Aug. 27, 1929. P. L. ORMISTON 1,725,965

APPARATUS FOR DISPENSING GLOBULAR ARTICLES

Filed April 4, 1927 6 Sheets-Sheet 1

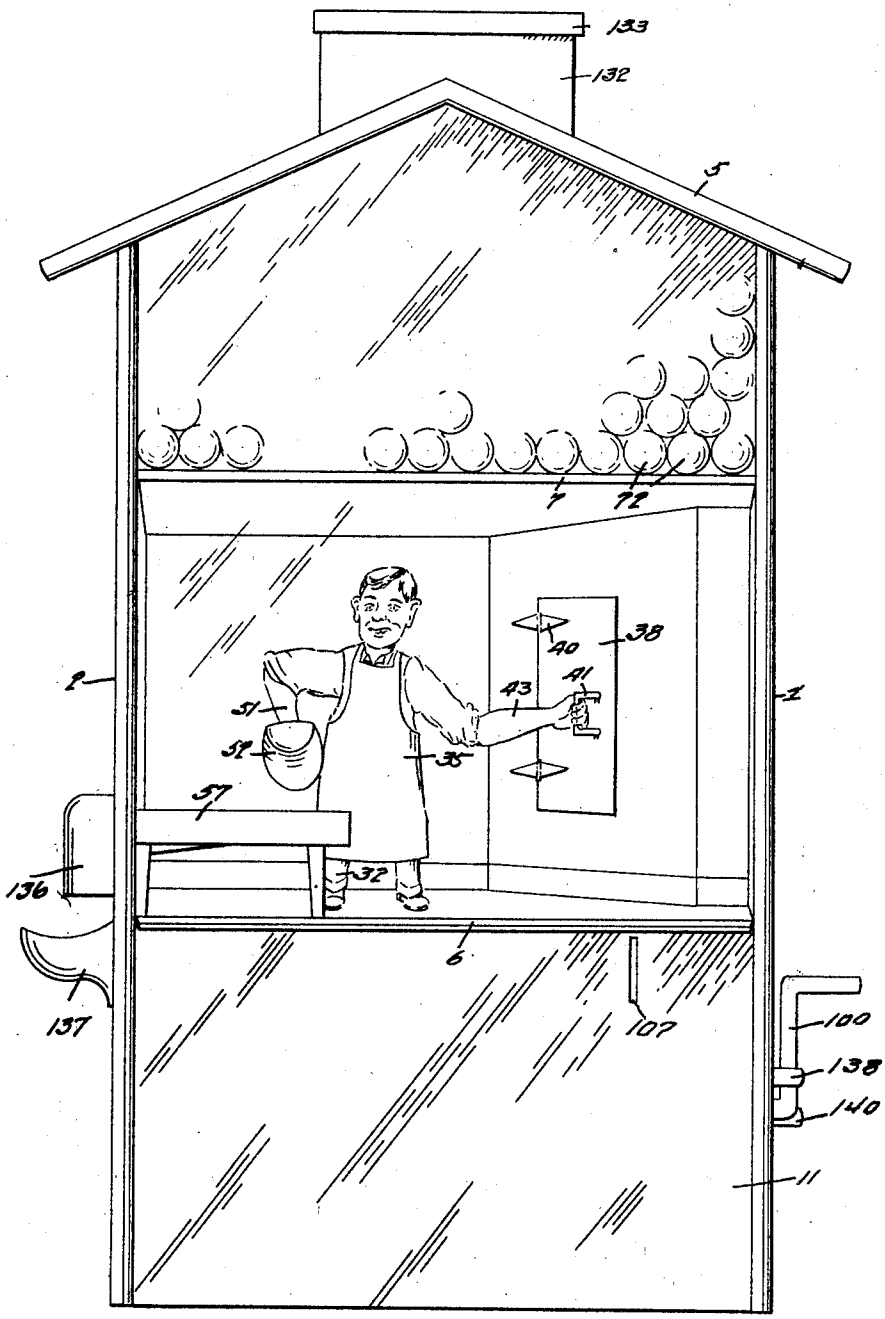


Fig. 1.

Perley L. Ormiston,
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BY Horace Barnes,

