R. H. POLLOCK.

VENDING MACHINE.

APPLICATION FILED NOV. 3, 1913. RENEWED AUG. 31, 1915

1,161,334.

Patented Nov. 23, 1915.

3 SHEETS—SHEET 1.

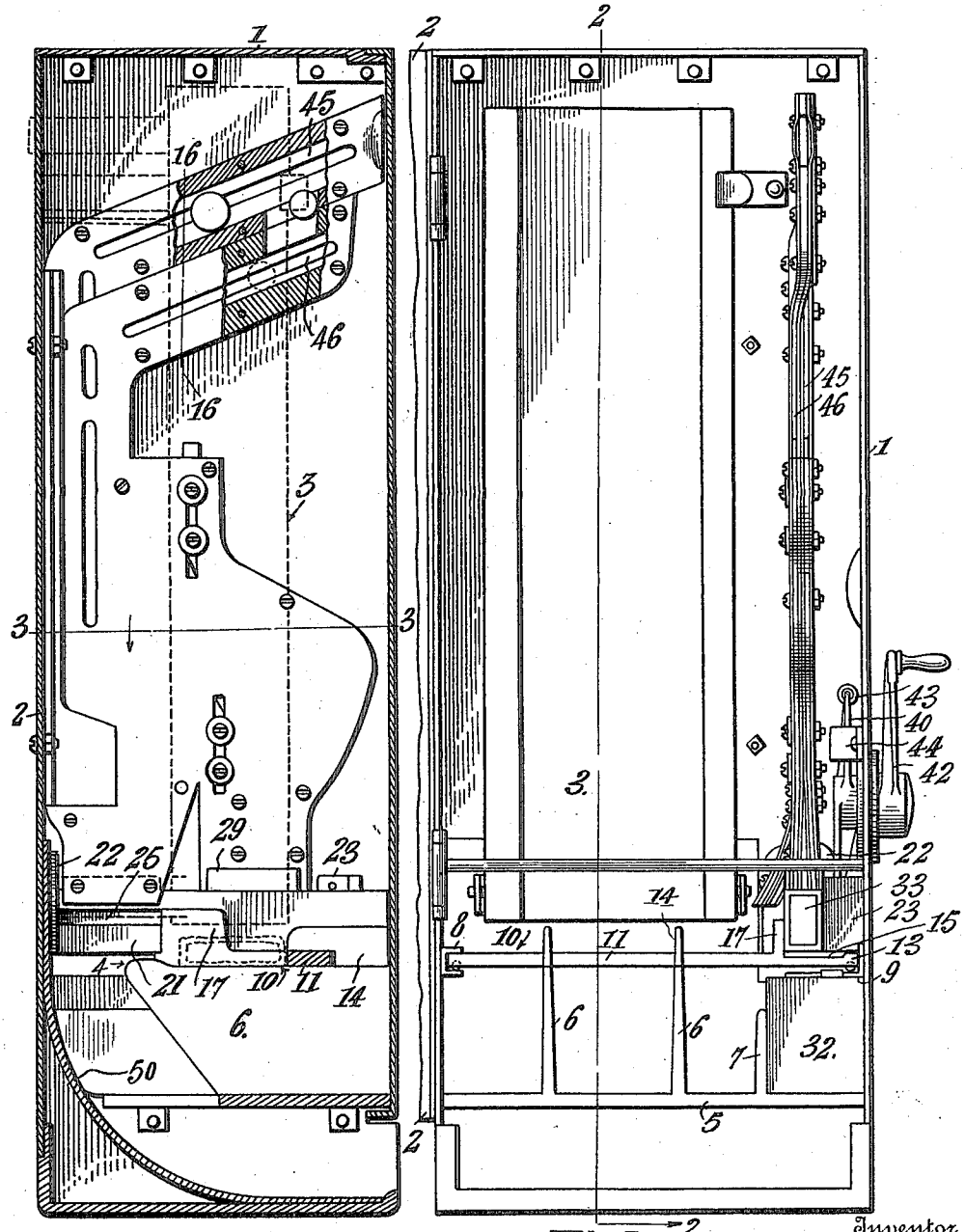



Fig. 2.

