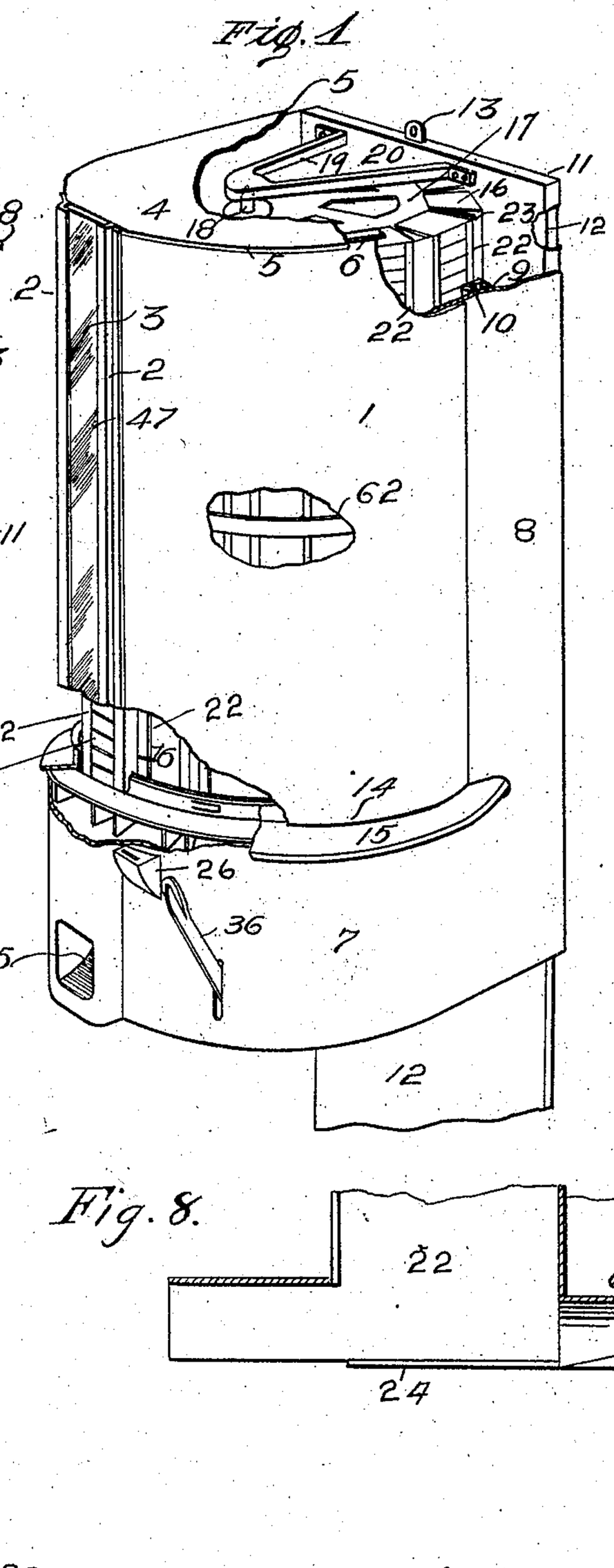

Fig. 3

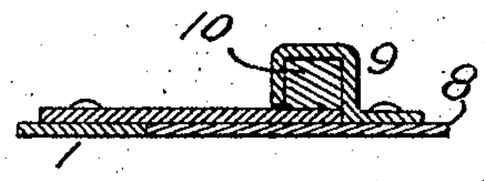

Fig. 4

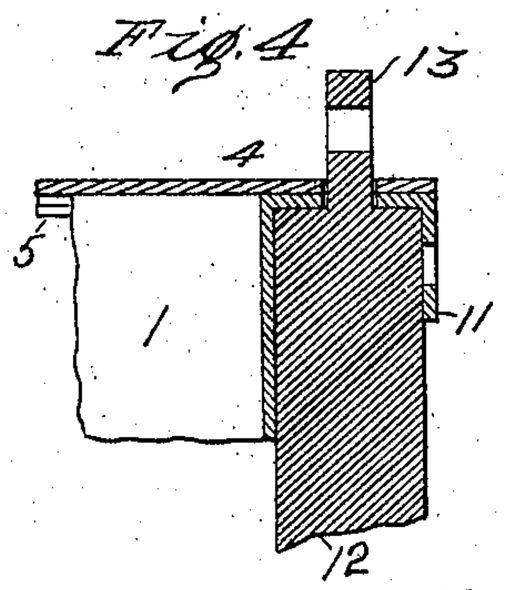

Fig. 8.

Witnesses

Harry A. Brooks

Mignon Ford

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by Charles S. Rogers

his Attorney

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4 SHEETS—SHEET 2.