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APPARATUS FOR DISPENSING GLOBULAR ARTICLES

Filed April 4, 1927 6 Sheets-Sheet 2

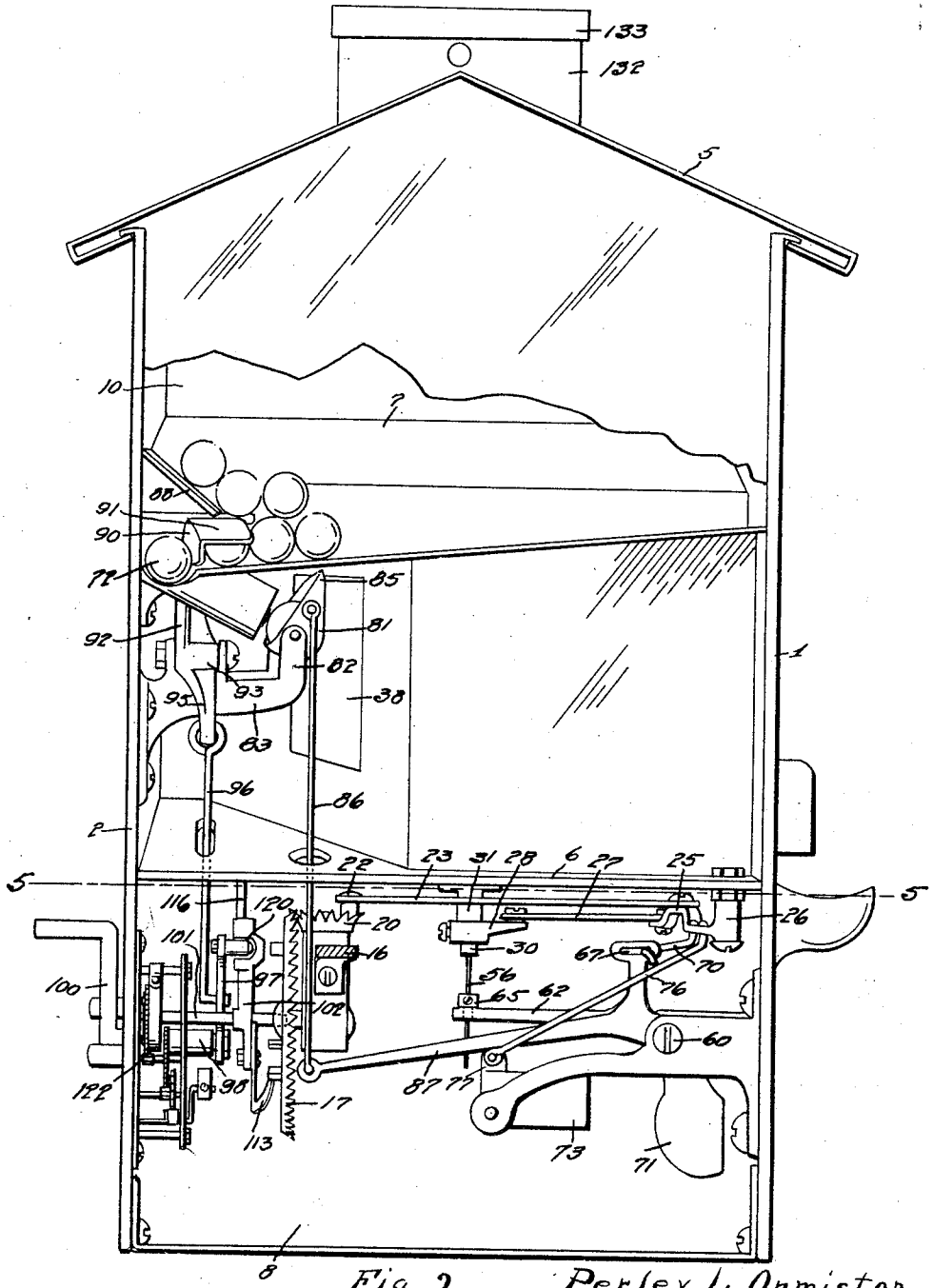


Fig. 2.

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APPARATUS FOR DISPENSING GLOBULAR ARTICLES

Filed April 4, 1927 6 Sheets-Sheet 3

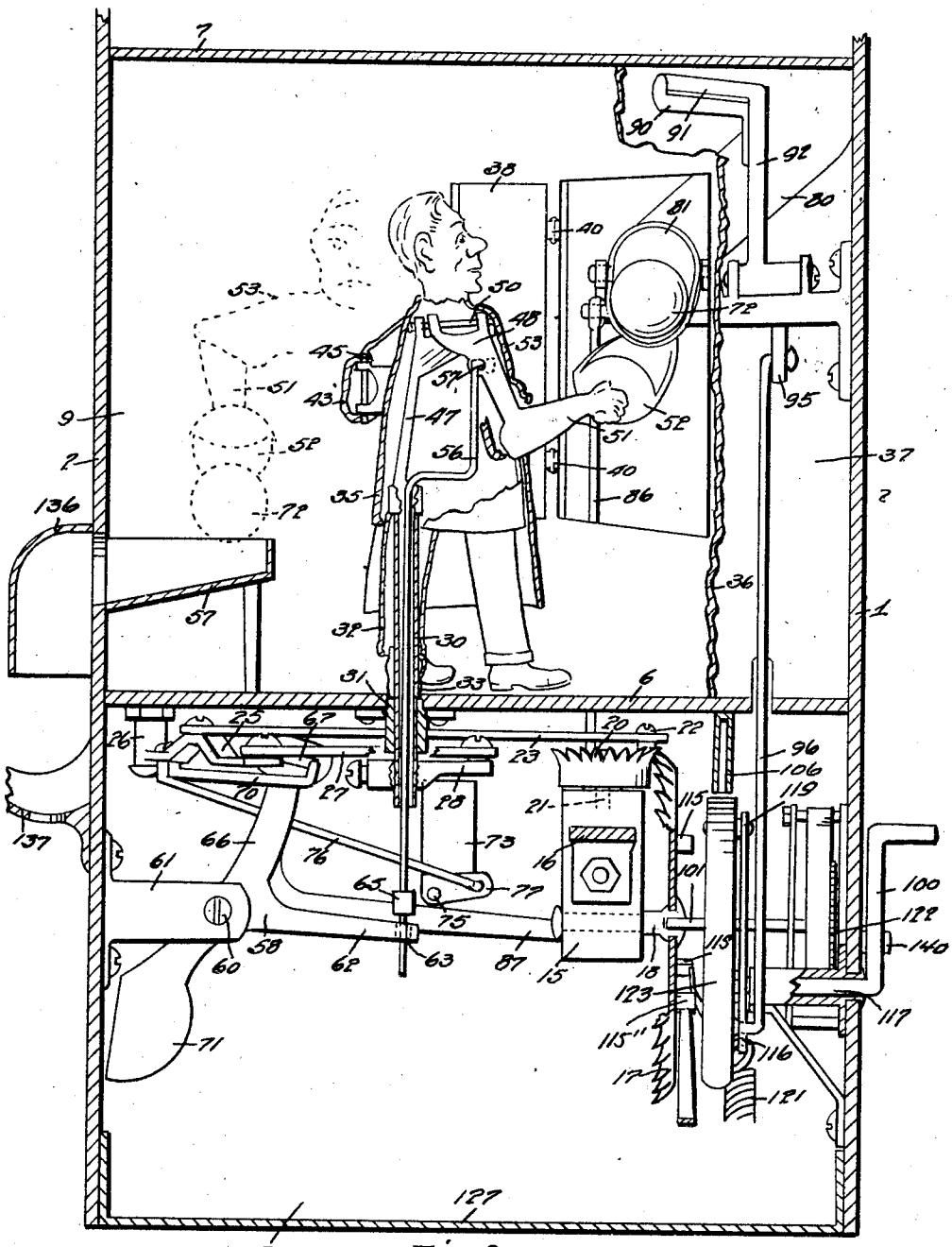


Fig. 3.

