A. F. WELLS & J. SAXTON.

RAISIN VENDING MACHINE.

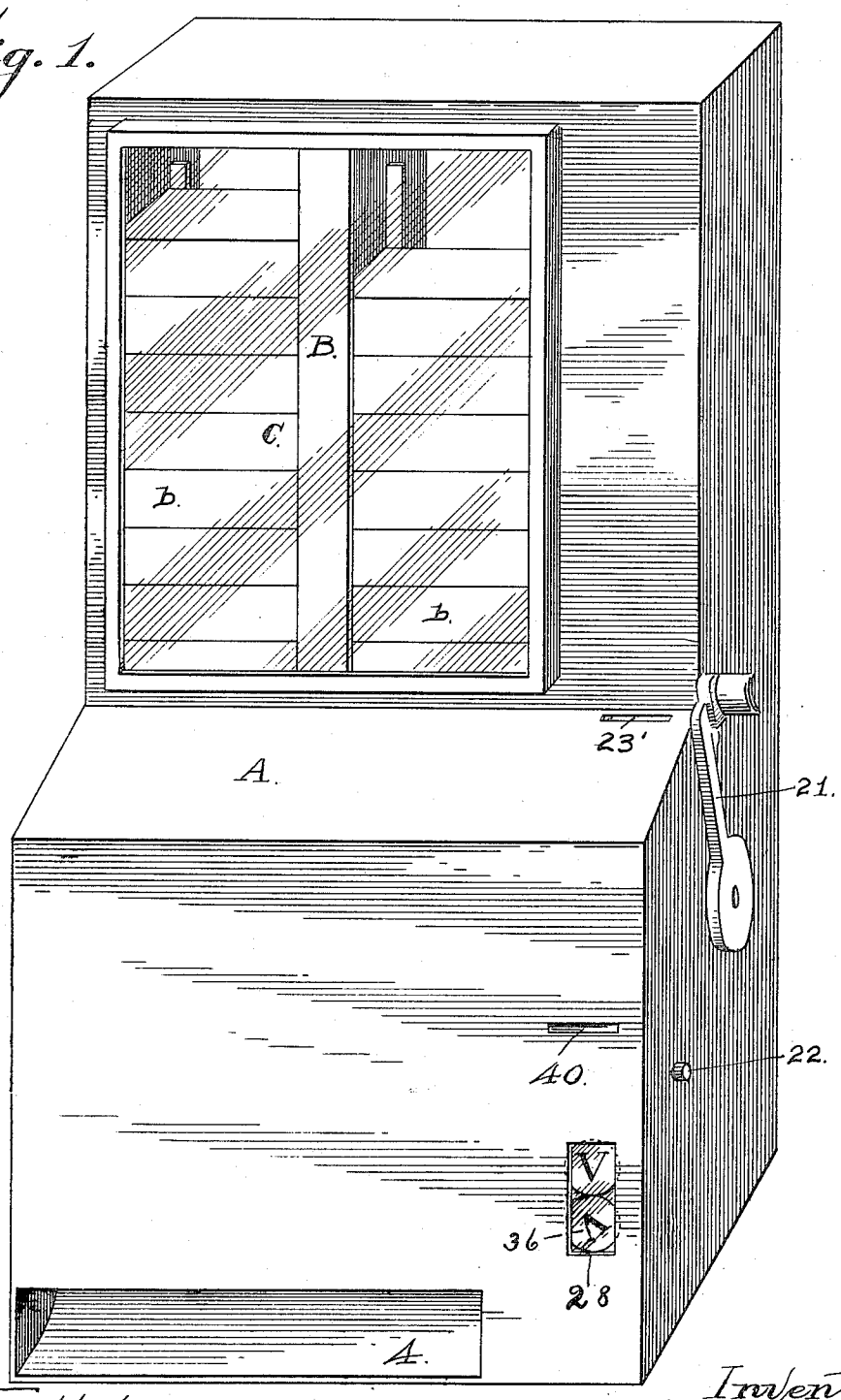
APPLICATION FILED AUG. 18, 1910.