Fig. 2

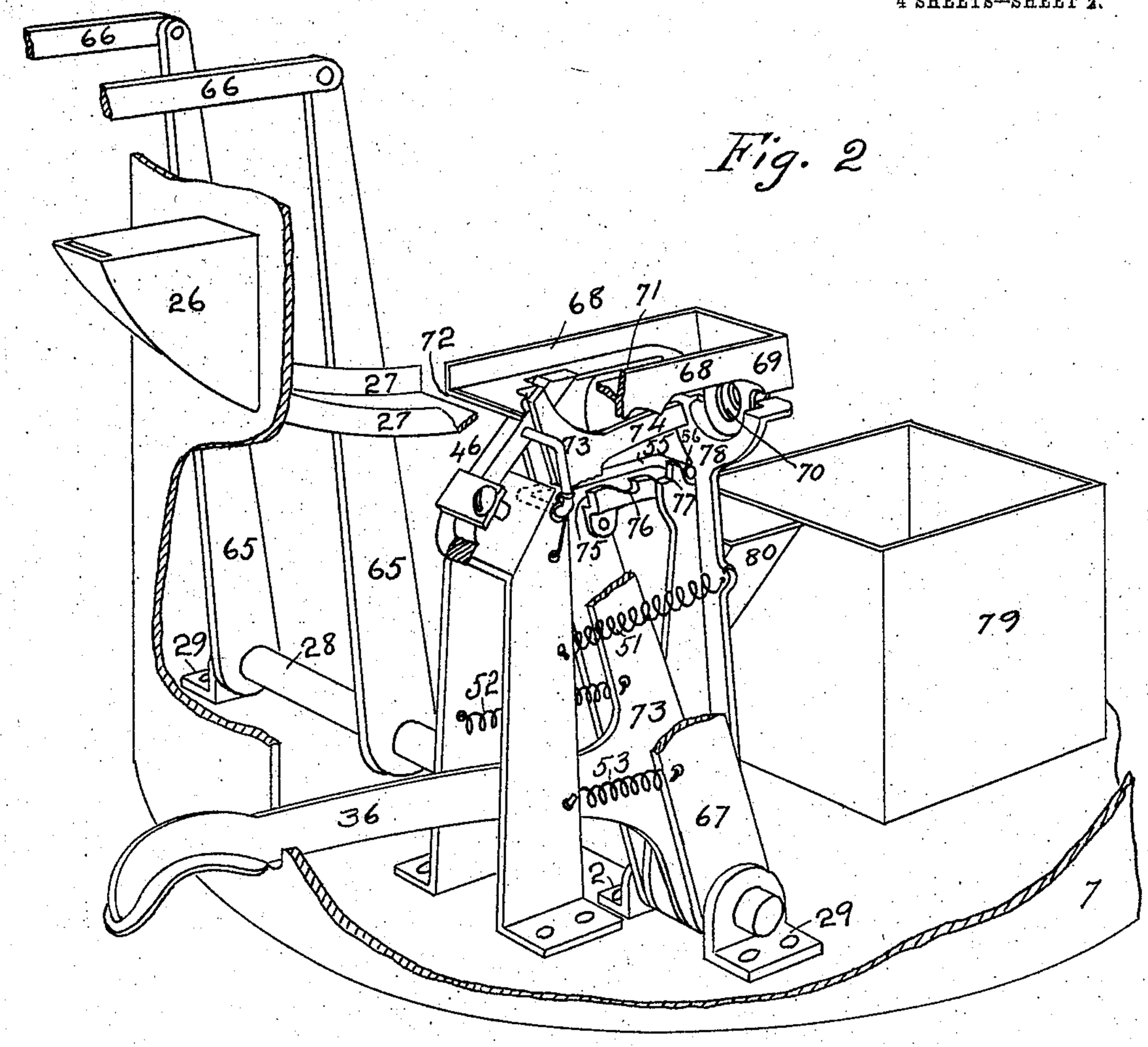
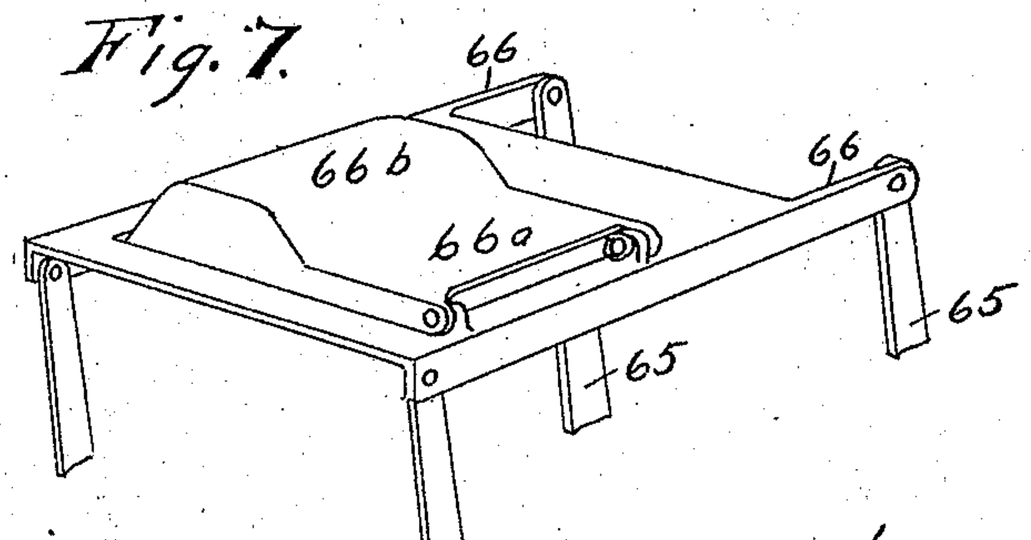


Fig. 7.



Witnesses

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4 SHEETS—SHEET 3.