Fig. 1.

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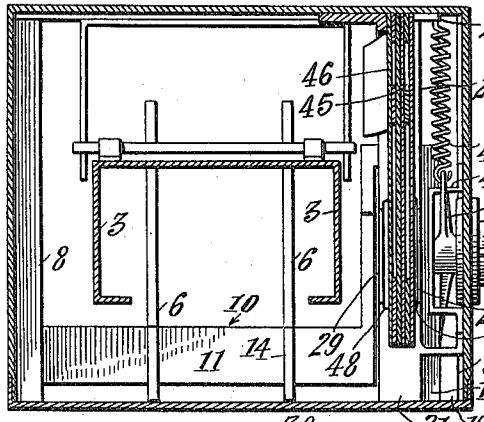



Fig. 3.

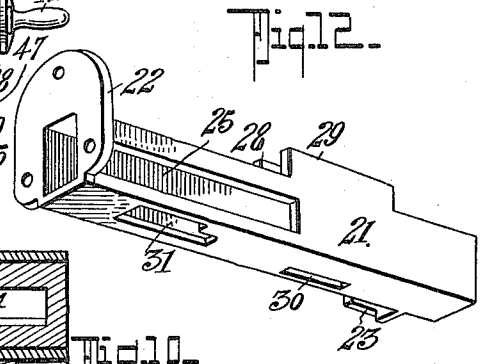



Fig. 12.

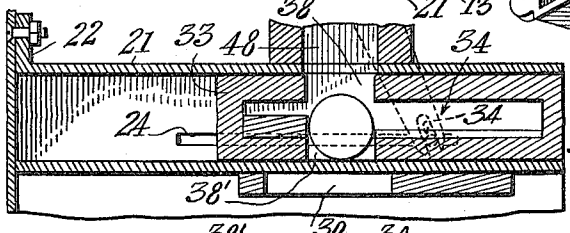



Fig. 10.

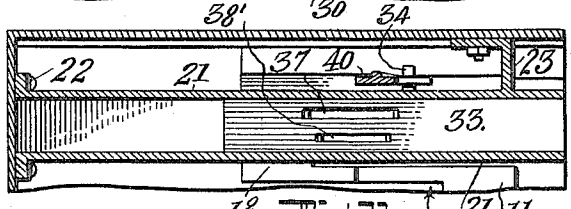



Fig. 11.

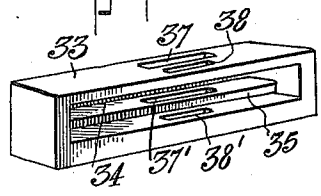



Fig. 13.

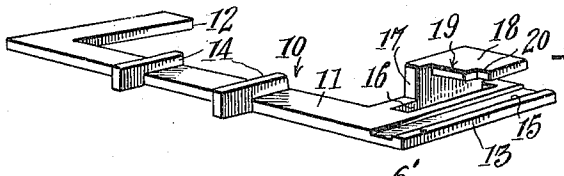



Fig. 14.

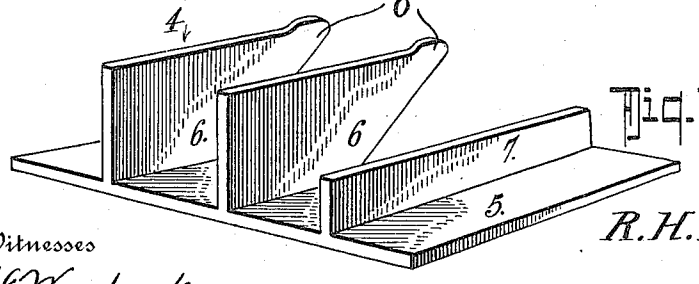



Fig. 15.