1,139,828.

Patented May 18, 1915.

4 SHEETS—SHEET 1.

Fig. 1.



Witnesses:
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Wm. S. Bates.

Inventors
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Attorney

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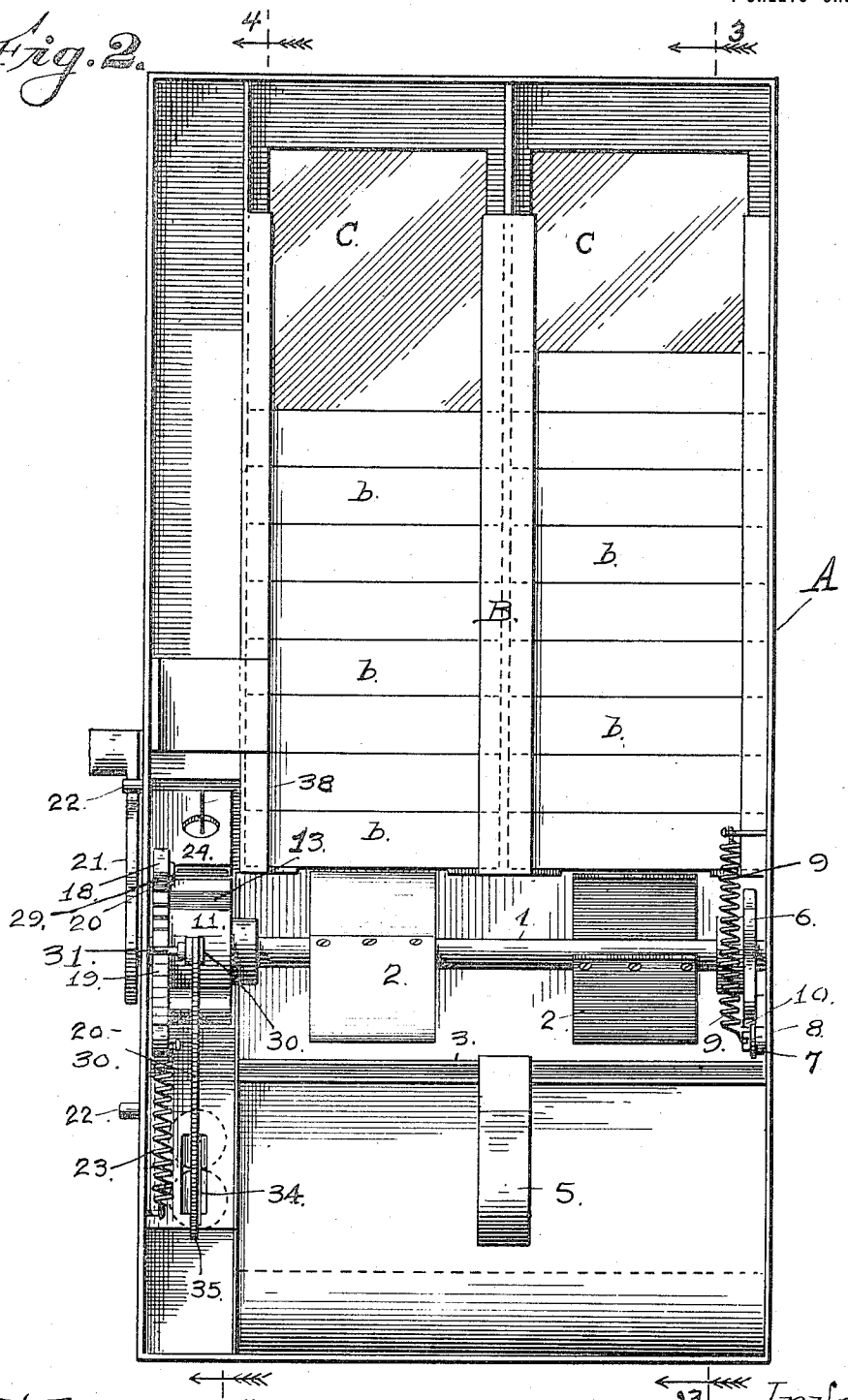
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4 SHEETS—SHEET 2.