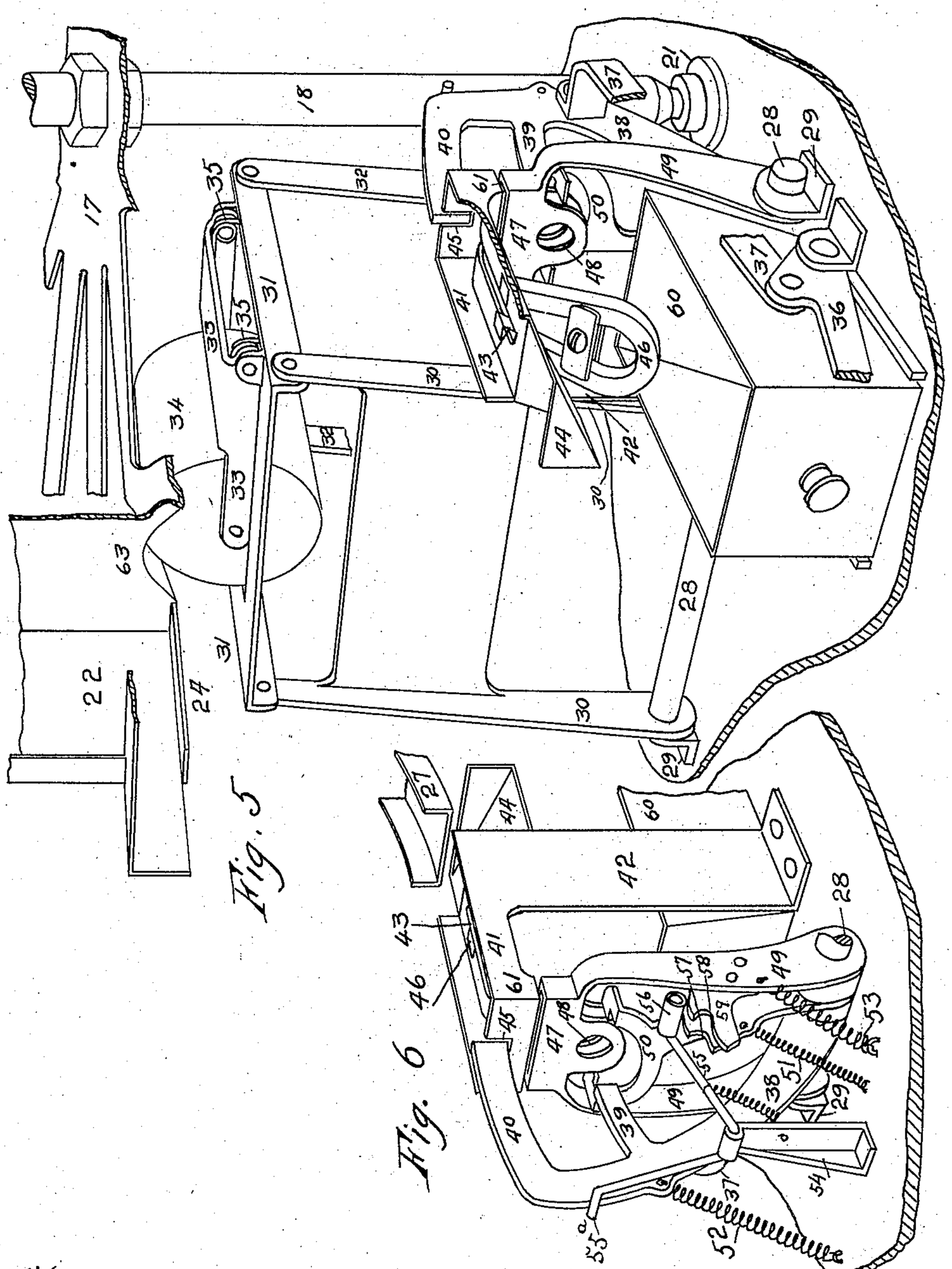

Fig. 5

Fig. 6

Witnesses

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4 SHEETS—SHEET 4.