Fig. 16.

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3 SHEETS—SHEET 3.

Fig. 4.

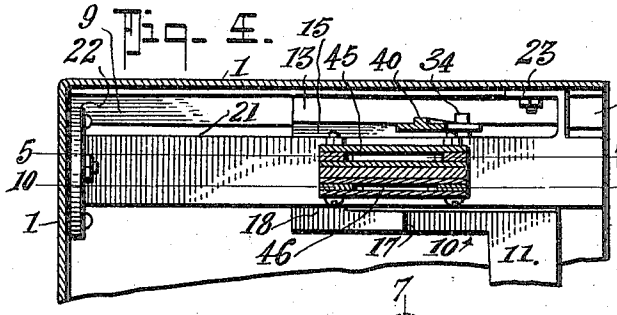



Fig. 5.

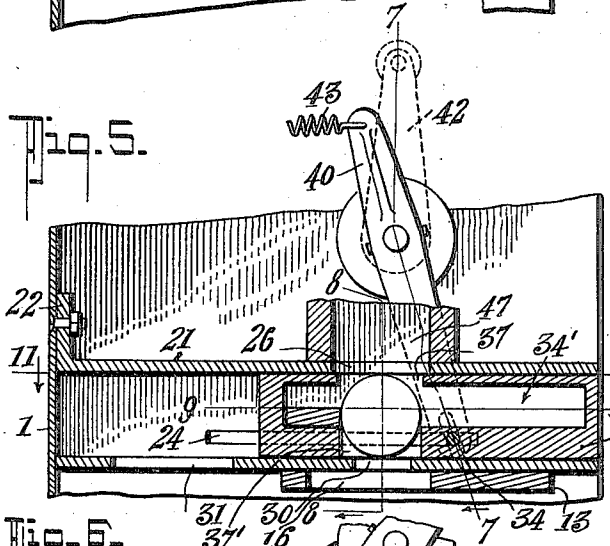



Fig. 6.

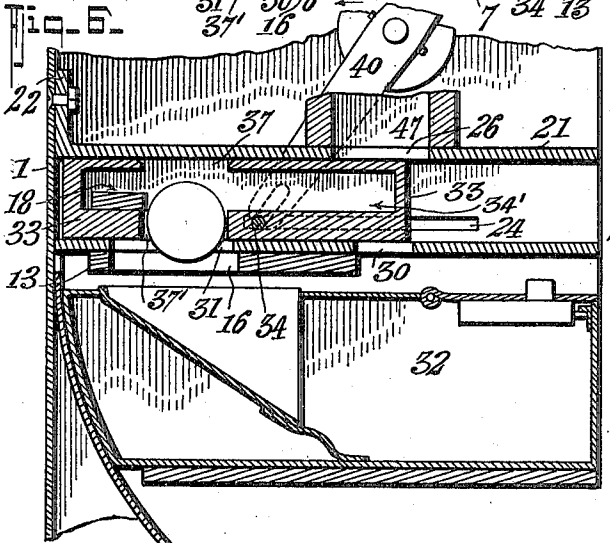



Fig. 7.

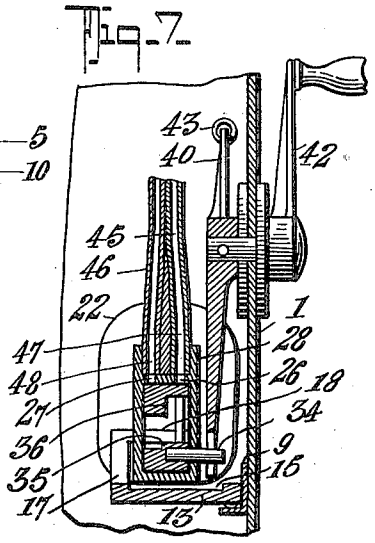



Fig. 8.