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INVENTOR

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Aug. 27, 1929. P. L. ORMISTON 1,725,965

APPARATUS FOR DISPENSING GLOBULAR ARTICLES

Filed April 4, 1927 6 Sheets-Sheet 4

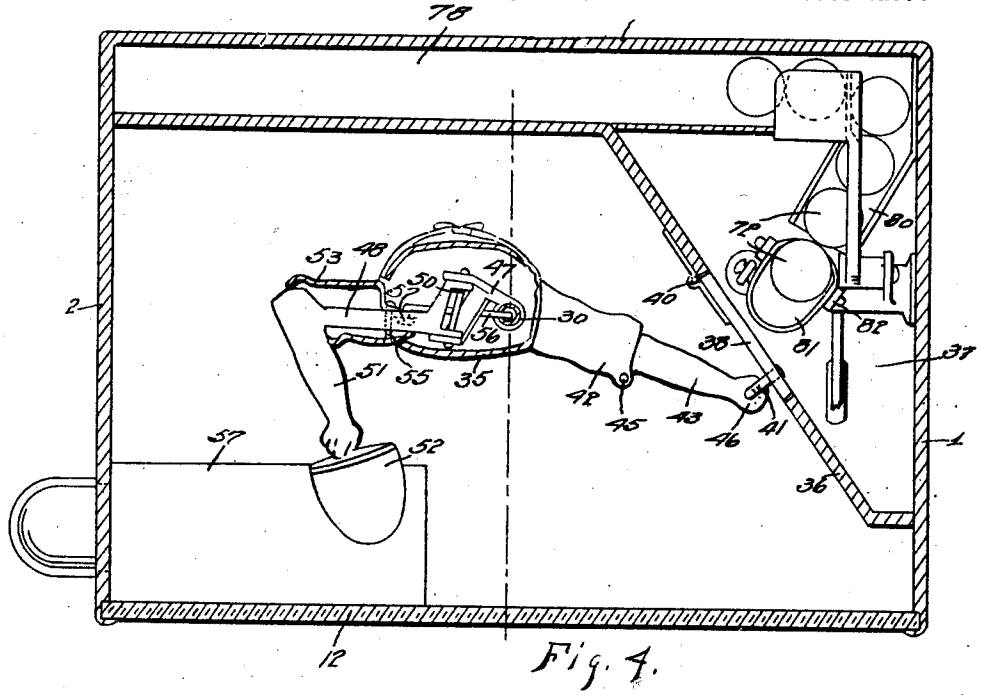


Fig. 4.

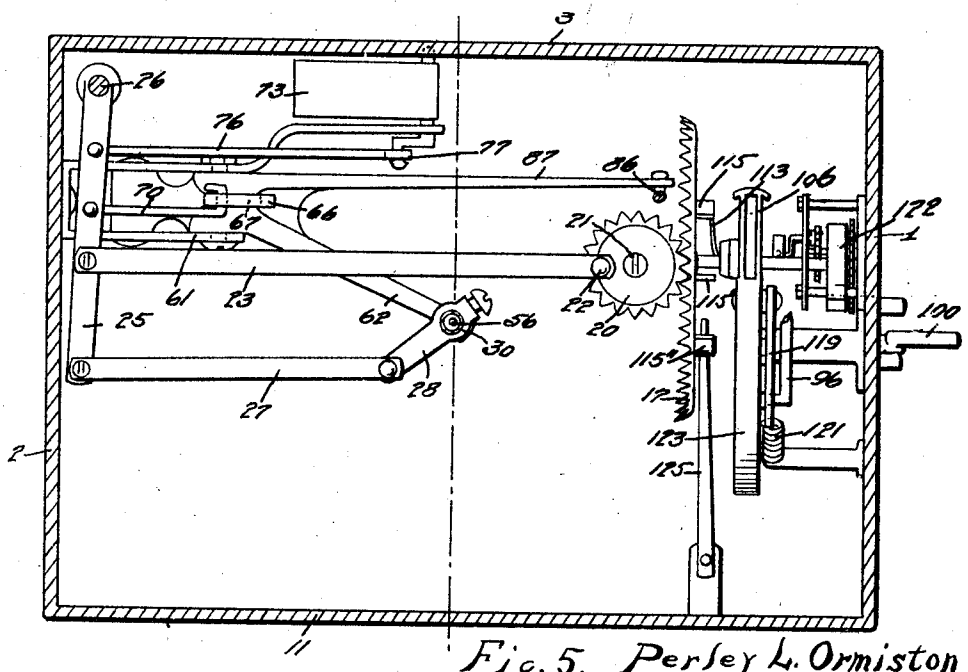


Fig. 5.

Persey L. Ormiston
INVENTOR

BY Howard Barnes.

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Aug. 27, 1929. P. L. ORMISTON 1,725,965