Fig. 9

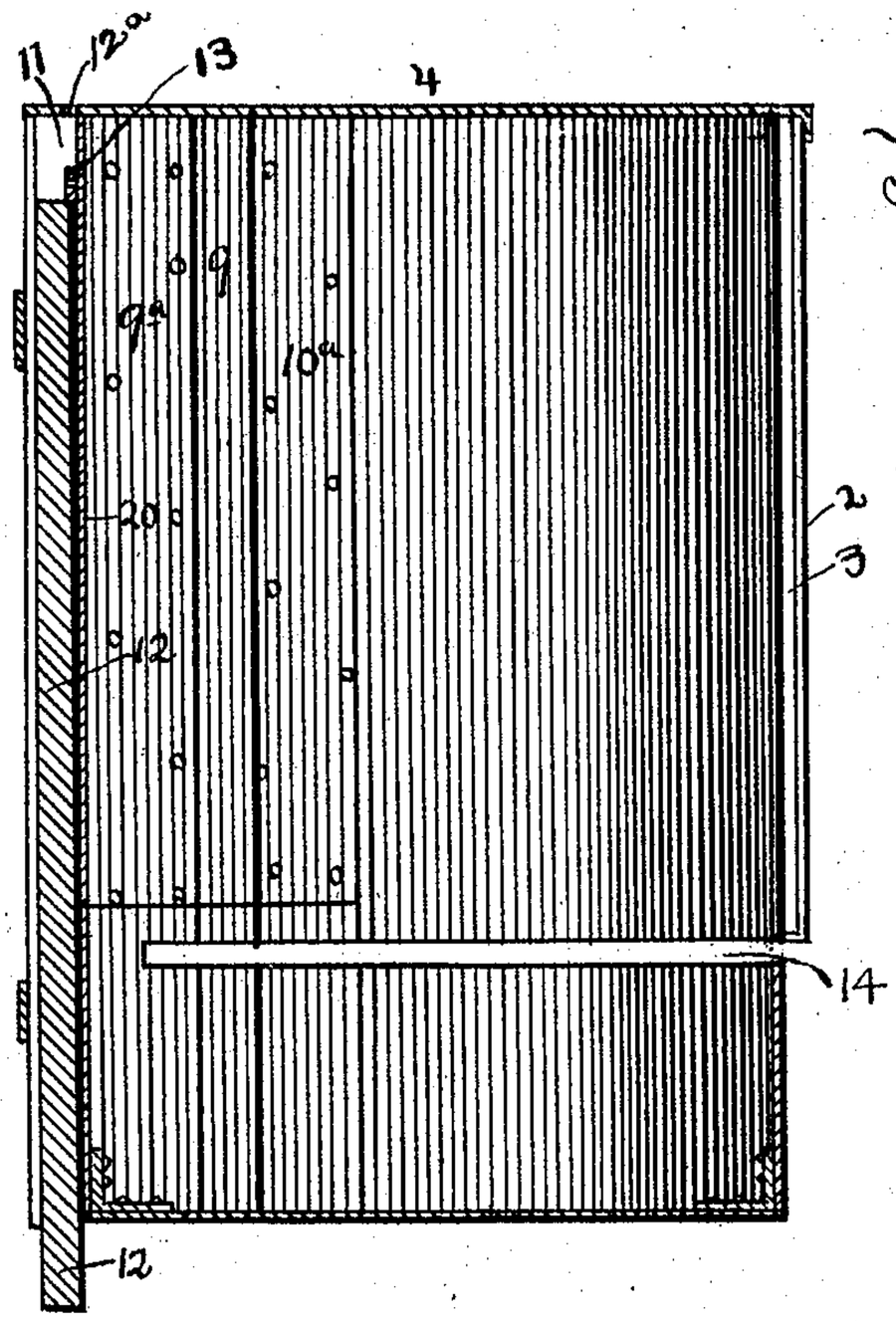


Fig. 10

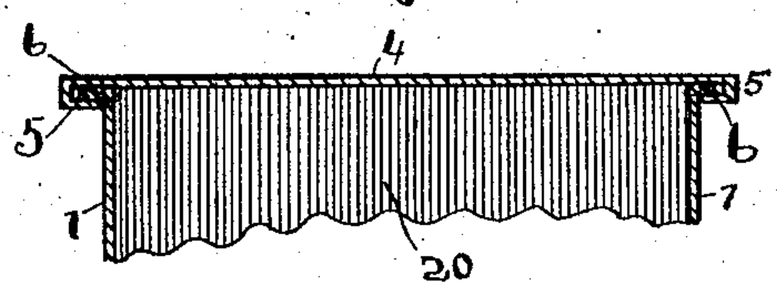
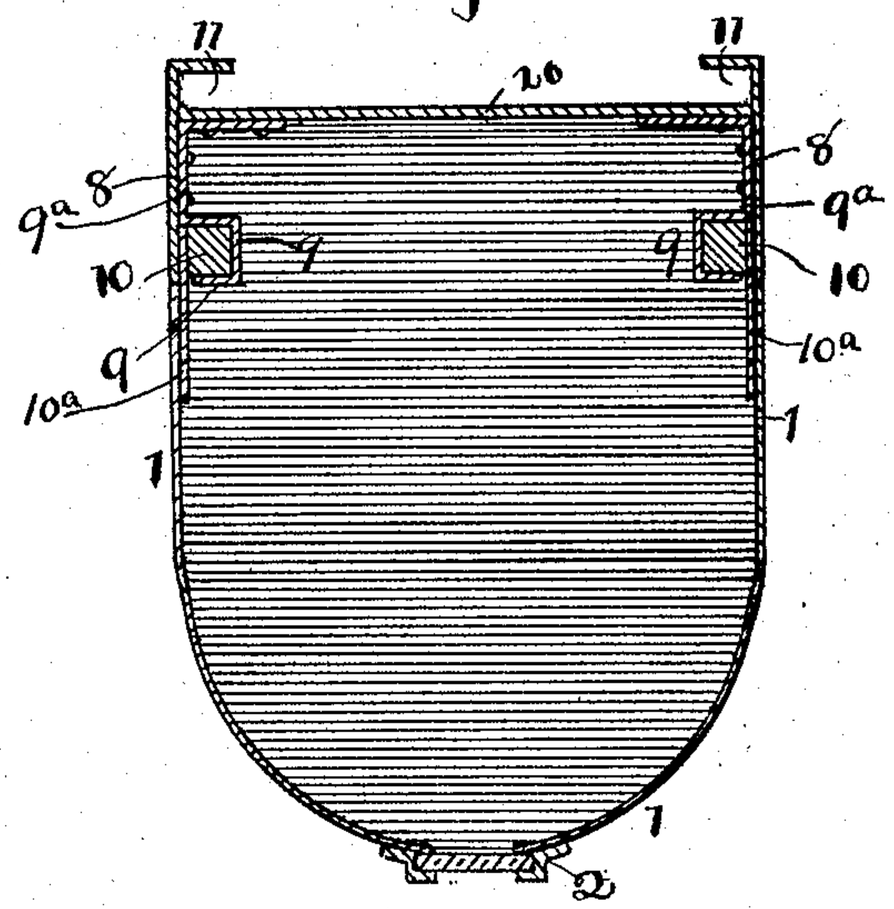


Fig. 11.



Witnesses:
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Walker Banning.

Inventor.
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Attys.

UNITED STATES PATENT OFFICE.

JOHN E. PACKARD, OF LOS ANGELES, CALIFORNIA, ASSIGNOR TO MULTI-VENDING COMPANY, OF PIERRE, SOUTH DAKOTA, A CORPORATION OF SOUTH DAKOTA.

VENDING-MACHINE.

No. 815,731. Specification of Letters Patent. Patented March 20, 1906.

Application filed April 22, 1903. Serial No. 153,852.

To all whom it may concern:

Be it known that I, JOHN E. PACKARD, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented certain new and useful Improvements in Vending-Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to that type of vending-machines in which a rotatable commodity-carrier having therein compartments to receive the article to be vended is inclosed within a casing.

The objects of the invention are to furnish a casing composed of a plurality of interlocking sections constructed and arranged for the several sections to be securely locked and held in position when the top or cover is in place; to construct a casing with a plurality of sections so formed and arranged as to slidably engage one with the other and furnish an interlock by which the casing as a whole is secured together without the use of screws or other similar fastening means; to construct a casing in which the several sections are slidably engaged and held in position by a slidable top adapted to be locked to a support and when locked prevent the tampering with the casing and at the same time securing the sections of the body of the casing fixedly in place; to furnish a combined centering and discharging device spring-actuated and controlling the position of a revoluble commodity-carrier; to construct a discharging device supported by a carriage and have the carriage oscillate through the means of arms, a rocking shaft, and an actuating-lever, and to improve generally the construction and operation of the several elements entering into the mechanism for actuating the discharging device or ejector.

The invention consists in the features of construction and combinations of parts hereafter described and claimed.

In the drawings, Figure 1 is a perspective view with the body of the casing broken out and with the top or cover and a corner of the body of the casing broken out to show the revoluble commodity-carrier; Fig. 2, a perspective view of the mechanism controlling the movement of the carriage for the discharging device or ejector, showing some of the parts broken off or broken out and in section; Fig. 3, a detail in section, showing the interlock for the removable section of the body of the casing; Fig. 4, a detail in section, showing the back support for the machine engaged with the top or cover of the machine; Fig. 5, a perspective view, partly broken away and illustrating the commodity-carrier, the discharging device or ejector, the carriage therefor, the supporting-arms, and the rock-shaft and the coin-controlled mechanism; Fig. 6, a perspective view showing the coin-controlled mechanism; Fig. 7, a detail in perspective, showing a modified construction of the discharging device or ejector, its carriage, and support; Fig. 8, a detail in section, showing the lower end of a package-compartment; Fig. 9, a sectional elevation showing the construction of the casing with the backboard or backing partly slid to its final position; Fig. 10, a detail in cross-section, showing the interlock between the top and the upper end of the body of the section; and Fig. 11 a cross-section through the body of the casing with the backboard or backing removed.