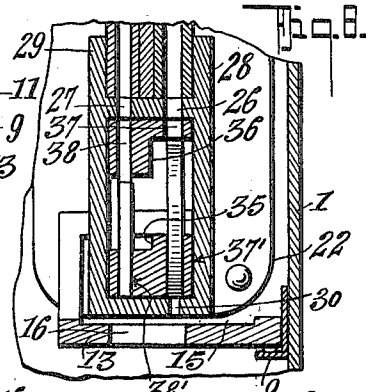
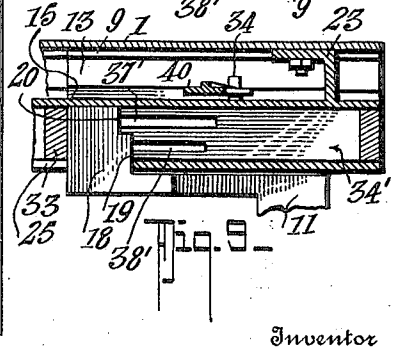



Fig. 9.




Witnesses

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# UNITED STATES PATENT OFFICE.

ROBERT H. POLLOCK, OF PLAINFIELD, NEW JERSEY, ASSIGNOR TO THE NEW JERSEY VENDING MACHINE COMPANY, OF PLAINFIELD, NEW JERSEY.

## VENDING-MACHINE.

1,161,334. Specification of Letters Patent. Patented Nov. 23, 1915.

Application filed November 3, 1913, Serial No. 798,990. Renewed August 31, 1915. Serial No. 48,349.

*To all whom it may concern:*

Be it known that I, ROBERT H. POLLOCK, a citizen of the United States, residing at Plainfield, in the county of Union and State of New Jersey, have invented certain new and useful Improvements in Vending-Machines; and I do 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 improvements in vending machines specially designed for vending packages containing individual towels or other articles.

One object of the invention is to provide a machine of this character having an improved construction and arrangement of coin operated actuating mechanism.

Another object is to provide a machine of this character which will be simple, strong, durable and inexpensive in construction, and which consists of comparatively few parts, which are not liable to get out of order.

Another object is to provide a vending machine having delivery mechanism constructed to prevent the accidental discharge of a package, should the machine be jarred or jolted.

Another object is to provide delivery mechanism having means for coöperating with the coin controlled mechanism.

With these and other objects in view the invention consists of certain novel features of construction, and the combination and arrangement of parts, as will be more fully described and claimed.

In the accompanying drawings, Figure 1 represents a front elevation of this improved machine with the door open and broken away to disclose the interior of the apparatus. Fig. 2 is a longitudinal vertical section taken on the line 2—2 of Fig. 1 with the door closed. Fig. 3 is a horizontal section taken on the line 3—3 of Fig. 2. Fig. 4 is a detail horizontal section showing the coin controlled mechanism partly in section. Fig. 5 is a detail vertical section through the coin controlled mechanism showing the slide in normal inoperative position taken on the line 5—5 of Fig. 4. Fig. 6 is a similar view showing the slide at its extreme rearward limit with a coin dropping therefrom into a receptacle arranged below to receive it. Fig. 7 is a detail vertical section taken on the line 7—7 of Fig. 5. Fig. 8 is a similar view taken on the line 8—8 of Fig. 5. Fig. 9 is a horizontal section through a portion of the coin controlled mechanism. Fig. 10 is a longitudinal vertical section taken on the line 10—10 of Fig. 4. Fig. 11 is a similar view taken on the line 11—11 of Fig. 5. Fig. 12 is a detail perspective view of the coin controlled mechanism detached. Fig. 13 is a similar view of the slide operable in said casing. Fig. 14 is a similar view of the package ejector. Fig. 15 is a similar view of the package supporting device. Fig. 16 is a detail vertical section taken on the line 16—16 of Fig. 2.