APPARATUS FOR DISPENSING GLOBULAR ARTICLES

Filed April 4, 1927 6 Sheets-Sheet 5

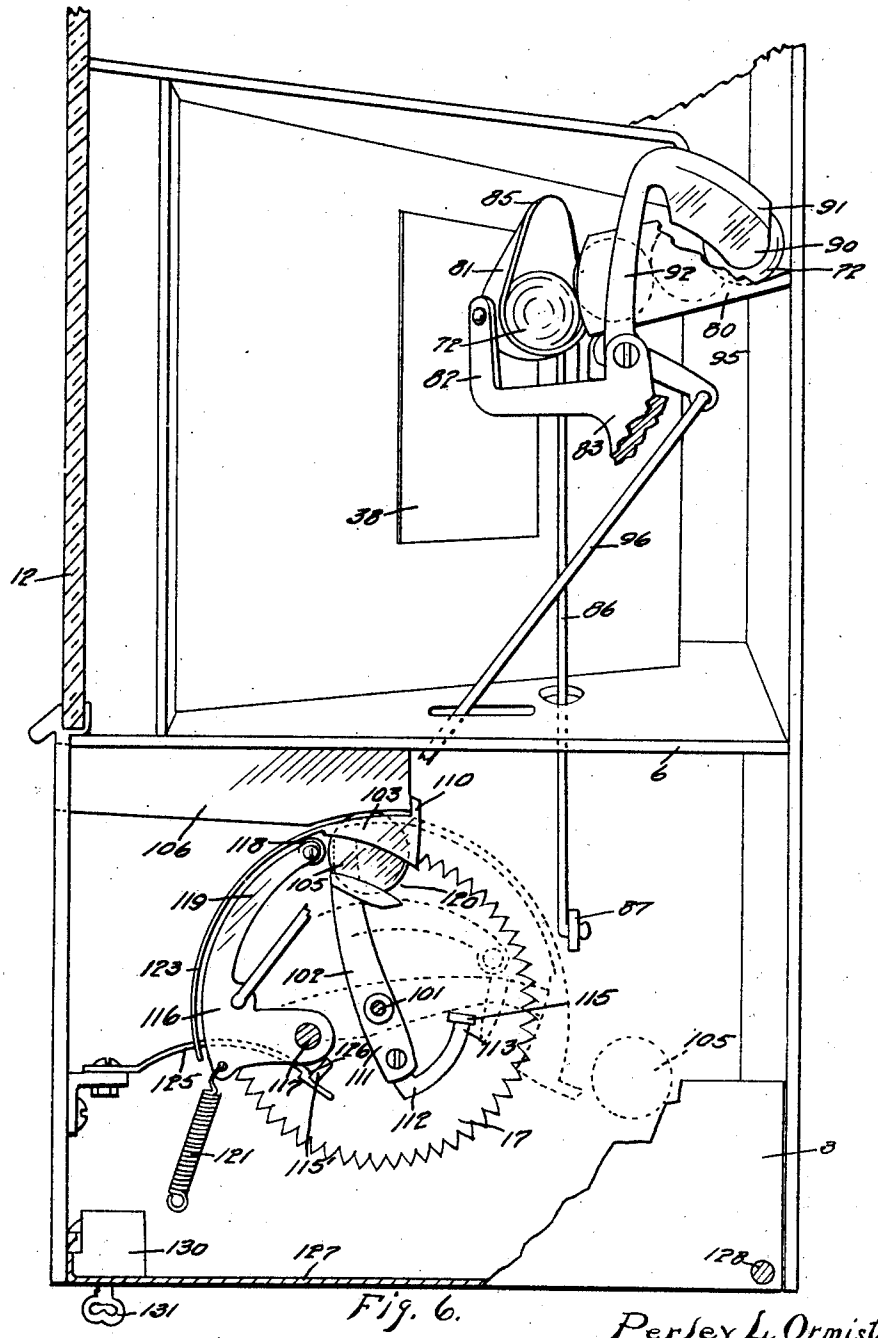


Fig. 6.

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Aug. 27, 1929. P. L. ORMISTON 1,725,965

APPARATUS FOR DISPENSING GLOBULAR ARTICLES

Filed April 4, 1927 6 Sheets-Sheet 6

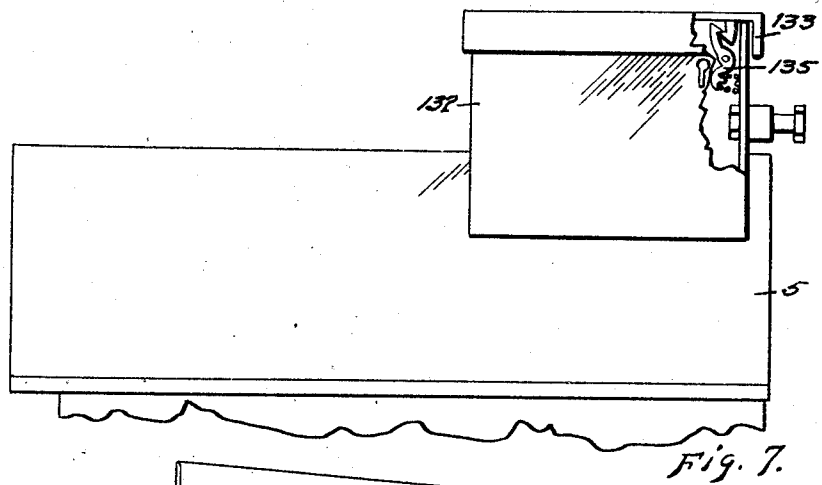


Fig. 7.

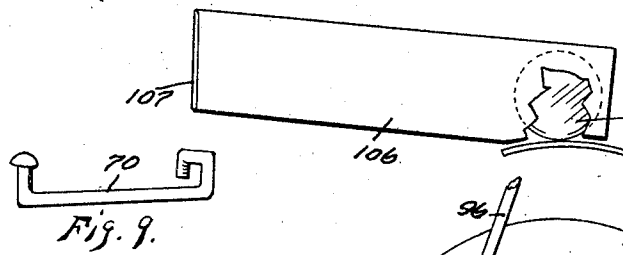


Fig. 9.

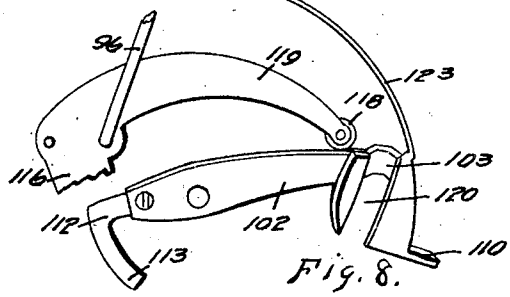


Fig. 8.

Fig. 10.

Fig. 11.

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INVENTOR
BY Horace Burns.
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Patented Aug. 27, 1929. 1,725,965

UNITED STATES PATENT OFFICE.

PERLEY L. ORMISTON, OF PORTLAND, OREGON.

APPARATUS FOR DISPENSING GLOBULAR ARTICLES.

Application filed April 4, 1927. Serial No. 180,814.

This invention relates to improvements in coin-operated dispensing apparatus.

The principal object of my invention is the provision of relatively simple devices for dispensing articles for sale through the intermediary of an automaton figure or mannikin.