The casing is constructed of a plurality of sections interlocked with each other, so as to enable the front section of the body of the casing to be removed from the remaining section of the body of the casing and with the top slidable into position to lock the body-sections fixedly in place. The front section 1 of the body of the casing is preferably formed with a front wall of a semicircular shape in cross-section and continuing straight side walls, as shown more particularly in Fig. 11. This front 1 can be made of sheet metal or other suitable material bent or otherwise formed into the preferred shape. The center of the semicylindrical front wall of the section 1 of the casing has therein a vertical slot, and on each side of this slot are guides 2, fixedly secured to the face of the section, leaving a channel between the guides and the wall of the section of the casing, in which channel is entered a strip 3 of transparent material, so that observation can be made as to the condition of the revoluble commodity-carrier inside of the casing. The strip 3 of transparent material can be slid into position and when in position the strip, as well as the

section 1 of the body of the casing, is held in position by the top or cover 4, for which purpose the periphery of the top or cover has a flange 5, so turned as to form a groove into which enters a flange or shoulder 6 at the upper end of the front section of the casing. The remaining section of the body of the casing consists of a lower or base portion 7, extending up from which at the rear side are strips 8, forming with the side walls of the section 1 the side walls of the casing as a whole, and the front of the base portion 7 is semicylindrical in shape to form with the front wall of the section 1 the front wall of the casing as a whole. The vertical strips 8 each have secured thereto a strip 9^a, bent to form a groove or channel 9, and into each groove or channel 9 is entered an interlocking bar 10, secured to a strip 10^a, attached to the wall on each side of the casing. The interlocking bars 10 can be entered into the grooves or channels 9 and when entered the front section 1 of the casing will be fixedly secured to the base or remaining section of the casing, making a casing complete as a unity. The front section 1, it will be seen, is removably attached to the base-section, so that it can be slid upwardly and removed to enable access to be had to the interior of the casing. The upper end of the side strips 8 of the base-section of the casing each has a flange or tongue corresponding to the flange or tongue 6 on the front section 1, which flange or tongue enters the groove or channel 5 of the cover for the cover to furnish a lock when in place against the withdrawal of the front section 1 of the casing and make a complete casing out of the several separable sections.

The rear edge of each strip 8 in the construction shown is rearwardly extended and turned at right angles to form a groove or channel 11 between the right-angle portion of each strip 8 and a backing 20, secured to the strips 9^a or otherwise. The channels or grooves 11 receive the side edges of a backboard or backing 12, which ean be entered at the bottom end of the grooves or channels 11 and slid upwardly in the grooves or channels to lie adjacent to the back 20 of the casing. The upper end of the backboard or backing 12 has secured thereto a hasp or perforated projection 13, which when the backboard or backing is fully entered passes through a hole formed therefor in the top or cover 4, so that a hasp-lock or other suitable device can be passed through the hasp or perforation of the projection 13, and thus secure the top or cover against being slid off until the securing means is removed from the backboard or backing and the board or backing slid downwardly sufficient to withdraw the hasp or perforated projection 13 away from the hole 12^a in the top or cover.

The casing, consisting of the removable front section 1, the fixed base-section 7, with its strips 8, and the interlocking grooves 9 and bars 10, enables the front section 1 of the casing to be readily attached and detached. The sections of the body of the casing when the front section is in place are united and held against withdrawal of the front section 1 by the engagement of the peripheral grooves 5 of the top or cover with the flange or tongue 6 on the upper end of the removable section 1 and the strips 8, and the cover in turn is held against withdrawal by the engagement of the hasp or perforated projection of the slidable backboard or backing with the perforation in the top or cover. The casing thus formed of the removable front section and the removable top or cover enables the casing as a whole to be united readily and quickly and without the necessity or use of screws or other fastening means, and when the top or cover is locked against withdrawal the casing remains intact, and access cannot be had to its interior. At the same time the unlocking and withdrawal of the top or cover enables the front section 1 to be removed or withdrawn, so that ready access is had to the interior of the casing. The backboard or backing enables the machine as a whole to be placed upon a counter or other support or to be fastened to a wall or to be otherwise secured in place, so that the machine cannot be interfered with or turned upside down without releasing the backboard or backing, nor can access be had to the interior of the casing until the top or cover is unlocked and removed.

At the upper line of the base-section 7 of the casing and extending rearwardly into the strips 8 is a slot or opening 14. (More particularly shown in Figs. 1 and 9.) An annular ledge or shelf 15, formed on or connected with a revoluble cylindrical or other shaped receptacle 16, projects through the slot or opening 14, so that its periphery can be caught or engaged by the hand of the purchaser and the revoluble commodity-carrier turned to a position to bring a compartment or receptacle thereof in correct relation to the discharging device or ejector for the discharging device or ejector to push out an article, which will drop into position where it can be reached by the purchaser. The revoluble commodity-carrier in the construction shown is located between a top and bottom support 17, each support, as shown, being in the form of a spider having radial arms. The two supports are secured to a shaft 18, which shaft at its upper end revolves in a hanger or bracket 19, secured, as shown, to the back 20 of the casing, and the lower end of the shaft revolves in a bearing 21, secured to the base or bottom of the casing or machine. The revoluble commodity-carrier 16 in the construction shown consists of a plurality of compartments or troughs 22, each

compartment or trough adapted to receive a multiplicity of packages 23 of the commodity to be vended, and each compartment or trough at its lower end, as shown, is provided with a lateral flange or lip 24 on each side thereof, (see Figs. 5 and 8,) on which flanges or lips the lowermost package in the compartment or trough rests and is supported in such manner as to allow of the engagement of the discharging device or ejector with the lowermost package for the action of the discharging device or ejector to push out the lowermost package to be delivered to the purchaser. The discharged lowermost package drops onto a curved chuteway 25, out of which the package slides to an opening in the front of the base, where it can be reached by the purchaser or the party operating the machine and withdrawn. A coin-chute 26 opens through the front wall of the base 7, and this chute extends into the base downwardly on a curve, so that a coin entered into the mouth of the chute will slide flatwise down the chute inside of the casing to be discharged upon a receiver or cradle, the coin-chute having side flanges 27 to guide the coin, so as to be discharged from the chute into the coin receiver or cradle.