In the embodiment illustrated a suitable casing 1 is shown provided with a hinged closure 2 at the front thereof in the form of an ordinary door extending the full height of the casing, and which when opened, will expose the interior thereof and permit free access thereto. A package chute 3 shown in dotted lines in Fig. 1 is supported in said casing and preferably extends about three-fourths of the height thereof more or less and which may be of any suitable or desired construction, capable of receiving and holding packages to be delivered.

A package receiving device 4 is shown disposed in said casing below said chute and spaced from the bottom of said casing a suitable distance to permit the passage between it and said casing bottom of a package to be delivered. This device is shown in the form of a base plate 5 having longitudinally spaced plates 6 extending upwardly therefrom and projecting at their rear ends beyond the plate 5 to form suitable supports for the lowermost package in the chute, and which supports those above it. These plates 6 have projections 6′ extending upwardly from their inner ends to prevent the accidental discharge of a package should the machine be jarred or jolted. Another plate 7 extends upwardly from the plate 5 and forms one side of a compartment, in which the coin receiving box to be described is adapted to be inserted.

Suitable guides 8 and 9 are secured to the opposite side walls of the casing and each disposed in a plane slightly above or in alinement with the upper ends of the plates or partitions 6 which support the packages in the chute 3.

A package ejector 10 shown in detail in Fig. 14 is slidably mounted in the guides 8 and 9 and is normally disposed at the front of the casing at the rear of the lowermost package which rests on the plates 6. This ejector is preferably constructed as shown in Fig. 14 in the form of a bar 11 having arms 12 and 13 extending inwardly at right angles from opposite ends thereof, and which are adapted to slide in the guides 8 and 9. The bar 11 is preferably provided with longitudinally spaced lugs 14 which project beyond the front edge of said bar and above its upper face and are designed as stops for the package to be ejected to prevent its riding over said bar.

The arm 13 has a groove or recess 15 extending longitudinally thereof and which is designed to clear the coin controlled mechanism to be described, and in which said arm is adapted to slide. A slot 16 also extends longitudinally of said arm 13 parallel with the groove 15 and at one side of said groove and is adapted for the passage therethrough of the actuating coins when the ejector reaches a predetermined point. A standard 17 extends upwardly from the arm 13 at its inner edge and has an outwardly projecting laterally extending plate or arm 18 arranged at right angles to its upper edge adapted to extend into a slot of the casing of the coin controlled mechanism into position to be actuated by the slide therein as will be hereinafter described. This plate 18 has a shoulder 19 on its front edge against which a small actuating coin such as a Canadian half dime is adapted to abut and which prevents any play when said coin is inserted, and thereby causes the ejector to be immediately actuated when the slide is moved inwardly. The outer corner of this plate 18 is cut out as shown at 20 to provide a shoulder against which a nickel of United States currency is adapted to abut when this coin is used to actuate the mechanism, as will be hereinafter described.

Fixed to one side wall of the casing 1 adjacent that on which the arm 13 of the ejector is disposed is a casing 21 preferably constructed as shown in detail in Fig. 12 having a laterally extending flange or plate 22 at its rear end for securing it to the rear wall of the casing of the machine and with a bracket 23 secured to the outer side thereof whereby said casing 21 is secured to the side wall of the machine casing and is spaced thereby a sufficient distance from said machine casing to provide for the operation between the casing of the coin mechanism and the machine casing of an actuating lever to be described. This casing 21 is substantially rectangular in cross section and its opposite side walls are provided with longitudinally extending slots 24 and 25, the slot 24 extending from the front end of the casing inward and the slot 25 which is in the opposite side wall of the casing extends from its rear end inward as is shown clearly in Fig. 12. The upper wall or top of the casing 21 has coin slots 26 and 27 therein arranged near the front end thereof directly below coin chutes to be described. These slots 26 and 27 are arranged side by side in parallel relation, the slot 26 being wider and longer than the slot 27 and is designed for the passage therethrough of a United States nickel which is the coin preferably used. The other slot 27 is designed for the passage of a Canadian half dime which may be used when the vending machine is employed on railway trains running into Canada.