Fig. 2.



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4 SHEETS—SHEET 3.

Fig. 3.

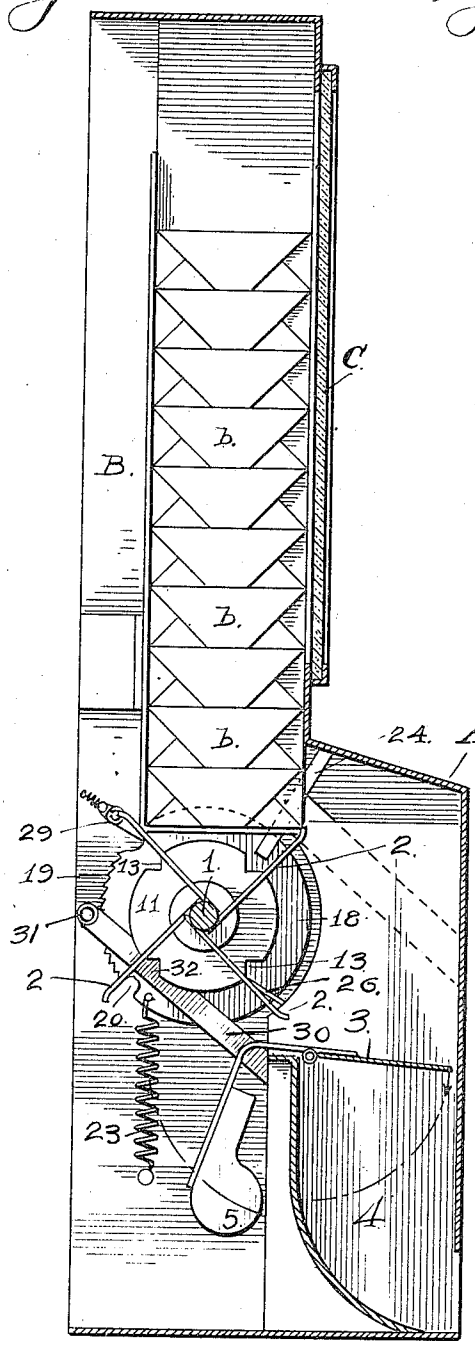
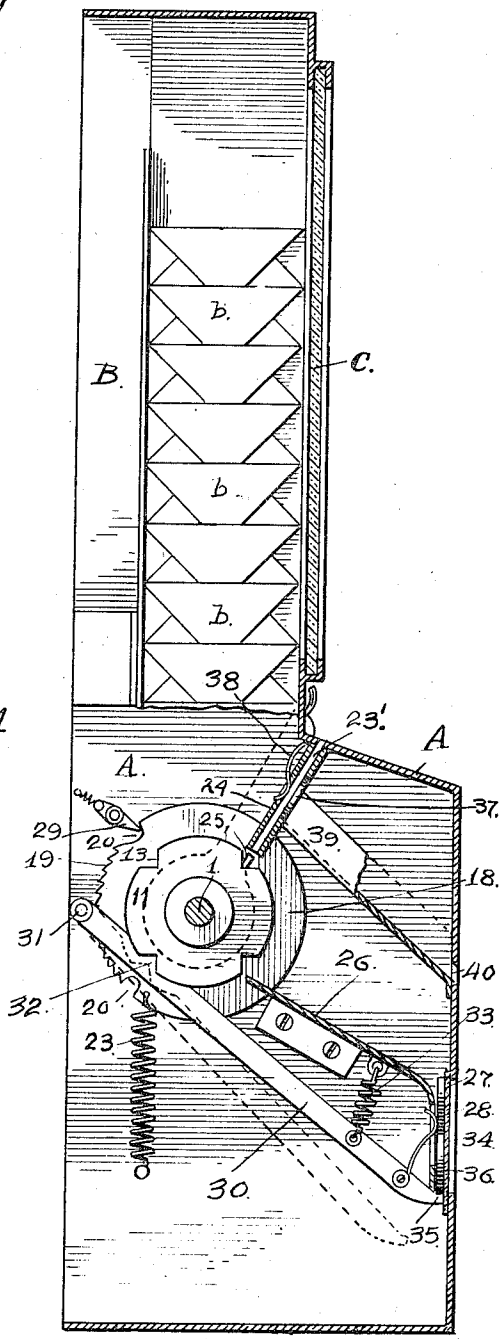