It is found that articles of especial appeal to children, such as candy-coated chewing gum balls, which are at the present time commonly exposed for sale in public places in coin-operated dispensing containers, may be more liberally patronized if accompanied by some spectacular display as is afforded by the provision of an automatically moving mannikin as an element or link in the delivery of the article purchased. In the present invention, after the deposit of the coin and the manipulation of the operating lever by the customer, the mechanism of the invention is set in motion to actuate the mannikin to move about on a pivot extending through one of its legs and thereby opening a door in the adjacent wall through one of its arms being connected to the door. The further movements of the mannikin swing the other arm holding a scoop through the open doorway to receive a gum ball that is caused to be deposited therein, whereupon the mannikin is actuated reversely to close the door and release the gum ball in the scoop into a delivery chute accessible to the customer.

Other objects and advantages of my invention, and objects relating to details of construction of the actuating mechanism and accessory parts, will be readily apparent in the course of a detailed description to follow.

The accompanying drawings illustrate by way of example a preferred form in which my invention may be embodied, wherein:

Figure 1 is a view in front elevation of automatic dispensing apparatus embodying my invention.

Fig. 2 is a view in rear elevation of the same with a portion of the rear wall broken away.

Fig. 3 is a view in vertical section through the automaton and certain portions of the actuating apparatus, other parts being shown in front elevation.

Fig. 4 is a view in horizontal section through the automaton showing other portions of the apparatus in plan.

Fig. 5 is a view in horizontal section on line 5—5 of Fig. 2.

Fig. 6 is a view of the apparatus in side elevation with the right-hand wall of the casing removed.

Fig. 7 is a view of the upper portion of the casing with portions broken away to disclose the means for locking the lid for the entry of the objects to be dispensed.

Fig. 8 is a fragmentary view, detached, of the coin operating devices.

Figs. 9, 10, and 11 are detached views of elements of the invention.

Referring to said views, the reference numerals 1 and 2 indicate, respectively, the right and left hand walls of a suitable container, and 3 designates the rear wall thereof. Said container, as shown, is rectangular and represents a building in miniature, in which the upper wall 5 thereof represents a conventional roof, and within which horizontally disposed partitions or floors 6 and 7 divide the interior of the casing into superposed compartments 8, 9, and 10. The lowermost compartment 8, in which the larger part of the machinery is housed, is provided with a front wall 11 of sheet metal. The intermediate compartment 9 and the upper compartment 10 are enclosed on their front face by a sheet of glass 12, through which the interior of said compartments may be seen from the front of the container.

A bolster block 15 is rigidly supported in the compartment 8 from the under side of the partition 6 by means of inclined brackets 16. A crown gear 17 is provided with a hub 18 extending horizontally and rotatably journaled in the lower end of the block 15. A crown pinion 20 is rotatably supported on its vertically disposed axis 21 in the upper end of said block and with whose teeth the teeth of the gear 17 are in mesh. The number of teeth of the pinion 20 and gear 17 are in predetermined ratio to cause a certain number of revolutions of the pinion with each complete revolution of the gear, or, as in the present case, to cause a complete revolution of the pinion upon a controlled fractional revoluton of the gear, which in the instance of the present example is one-third of a complete revolution.

A crank pin 22 extends upwardly from the outer margin of the pinion 20 with which a connecting rod 23 is pivotally engaged. The opposite end of the rod 23 is similarly connected intermediate the ends of the lever 25 which is pivoted at one of its extremities to a pin 26 extending downwardly from the partition 6. At the outer end of the lever 25 a bar 27 is pivotally connected whose opposite end is similarly connected to a crank arm 28 which is pinned to a vertically dis-

posed tubular shaft 30 extending through the floor partition 6 into the compartment 9 and journaled for partial rotation in a sleeve 31 secured in said floor. Said tubular shaft extends upwardly through the leg 32 of a mannikin figure or automaton mounted erect substantially central of the compartment 9, the heel 33 of the mannikin being rigidly secured to the shaft 30 and serving as a bearing therefor on the sleeve 31. The body 35 and legs of the mannikin are of sheet metal and are secured to the shaft 30 to oscillate therewith through an arc of approximately 90°, as controlled by the push and pull of the bar 27 upon the arm 28, causing the mannikin figure to pivot about from a full-face position facing the glass front of the compartment 9 to a quartering position where it is facing the side 1 of the container and offering a side view thereof to observers through the glass front and thence returning to its original full-face position. This movement of the mannikin is caused by complete revolution of the pinion 20 actuated by the gear 17 which is caused to rotate through an arc of one-third of its circumference through the action of coin-actuated devices to be presently described.

Upon the right-hand side of the compartment 9 a diagonally disposed partition 36 extends enclosing a compartment 37 in which the delivery mechanism for supply of the gum-balls or other suitable articles is installed. In said partition a door 38 is provided mounted upon hinges 40 at its rear edge and at its forward edge having a handle 41. The upper portion 42 of the left arm of the mannikin is rigidly connected to the body 35, to which a forearm portion 43 is hingedly connected at 45, providing an elbow joint. The representation of a hand 46 on said forearm is loosely connected to the handle 41. In this manner, when the mannikin swings toward the partition 36, its arm connection with the door will cause the door to open, exposing said delivery mechanism, and upon the reverse movement of the mannikin back to its original facing position the door will be swung to shut position, as indicated in Figs. 1 and 4.

Rigidly mounted upon the upper end of the tubular shaft 30 is a standard 47 extending upwardly within the body of the mannikin, at the upper end of which a lever 48 is hingedly mounted, as at 50, affording what would be termed the shoulder joint of the right arm of the mannikin. The said lever is formed at its outer extremity, as at 51, to represent the right forearm of the mannikin, to whose hand a scoop 52 is secured. The upper portion of the arm is represented by a tubular sleeve 53 which is supported by a pivot bearing 55 to the lever 48 and is movable within an armhole in the mannikin body, so that said sleeve will partake of the movements of the lever. 56 indicates a rod extending through the tubular shaft 30 and at its upper end socketed, as at 57, in the lever 48 slightly below the hinged joint 50. The forearm portion 51 of the lever 48, together with the scoop 52, which is in a straight line therewith, are approximately at right angles to the upper portion of the lever 48, and the weight thereof, together with the suspended weight thereon of the rod 56, normally causes the angle portion of the lever, or elbow, to dip downwardly slightly to elevate the scoop extremity thereof, so that the scoop will be raised at its outer end sufficiently to receive and retain a round object, such as a gum ball. This is accomplished by the slightly askew relation of the hinged joint 50.