The discharging device or ejector is more particularly illustrated in Figs. 5 and 6 of the drawings as to the construction of the carriage and the arms on which the carriage is supported. A rock-shaft 28 is mounted in suitable bearings or brackets 29, secured upon the bottom of the casing or other support. The shaft 28 has fixedly secured thereto the lower ends of arms 30, and the upper ends of the arms 30 are pivotally connected each with one end of the side bars or pieces of a roller-carriage 31, the other ends of the side bars or pieces of the roller-carriage being pivotally connected with the upper end of two arms 32, which arms are pivotally mounted at their lower ends on the bottom of the casing or machine. The arms 30 are free to rock with the shaft 28, and the arms 32 are free to rock on their bottom pivots, so that when the arms 30 are oscillated the roller-carriage 31 will be moved back and forth with the oscillation of the supporting-arms therefor. The carriage 31 has pivotally mounted thereon a frame 33, consisting of side bars and a cross-bar at one end of the side bars and pivotally mounted in ears extending up from the carriage, so that the frame at its free end is free to rise and fall vertically, and, as shown, the free end of the frame is held in its normal elevated position by a spring or springs 35, mounted on the pivots of the frame, with one end of the spring or springs extending under the cross-bar of the frame, as shown in Fig. 5. The frame 33 has mounted therein a discharging-roller 34, which roller is so located and arranged in relation to the revoluble commodity-carrier as that with the forward swing of the carriage 31 through the arms 30 and 32 the end of the discharging-roller will engage with the lowermost package in a selected trough or compartment 22 and force such package out, so that it can be dropped on the inclined receiver or guideway 25 and be deposited within reach of the purchaser.

An actuating-lever 36 has its outer end projecting through the front wall of the base of the casing, where it can be grasped by the purchaser or operator of the machine. This lever 36 can be pivotally mounted at its inner end in any suitable manner, and as shown its inner end is mounted on an ear attached to the bottom of the casing or machine and has attached thereto by a suitable pin or pivot one end of a link 37, the other end of which link is pivotally attached to an arm 38, loosely mounted on the shaft 28 and free to oscillate or vibrate on the shaft as a pivot. The plunger-arm or coin-discharging lever has projecting out therefrom a stem 39 and at its upper end has a second stem 40, the stem 39 being for the purpose of engaging a coin and oscillating the coin-controlled mechanism to actuate the discharging roller or ejector. A coin-cradle 41 in the arrangement shown is mounted on an upright or standard 42, attached to the bottom of the casing or otherwise supported. This coin-cradle, as shown, has a longitudinal slot or depression 43 and at the receiving end has an inclined runway 44 for receiving and discharging false tokens. The cross-wall at the delivery end of the receiver or cradle, as shown, has a slot 45 for the passage of the upper stem 40 of the discharging-lever or plunger-arm 38, so that the end of the stem will engage a false token caught in the receiver or cradle and carry such token to be deposited in the runway 44 out of the receiver or cradle. A magnet 46 can be mounted to coact with the receiver or cradle and stop a false token having magnetic properties, and, as shown, the ends of the pole-pieces of the magnet extend through the bottom of the carriage on each side of the slot or depression 43, so as to attract and hold in the receiver or cradle coins or tokens having magnetic properties, and thus prevent the use of such false coins or tokens in operating the machine.

A coin-retainer 47 is located below the delivery end of the receiver or cradle and receives thereinto a coin of the proper denomination, and this retainer, as shown, has holes 48 and is carried by standards 49, secured upon the shaft 28, and below the coin-retainer a coin-stop 50 is loosely mounted on the shaft 28, which stop supports the coin vertically edgewise in the retainer, so that the face of the coin can be engaged by the stem 39, the end of which passes through a hole 48 for this purpose. A spring 51, attached at one end to a wing or plate extend-

ing out from the coin-stop 50 and at the other end to a fixed point, serves to return or retract to normal position the coin-stop. A spring 52, attached at one end to the arm or lever 38 and at the other end to a fixed point, serves to return or retract to normal position the arm or lever, and a spring 53, attached at one end to the coin retainer or support 47 and at the other end to a fixed point, serves to return or retract to normal position the retainer or support. A standard or upright 54, attached to the bottom of the machine or otherwise, has mounted in its upper end a spring-pawl 55, the acting or stop end 56 of which carries an antifriction roller or sleeve to engage with notches 57 on the wing or plate of the coin-stop 50 and notches 58 on a plate 59, extending out from an arm 49, and when engaged holds the coin retainer or support 47 in its advanced position, so as to deposit the coin therein into a trough or other receptacle 60, such deposit of the coin occurring with the initial backward movement of the plunger-arm or discharge-lever 38, which allows the coin in the retainer or support to fall therefrom into the trough or receptacle. The return of the plunger-arm to its normal position acts to release the pawl for the coin retainer or support 47 to assume its normal position under the slotted discharge end 61 of the coin receiver or cradle in position to receive the next deposited coin.

The arm which carries the spring-pawl 55 has an upward extension terminating at the end in a lateral projection which is in line with the movement of the plunger-arm or discharge-lever 38, so that on the return movement of the plunger-arm or discharge-lever its edge will engage the side projection of the upward extension of the arm carrying the pawl and move such extension rearward, raising the arm of the pawl and releasing the stop end of the pawl-arm from engagement with the notches 57 and 58, allowing the coin-stop and the coin-retainer to return to normal position, such return being effected by the coil-springs 51 and 53, attached, respectively, to the coin-stop and the coin-retainer.