Upwardly projecting guide plates 28 and 29 are arranged on the outside walls of the slots 26 and 27 as shown in Fig. 12 and are designed to guide the coins into the slots from the chute as will be hereinafter described. A slot 30 is arranged in the bottom of the casing 21 in alinement with the nickel slot 26 and is of a width and length sufficient to permit the passage therethrough of a copper penny should such a coin be dropped into the nickel slot of the machine and an attempt made to actuate the machine thereby. This slot 30 would permit the penny to drop through into the coin receptacle below when it reached to slot 26, without actuating the ejector mechanism.

An opening 31 is formed in the bottom of the casing 21 near the rear end thereof and through which the actuating coin employed is designed to drop after it has served its purpose for operating the ejector mechanism, said opening 31 being arranged above a coin receptacle 32 disposed in the compartment formed between the outer side wall of the casing 1 and the partition 7 of the plate 5.

The casing 21 is open at its opposite ends and a slide 33 is mounted for reciprocation therein, said slide having a stud 34 extending laterally from the outer side wall thereof through the slot 24 in the casing 21 and which is adapted to be connected with the actuating lever hereinafter to be described. This slide 33 has an opening 34′ extending transversely therethrough from one side to the other and through the greater portion of the entire length of the slide, as is shown clearly in Fig. 13. The bottom wall of this opening 34′ has a longitudinally extending offset or shoulder 35 for a purpose to be described, and the upper wall thereof has a similar shoulder 36 extending longitudinally thereof and formed parallel therewith for the actuating coins. The top and bottom walls of the slide 33 have registering longitudinally extending slots 37, 37′ and 38, 38′, the slots 37 and 37′ being longer and wider than the slots 38, 38′ and are designed to receive a nickel, while the slots 38, 38′ are

designed to receive the Canadian half dime. These slots are of sufficient length and width to receive and hold the actuating coins without permitting any appreciable play between the walls thereof and the coin and yet are sufficiently large to permit the coin to drop through when the slide passes over the opening 31 in the bottom wall of the casing 21. This slide 33 is adapted to travel in the casing 21 and be reciprocated longitudinally therein by an actuating lever 40 which is engaged with the stud 34 which projects laterally through the slot 24 in the casing 21. This lever 40 is shown in the form of a substantially straight bar having a fulcrum or pintle extending laterally therefrom through the side wall of the casing 1 and on the outer end of which is mounted an actuating handle 42. This lever is arranged in the space between the casing 21 and the inner wall of the side of the casing 1, as is shown clearly in Fig. 7, one end of said lever being engaged with the stud 34 of the slide 33, and the other end thereof is connected by a coiled spring 43 with the rear wall of the casing 1, said spring being designed to return the lever and the slide connected therewith to operative position when the handle is released. In the embodiment shown, the end of the lever which is engaged with the stud 34 is shown bifurcated or slotted and fits over said stud, as is shown clearly in Figs. 5 and 6. A stop 44 is preferably arranged on the inner face of the side wall of the casing 1 near the front thereof to limit the forward movement of the upper end or arm of said lever against the tension of the spring 43.

Suitable coin chutes 45 and 46 of any desired or suitable construction are arranged in the casing, being here shown secured to the rear wall thereof and are provided at their lower ends with mouths 47 and 48 which discharge into the slots 26 and 27 of the casing 21 of the coin controlled mechanism.

An inclined package chute 50 is secured to the rear wall of the casing 1 below the package chute 3 and is inclined forwardly for permitting the package to slide freely thereto the front of the casing when the ejecting mechanism is actuated.