At the termination of the return movement of the mannikin, when the latter is facing the front of the casing and the scoop has reached a position overlying a delivery trough 57, the rod 56 is pushed upwardly, causing the elbow of the mannikin to be lifted slightly and tilt the scoop downwardly over the trough 57 to deposit the gum ball therein, as indicated in broken lines in Fig. 3. The lifting of the rod 56 is accomplished by means of a bell crank 58 pivoted at 60 to a bracket 61. An arm 62 in said bell crank is apertured at its outer end, through which the lower portion of the rod 56 extends, as at 63. A set collar 65 is rigidly secured to the push rod above the arm end 62, to be engaged thereby to lift the push rod. Another arm 66 of the bell crank 58 extends upwardly and is formed at its upper extremity with a horizontally disposed slot 67, within which the hooked end 68 of a rod 70 extends, whose other end is pivotally connected through the lever 25. In this manner, in the initial vibratile movements of the lever 25, as controlled through the rotation of the crown pinion 20, the rod 70 is pushed longitudinally, and its hooked end 68 departs from the left-hand side of the slot 67 to release the bell crank 58. A weight 71 depending from the lower portion of the bell crank, however, balances the bell crank to maintain it in about the same position, while the hooked end of the rod 70 travels in the slot 67 until the scoop of the mannikin figure approaches the opened doorway in the partition 36, whereupon the hooked end 68 engages the outer end of the slot 67 to lower the bell crank 62 from beneath the collar 65 and allows the gravity of the lever 48 and rod 56 to assert itself, lowering the lever arm 48 and slightly elevating the scoop end 52 to receive the gum ball 72, at the termination of its travels with the mannikin.

On the reverse movement of the lever 25 the hooked end 68 travels idly in the slot 67 as the mannikin swings around to its front position and at the termination of its travel the left-hand end of the slot is engaged by the

hooked end to raise the crank arm 62 and tilt the elbow of the mannikin upwardly to deposit the gum ball into the trough 57. To insure a relatively even tension and smooth and even action upon the lever 25 a weight 73 is pivotally mounted at 75 to the casing, and a rod 76 is connected to the lever 25 at one end adjacent its pivot 26, while its opposite end is connected to a crank 77 on the pivot 75. Thus said weight is actuated from a horizontal position, as indicated in Fig. 2, wherein the gravity thereof is exerted upon the lever 25 to maintain the apparatus and the mannikin in relatively stationary condition, and, when the mannikin is being turned by the vibratile movements of the lever 25, the weight is swung upwardly over its pivot, as indicated in Fig. 3, and then backwardly to its original position.

The floor 7 of the container slopes rearwardly so that the balls 72 contained in the compartment 10 will gravitate rearwardly into a trough 78 of width to receive the balls in single file. Said trough extends the full width of the casing and slopes toward the right-hand wall 1 thereof, and there leads into a chute 80 of length to receive two or three of the balls and which is directed downwardly at a somewhat steeper incline than the trough into the compartment 37. At the lower extremity of said chute a delivery pan 81 is pivotally mounted in the branched arms 82 of a bracket 83 to receive a ball from said chute. Said pan is pivotally mounted to rock toward the door opening in the partition 36 and is formed with a spout end 85 directed toward such doorway. The spout end is usually lifted, as indicated in Fig. 2, under control of a bar link 86 pivotally connected to the pan forwardly of its pivotal connections on the branches 82 and which bar link extends downwardly through the partition wall 6 into the compartment 8, where it is connected to a lever arm 87 integral with the bell crank 58. Thus the vibratile movements of the bell crank arm 62, as described, will be duplicated by the arm 87, so that the pan 81 will be tilted downwardly and returned in synchronism with the movements of the mannikin and particularly of its scoop lever 48.

Thus at the approach of the termination of the advance swinging movement of the mannikin and when the arm 62 is dropped to remove its support of the lever 48, where the scoop 52 is positioned to receive a ball, the same final downward movement of the bell crank causes the arm 87 to pull down upon the pan 81 to deliver a ball therefrom into the scoop ready to receive it. While the pan is thus tilted, the rear edge of the pan is raised upwardly to close the open end of the chute 80, so that the balls therein will not be released until the pan is again tilted upward in the reverse movement of the mannikin and the empty cavity of the pan is presented to the open end of the chute, whereupon a ball will descend therein ready for the next operation.

Over the point of juncture of the trough 78 and the chute 80 an inclined shelf 88 is fixed guarding the chute from the balls dropping thereinto from the compartment 10. Below said shelf is a cut-off device formed with a downwardly directed flange 90 admitting of a single ball between it and the adjacent wall 1 at the head of the chute and cutting off the balls lying in the trough 78. A rectangularly directed plate 91 is connected to said flange of sufficient width to receive a ball thereunder and which will be in position to move into the chute at the next operation of the machine. Said cut-off device is mounted upon an arm 92 of a bell crank which is pivoted at 93 in the bracket 83. The other arm 95 of said bell crank makes connection with a rod 96 whose other end is connected to a lever 97 connected to a shaft 98 operative by a crank handle 100 extending exteriorly of the casing and which is actuated by the operator to operate the machine upon the dropping of a coin, as will be presently described.

Said crank handle 100 and the vibratile movements of the cut-off device may be performed regardless of whether a coin is inserted in the machine or not, but at each actuation thereof the bell crank to whose upper arm 92 the cut-off device is connected is vibrated and the flange 90 is withdrawn by the rearward movements of the crank handle 100, and, when the latter is released and is returned by its spring control, as will be hereafter described, the cut-off device moves rearwardly and separates the balls in the trough from that at the head of the chute, thus agitating more or less the balls in the chute and those thereabove. At each withdrawal of the cut-off device, providing a ball has been fed out of the chute by the delivery device, a new ball is allowed to drop at the head of the chute, thus maintaining the chute to its full capacity of three or four balls in readiness for delivery.