The operation is as follows: The entered coin passes down the coin-chute 26 into the coin receiver or cradle and enters the coin retainer or support, where it is held vertically edgewise by the coin-stop. The operating-lever is then depressed and the stem 39 of the plunger-arm or discharge-lever 38 is forced through the adjacent hole 48 in the coin retainer or holder 47 and engages the face of the coin, so that with a further movement of the plunger arm or lever 38 the coin retainer or support will be moved to its advanced position and over the coin trough or receptacle. The coin retainer or support 47 is held in its advanced position by the engagement of the acting end of the pawl 55 with the notch of the plate 59, and on the initial return or retraction of the plunger arm or lever 38 the coin is released and drops out of the coin retainer or support and the coin retainer or support remains in its advanced position until released from the pawl by the return to normal position of the plunger-arm, the return of the plunger-arm, the coin retainer or support, and the coin-stop being effected by their respective springs. The movement of the coin retainer or support to its advanced position rocks the shaft 28, and the rock of the shaft 28 oscillates the arms 30 and the arms 32, moving the carriage 31 in the direction for the end of the roller-ejector to engage the lowermost package and discharge such package from its compartment or trough to drop on the inclined way to be delivered within reach of the purchaser, and the ejector-roller will be retained in its discharging position until the release and return of the coin retainer or support from its advanced position, and with the return or retraction of the coin retainer or support, the roller-ejector will be returned to normal position for engagement with the lowermost package in a selected compartment or trough to discharge such package upon the deposit of the coin of the proper denomination and the actuating of the coin-controlled mechanism by which the shaft 28 is rocked.

It will be understood that the commodity-carrier 16 can be readily and easily revolved by means of the extension or ledge 15, which projects through the slot 14, and such revolving of the commodity-carrier can be continued until the name of the article desired appears in front of the window 3, the names of the articles in the various compartments or troughs being printed or otherwise formed on a band or strip 62, (see Fig. 1,) so as to designate the article contained in the packages in each compartment or trough. The revolving of the commodity-carrier may be such as to not bring the selected compartment in exact register with the discharge-roller or ejector 34, and when this is the case the upward pressure of the discharge-roller or ejector against and upon the segmental or concave edge 63 of the commodity-carrier, a segmental or concave edge being provided for each compartment, will tend to center the compartment and bring the same into correct alinement automatically for the action of the discharge-roller or ejector, thus insuring the proper positioning of a compartment with the discharge-roller or ejector, which is an important feature of the present invention.

An attempt to operate the machine fraudulently by depressing the operating-lever 36 without depositing a coin will be defeated, as in such case the stem 39 of the plunger-arm 38 would merely pass through the holes of the coin retainer or support without carrying such retainer or support to the advanced position, which is necessary in order to operate

the discharge-roller or ejector. An attempt to operate the machine by an iron or steel disk of the diameter and thickness of a coin will be prevented by the disk being stopped in the cradle or retainer and held by the magnet, so that with the advance of the plunger-arm the stem 40 thereof will act and move the caught disk back in the coin receiver or cradle and into the runway at the receiving end thereof. A non-magnetic washer or disk having a hole in it would not operate the coin-controlled mechanism, as in such case the washer or disk if caught in the coin retainer or support would have its hole in line for the passage therethrough of the stem 39, and with the withdrawal of the stem 39 the washer would drop from the coin retainer or support, which would be moved sufficiently for the edge of the washer to clear the stop, allowing the washer to drop without actuating the coin-controlled mechanism.

The construction shown in Figs. 1 and 2 illustrates an arrangement for discharging the package toward the rear of the machine instead of toward the front, as in the construction and arrangement of Figs. 5 and 6. The operating-lever 36 in the construction of Figs. 1 and 2 is mounted directly upon the rocking shaft 28, which shaft carries arms 65, connected with a carriage 66, in which carriage is pivotally supported a frame 66^a, on which is an extension 66^b, having an upward rise and serving as an ejector for the package. The shaft 28 has fixedly secured thereto arms 67, having at their upper ends a coin receiver or cradle 68 with a slot or discharge end 69, terminating in apertured semicircular extensions 70, between which a coin is deposited to be held by a coin-stop 78 in position. The bottom of the coin receiver or cradle has formed therein a longitudinal slot 71, and the receiving edge of the bottom of the receiver or cradle can be formed with a knife-edge 72 for severing a string when a coin is used with a string attached thereto in an attempt to fraudulently operate the machine.

The operating-lever 36 in the construction of Fig. 2 has an upwardly-extending arm 73 carrying a stem 74, said arm and stem constituting the plunger-arm, with the stem so located as to pass through the opening 70 in the coin-cradle and contact a coin held in the cradle to force the receiver or cradle to its advanced position essentially as in the operation of the construction shown in Figs. 5 and 6 and hereinbefore described. A magnet 46 is secured adjacent to the coin receiver or cradle 68 and operates the same as the magnet in the construction of Figs. 5 and 6. A pawl 55, having a stop end 56, as in the construction of Figs. 5 and 6, is arranged for the stop end to engage notches 75 and 76 on a bar and attached to one of the arms or standards 67 and a notch 77 on a side plate of the coin-stop 78 and hold the coin receiver or cradle and the coin-stop in their advanced position to deposit a coin, as described for the construction of Figs. 5 and 6, and the pawl 55 remains in engagement with the notches until released by the return movement or retraction of the plunger-arm 73, as in the construction of Figs. 5 and 6, by the engagement of the edge of the plunger-arm with the lateral projection of the upward extension of the pawl-arm, as described for the construction of Figs. 5 and 6.

The operation of the mod fied construction shown in Fig. 2 is substantially similar to that described for the construction of Figs. 5 and 6, except that the upward movement of the operating-lever 36 carries the plunger-arm 73 toward the depending portion of the coin receiver or cradle for the end of the stem 74 to engage the coin in the apertured extension 70 of the coin receiver or cradle for the further advance of the plunger-arm to force the coin receiver or cradle to its advanced position. The movement of the coin receiver or cradle to its advanced position causes the arms 65, mounted on the rock-shaft, to carry the ejector-carriage, with the ejector thereon, for the ejector to contact the lowermost package in the selected compartment or trough 22 and force the package onto the slideway 25 to be delivered to the purchaser. The operation of the mechanism of Fig. 2 as to ejecting a false token is essentially the same as the operation in the construction of Figs. 5 and 6, except that the plunger-arm has an upwardly-projecting portion forming a stem corresponding to the stem 40 in the construction of Figs. 5 and 6, the end of which stem passes through the slot in the bottom of the coin receiver or cradle and engages a caught token and moves such token toward the discharge end of the coin receiver or cradle, for the caught token to drop into the downward extension at the discharge end of the coin receiver or cradle and be caught by the stem 74 of the plunger-arm, which has passed through the opening 70 for the caught token to be held by the stem until the return movement of the plunger-arm, when the caught token will drop from the retainer of the coin receiver or cradle into a slideway 80, which deposit is attained by the coin-stop having passed to an advanced position, where it will not engage the periphery of a descending coin or token, allowing such coin or token to drop without operating the coin-controlled mechanism.