In the operation of this vending machine, the parts being in normal position, a coin of the proper denomination is inserted in the coin chute 45 or 46, as the case may be, and passes down the chute and through the mouth at the lower end thereof, and enters the casing 21 through one of the slots 26 or 27 and drops into the proper slot 37 or 38 in the slide 33 in advance of the arm or plate 18 of the ejector which extends into the opening 34′ in said slide. The handle of the lever 40 is then moved forwardly causing the lower end of said lever connected with the stud 34 of slide 33 to move inwardly carrying with it the slide 33. This inward movement of the slide 33 brings the coin, which spans the opening 34′ therein near its rear end, into engagement with the arm 18 of the ejector and causes the slide and the ejector to be moved inwardly thereby forcing the package which rests on the supports 6 in rear of the bar 11 inward until it clears the inner ends of said supports 6 and the package will then drop onto the inclined chute and pass by gravity to the front of the casing below plate 5 from which it may be readily removed by the purchaser. The handle 42 is then released and the coiled spring connected with the upper end of the lever 40 and the rear wall of the casing will draw back the upper end of said lever and force its lower end forward, thus projecting the slide 33 and ejector 10 into normal position ready for use. Should the handle 42 be moved forward when an actuating coin has not been inserted in the machine, the slide 33 will move inwardly without operating the ejector, as the opening 34′ of said slide which extends substantially the entire length thereof will permit it to move freely over the arm 18 without engaging it.

Suitable mechanism may be provided for preventing the use of spurious coins or coins of improper denomination to operate the ejector, but as this mechanism forms no part of the present invention, it is not deemed necessary to describe or illustrate it.

I claim as my invention:—

1. In a coin controlled mechanism the combination of a casing having slots in its opposite side walls and a coin slot in its upper wall near its front end and one in its bottom wall near its rear end, a coin receiving slide reciprocable in said casing and having a projection extending through the slot in one wall of the casing, an operating lever connected with said projection, a coin slot extending through said slide from the top to the bottom thereof and adapted to register with the coin slot in the front end of the casing when the slide is in normal position to receive an actuating coin, and a longitudinal slot extending transversely through said slide and through the coin slot therein, and a package ejector having an arm extending through the slot in said casing into the longitudinally extending slot of said slide.

2. In a coin controlled mechanism the combination of a casing having slots in its opposite side walls and a coin slot in its upper wall near its front end and one in its bottom wall near its rear end, a coin receiving slide reciprocable in said casing and having a projection extending through the slot in one wall of the casing, an operating lever connected with said projection, a coin

slot extending through said slide from the top to the bottom thereof and adapted to register with the coin slot in the front end of the casing when the slot is in normal position to receive an actuating coin, a longitudinal slot extending transversely through said slide and through the coin slot therein, and a package ejector having an arm extending through the slot in said casing into the longitudinally extending slot of said slide, said casing also having a coin slot of smaller size extending through the bottom wall thereof in alinement with the coin slot near its front end.

3. In a coin controlled mechanism, the combination of a casing having slots in its opposite side walls and a coin slot in its upper wall near its front end and one in its bottom wall near its rear end, a coin receiving slide reciprocable in said casing and having a projection extending through the slot in one wall of the casing, an operating lever connected with said projection, a coin slot extending through said slide from the top to the bottom thereof and adapted to register with the coin slot in the front end of the casing when the slot is in normal position to receive an actuating coin, a longitudinal slot extending transversely through said slide and through the coin slot therein, a package ejector, and means operable by the coins for connecting said slide and package ejector.

4. In a coin controlled mechanism, the combination of a casing having slots in opposite side walls and parallel coin slots of different sizes in its upper wall near its front end and in its bottom wall near its rear end, a coin slot in the bottom wall of said casing arranged in vertical alinement with the larger slot in the upper wall thereof near the front end of the casing, a coin receiving slide reciprocable in said casing, a lever connected to reciprocate said slide, parallel coin slots of different sizes extending through said slide from top to bottom, said slide having an opening extending transversely therethrough from end to end, and shoulders on the upper and lower walls of said opening arranged between the coin slides therein.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

ROBERT H. POLLOCK.

Witnesses:
H. R. LINBARGER,
KATHERINE LEAHY.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."