The coin-controlled actuating devices for the mechanism just described may be briefly explained as follows: A shaft 101 is journaled at one end in axial alignment in the hub 18 of the gear wheel of the crown gear 17, and its other end is similarly mounted in the casing wall 1. A bar 102 is keyed on said shaft to oscillate in a plane parallel with said crown gear. The upper end of the bar 102 is formed in a slotted receptacle 103 for a coin 105 which may be deposited therein through a chute 106 extending from the front of the casing and appearing as a slot 107 in the front wall 11. The lower portion of the slot extending through the chute 106 is inclined downwardly and is cut away at its

outer end, as at 108, overlying the receptacle 103, so that a coin entering the slot 107 will roll downwardly through the chute and be deposited in the receptacle 103. A stop 110 engages the end of the chute and limits the movements of the bar 102 toward the front of the casing. The bar 102 extends upon the opposite side of the shaft 101, as at 111, where a spring metal dog 112 is secured, whose bill end 113 is formed of arcuate configuration, having the shaft 101 as its axis, and which bill end is deflected laterally toward the crown gear 17.

Beyond the plane of a plurality of evenly spaced lugs 115, 115′, and 115″, extending from the outer side of said crown gear, said lugs, in this instance three in number, are evenly spaced apart and are in turn engaged by the bill end 113 in the actuation of the mechanism, as will be more fully explained. A dog 116 is keyed to the shaft 117 pertaining to the crank handle 100 and extends in curved directions in an arm 119 to a point adjacent the coin receptacle 103, where a roller 118 is rotatably mounted at its extremity. Said coin receptacle is formed with one of its sides cut away, as at 120, in the vibratile path of the roller 118, so that in the swinging movements of the dog 116 the roller will impinge upon the coin 105 seated in the coin receptacle and cause the bar 102 to swing rearwardly with the actuating dog. The dog 116 is yieldingly retained in its forward inoperative position through a coil spring 121. When a coin is not present in the receptacle 103, the crank handle may be actuated to cause the dog 116 to oscillate forwardly, passing through the opening 120 without disturbing the bar 102. When a coin of proper size, such as a penny, is entered in the chute 106 and drops into the receptacle 103, the actuation of the crank handle causes the dog 116 to swing rearwardly, and the roller engages the coin to vibrate the bar 102 and partially rotate the shaft 101 rearwardly, whereupon the dog 113 swings forwardly until its bill end passes beyond the lug 115′, when the spring deflection of the same causes it to spring behind said lug in position to actuate the crown gear 17. Said rearward motion of the bar 102 and shaft 101 causes the winding of a spring motor 122 which, upon the release of the crank handle, actuates the shaft 101 and causes the crown gear to rotate one-third of a revolution by the engagement of the bill end 113 with the lug 115′. Each operation of the bar 102 causes the crown gear to advance a third of a complete rotation and actuates the crown pinion 20 one complete revolution, causing the mannikin mechanism to perform a complete cycle.

The shafts 101 and 117 are offset with relation to each other, so that the roller 118 will engage the coin in the initial movements of the bar 102 and then will press against the portion of said bar below the coin receptacle, freeing the coin from pressure. At or about the time when the bar 17 has reached the forward extremity of its travel, as indicated in broken lines in Fig. 6, the receptacle will have reached a point where the coin will roll out by gravity, which position is at or about the point where the bill end 113 will engage the actuating lug 115′. A shield 123 is connected to the bar 102 and extending rearwardly in an arc to close the slot 108 from the interposition of a coin until after the bar and coin receptacle thereon has returned to its normal inoperative position. Such function of said shield is illustrated in Fig. 8. A spring guard 125 is secured at one end to a casing wall extending rearwardly, having at its rearward extremity a stop portion 126 which is adapted to resiliently engage the lugs as they are moved to position and prevent any backward movement of the crown gear 17. The coins as they are deposited from the coin receptacle 103 fall into the bottom of the compartment 8 upon a floor 127 which is hinged at 128 at the rear of the casing. A locking device 130 is provided at the forward edge of said floor so that the money receipts from the apparatus may be safeguarded and removed by means of a key 131. The casing being formed in the semblance of a building a supply chute 132 may be provided in the roof thereof formed to represent a chimney, which is provided with a hinged lid 133 provided with locking means 135.

The balls to be dispensed are placed in the compartment 10 to fill the same and can be observed through the glass front of said compartment. After coins are deposited in the slot 107 the handle 100 may be actuated to energize the mechanism controlling the mannikin figure and the balls of gum or other commodities will be deposited from the delivery mechanism into the trough 57 and thence rolled by gravity into a hooded chute 136 to drop into a delivery tray 137, where they may be taken by the purchaser. The crank handle 100 is provided with a stop 138 against which the handle rests in its inoperative position through the function of the spring 121. A stop 140 is provided to the rear of said handle which limits the throw of the latter in rearward directions.

Having described my invention, what I claim, is:

1. In dispensing apparatus, a casing having superposed compartments, the upper of said compartments affording a receptacle for balls, said receptacle compartment having a sloping floor, an inclined trough upon the lower side of said floor in which said balls are held in single file, a chute to receive the balls from said trough, and a pan pivoted at the lower extremity of the chute adapted to receive a single ball from said chute and to close

the lower end of the chute, said pan being tiltable to discharge the ball therein and to restrain the forward movements of the balls in the chute.

2. In dispensing apparatus, a casing having superposed compartments, the upper of said compartments affording a receptacle for balls, said receptacle compartment having a sloping floor, an inclined trough upon the lower side of said floor in which said balls are held in single file, a chute to receive the balls from said trough, a pan at the lower extremity of said chute adapted to receive a single ball from said chute and to close the lower end of the chute, said pan being tiltable to discharge the ball therein and to restrain the forward movement of balls in the chute, and means for actuating said pan to discharge a ball at each forward tilting movement and to receive a ball when rocked rearwardly.

3. In dispensing apparatus, a casing having a plurality of compartments in superposed relation, a floor between two of said compartments, a tubular shaft extending through said floor and journaled for oscillation, a figure secured to said shaft, an arm hingedly mounted in said figure, means to oscillate said shaft and figure, and means to actuate said arm in unison with the oscillating movements of the figure.