What I regard as new, and desire to secure by Letters Patent, is—

1. A vending-machine provided with a revoluble commodity-carrier and a spring-actuated combined centering and discharging device therefor, substantially as described.

2. A vending-machine provided with a commodity-carrier, an actuating-lever, a rocking shaft, arms carried thereby, and a carriage attached to said arms, a frame

mounted in said carriage and a discharging device in such frame, substantially as described.

3. In a vending-machine, a revoluble commodity-carrier, an ejector located in coöperative relation to the carrier for discharging packages from the carrier, a carriage on which the ejector is mounted, and a swinging support for the carriage, substantially as described.

4. In a vending-machine provided with a revoluble commodity-carrier, an ejector located in coöperative relation to the carrier for discharging packages from the carrier, a carriage, a pivoted frame on the carriage and supporting the ejector and a swinging support for the carriage, substantially as described.

5. In a vending-machine, a revoluble commodity-carrier, an ejector located in coöperative relation to the carrier for discharging packages from the carrier, a carriage on which the ejector is horizontally and yieldably mounted, and a swinging vertical support for the carriage, substantially as described.

6. In a vending-machine, a revoluble commodity-carrier, an ejector located in coöperative relation to the carrier for discharging packages from the carrier, a carriage on which the ejector is yieldably mounted, swinging arms one for each corner of the carriage and pivotally connected at their upper ends to the carriage, and means for oscillating the swinging arms to advance and recede the ejector, substantially as described.

7. In a vending-machine, a revoluble commodity-carrier, an ejector located in coöperative relation to the carrier for discharging packages from the carrier, a carriage on which the ejector is yieldably mounted, swinging arms one for each corner of the carriage and pivotally connected at their upper ends to the carriage, a rock-shaft on which two of the swinging arms are fixedly mounted, and means for rocking the shaft, substantially as described.

8. In a vending-machine, a revoluble commodity-carrier, an ejector located in coöperative relation to the carrier for discharging packages from the carrier, a carriage on which the ejector is yieldably mounted, swinging arms one for each corner of the carriage and pivotally connected at their upper ends to the carriage, a rock-shaft on which two of the swinging arms are fixedly mounted, an actuating-lever for rocking the shaft and a locking and releasing mechanism for the shaft, substantially as described.

9. In a vending-machine, a revoluble commodity-carrier, an ejector located in coöperative relation to the carrier for discharging packages from the carrier, a pivotally-supported frame carrying the ejector, and a swinging support for the frame, substantially as described.

10. In a vending-machine, the combination of a revoluble vertical goods-carrier, and a delivery mechanism having an ejector-roller located at its top and beneath the revoluble vertical goods-carrier, substantially as described.

11. A vending-machine provided with a casing composed of a separable front section, a separable cover and a separable back, all of the separable sections interlocking one with the other and when in position held in place when the back is secured in position, substantially as described.

12. A vending-machine provided with a casing composed of a plurality of separable parts each whereof slidably engages the other, and a support engaging the top and when locked thereto retaining the other portions in position, substantially as described.

13. A vending-machine having a casing provided with guideways, a movable portion of the casing having guides to enter said guideways, a top having a flange to engage said parts, and a support to be locked to said top to retain the other portions in position, substantially as described.

14. In a vending-machine provided with a casing having body portions constructed to slidably engage each other, a sliding cover engaging the body portions, a support engaging with the body portions and adapted to be locked to the cover and retain the several parts of the casing in position, substantially as described.

15. In a vending-machine, a casing consisting of a fixed base-section having at its rear side upwardly-extending strips, a removable front section, means for interlocking the front section at its rear end with the strips of the base-section, a cover-section, and means for interlocking the cover-section with the strips of the base-section and the front section, substantially as described.

16. In a vending-machine, a casing consisting of a fixed base-section having at its rear side upwardly-extending strips, a removable front section, means for interlocking the front section at its rear end with the strips of the base-section, a cover-section, means for interlocking the cover-section with the strips of the base-section and the front section, and a sliding backing adapted to interlock with the cover, substantially as described.

17. In a vending-machine, a casing consisting of a fixed base-section having at its rear on each side upwardly-extending strips, each strip having a vertical groove on its interior, a removable front section having at the rear of each side wall thereof a vertical bar to enter and engage with the vertical groove of the adjacent strip of the base-section, an out-

wardly-projecting flange at the upper end of the front section and the strips of the base-section, and a cover having around its periphery a groove to receive the flange of the front section and of the strips of the base-section, for interlocking the parts when the cover is in place, substantially as described.

18. In a vending-machine, a casing consisting of a fixed base-section having at its rear on each side upwardly-extending strips, each strip having a vertical groove on its interior, a removable front section having at the rear of each side wall thereof a vertical bar to enter and engage with the vertical groove of the adjacent strip of the base-section, an outwardly-projecting flange at the upper end of the front section and the strips of the base-section, and a cover having around its periphery a groove to receive the flange of the front section and of the strips of the base-section, and having at its rear side a hole for interlocking the parts when the cover is in place, a sliding backing, grooves at the rear edges of the strips of the base-section and receiving the sliding backing and a hasp carried by the sliding back and passing through the hole at the rear of the cover for locking the cover in place, substantially as described.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, at Los Angeles, in the county of Los Angeles, State of California, this 11th day of April, 1903.

JOHN E. PACKARD.

Witnesses:
JOHN SATTERWHITE,
MIGNON FORD.