4. In dispensing apparatus, a tubular shaft journaled for oscillation, a figure mounted on said shaft to move therewith, spring-actuated means to oscillate said shaft and figure, an arm hingedly mounted in said figure having a holder at its outer end, a rod connected to said arm extending through said shaft, and means operative with said shaft-oscillating means to actuate said rod to tilt said arm and holder.

5. In dispensing apparatus, a tubular shaft journaled for oscillation, a figure mounted on said shaft to move therewith, spring-actuated means to oscillate said shaft and figure, an arm hingedly mounted in said figure having a holder at its outer end, a rod connected to said arm extending through said shaft, means operative with said shaft-oscillating means to actuate said rod to tilt said arm and holder, another arm on said figure having a hinge joint therein, and a hingedly mounted door to which said last-named arm is connected to open and close in the movements of said figure.

6. In dispensing apparatus, a casing having three compartments in superposed relation, a tubular shaft extending from the lower said compartment into the compartment thereabove and journaled for oscillation in the floor therebetween, a figure having a leg through which said shaft extends, an arm pivotally connected within said figure, a rod connected to said arm and extending through said shaft, the gravity of said arm and rod causing the outer end of the arm to be elevated, means in said lower compartment to oscillate said shaft and figure, and means operative in synchronism with said oscillating means to elevate said rod and thereby tilt the outer end of said arm downwardly.

7. In dispensing apparatus, a casing, having a plurality of compartments in superposed relation, the upper of said compartments affording a receptacle for balls, an intermediate compartment provided with a partition, a door hingedly mounted in said partition, delivery mechanism including a tiltable pan positioned upon one side of said partition, an inclined chute to convey said balls from said receptacle to said delivery pan, a tubular shaft extending through the floor between said intermediate chamber and a lower compartment and journaled for oscillation therein, a figure mounted upon said shaft in said intermediate compartment upon the opposite side of said partition, an arm on said figure connected to said door, another arm on said figure having a scoop at its outer end, said arm being pivoted to raise and lower said scoop to retain or discharge a ball therefrom, means to oscillate said shaft and said figure, and means actuated by said first-named means to control the movements of said arm and to tilt said pan at predetermined stages in the movements of said figure.

8. In dispensing apparatus, a casing, having a plurality of compartments in superposed relation, the upper of said compartments affording a receptacle for balls, an intermediate compartment provided with a partition, a door hingedly mounted in said partition, delivery mechanism including a tiltable pan positioned upon one side of said partition, an inclined chute to convey said balls from said receptacle to said delivery pan, a cut-off device in said chute interposed in the path of said balls, a tubular shaft extending through the floor between said intermediate chamber and a lower compartment and journaled for oscillation therein, a figure mounted upon said shaft in said intermediate compartment upon the opposite side of said partition, an arm on said figure connected to said door, another arm on said figure having a scoop at its outer end, said arm being pivoted to raise and lower said scoop to retain or discharge a ball therefrom, means to oscillate said shaft and said figure, and means actuated by said first-named means to control the movements of said arm and to tilt said pan at predetermined stages in the movements of said figure.

9. Dispensing apparatus, consisting in a receptacle for globular articles, a chute to convey said articles in single file, a delivery mechanism, including a tiltable pan, a compartment below said receptacle divided by a partition, a door in said partition, a figure mounted for partial rotation in said compartment upon one side of said partition, means to par-

tially rotate said figure towards and away from said door, an arm on said figure to open and close said door as the figure is moved, a tiltable arm on said figure, means to tilt said arm, and means to tilt said pan in synchronism with the movements of said last-named arm.

10. In dispensing apparatus, a chamber having a partition therein affording two compartments, a hinged door in said partition, delivery devices for articles to be dispensed in one of said compartments, a pivotally mounted figure in the other of said compartments, means to actuate said figure to pivotally move toward and away from said door, an arm on said figure connected to said door to open and close the same as the figure is moved, another arm on said figure provided with a holder at its outer extremity for receiving an article from said delivery devices, and means for tilting the outer end of said last-named arm downwardly to deposit said article.

11. In dispensing apparatus, a figure pivotally mounted to oscillate upon one of its legs, said leg including a tubular shaft, means to pivotally actuate said figure, an arm hingedly connected within the figure having at its outer end a holding device, a rod extending through said shaft and connected to said arm to control the same, said arm being elevated at its outer end by the gravity of the arm and rod, and means to elevate said rod to depress the outer end of said arm during the terminal movements of the figure.

12. Dispensing apparatus consisting in a receptacle for globular articles, an inclined chute to convey said articles in single file, a tiltable delivery pan closing the end of said chute, a chamber below said receptacle having a partition thereacross, a door in said partition, a figure having a leg upon which it is pivotally mounted, an arm on said figure connected to said door, another arm on said figure movable to retain or discharge a globular article delivered in its outer end, means to pivotally move said figure toward and away from said door to open and close the same, means to actuate said last named arm, and means to actuate said delivery pan in synchronism with said arm-actuating means.

13. Dispensing apparatus consisting in a receptacle for globular articles, an inclined chute to convey said articles in single file, a tiltable delivery pan closing the end of said chute, a chamber below said receptacle, a partition dividing said chamber into two compartments, one of said compartments containing said chute and pan, a door in said partition, a figure in the other of said compartments having a leg upon which it is pivotally mounted an arm on said figure connected to said door, another arm on said figure movable to retain or discharge a globular article delivered in its outer end, means to pivotally move said figure toward and away from said door to open and close the same, means to actuate said last named arm, and means to actuate said delivery pan in synchronism with said arm-actuating means.

14. Dispensing apparatus consisting in a receptacle for globular articles, an inclined chute to convey said articles in single file, a tiltable delivery pan closing the end of said chute, a cut-off device actuated by a crank handle to control the supply of said articles to said chute, a chamber below said receptacle, a partition dividing said chamber into two compartments, one of said compartments containing said chute and pan, a door in said partition, a figure in the other of said compartments having a leg upon which it is pivotally mounted, an arm on said figure connected to said door, another arm on said figure movable to retain or discharge a globular article delivered in its outer end, means to pivotally move said figure toward and away from said door to open and close the same, means to actuate said last named arm, and means to actuate said delivery pan in synchronism with said arm-actuating means.

PERLEY L. ORMISTON.