Fig. 4.



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4 SHEETS—SHEET 4.

Fig. 5.

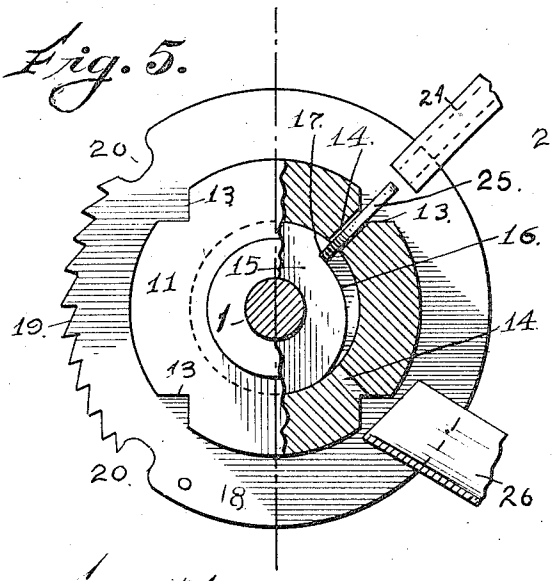


Fig. 6.

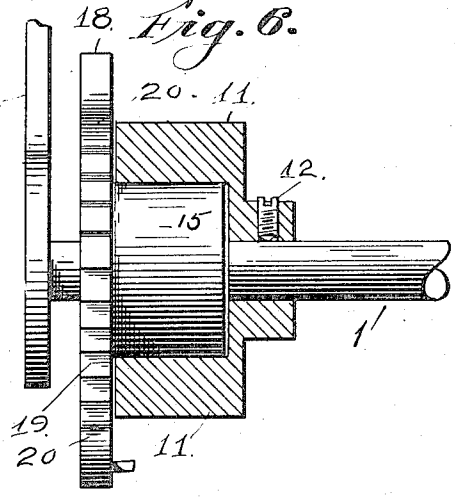


Fig. 7.

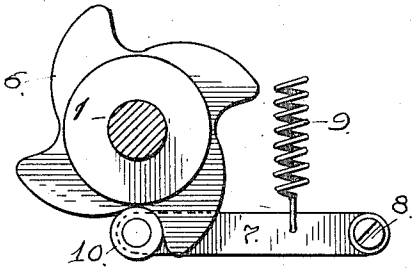


Fig. 8.

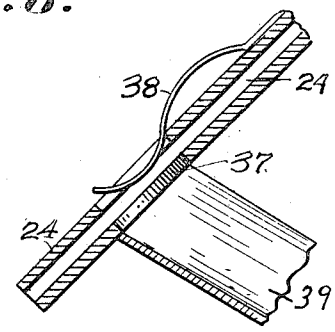
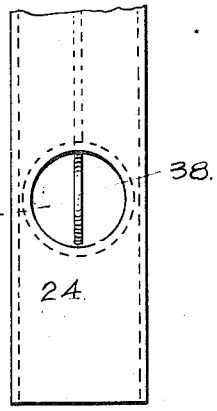


Fig. 9.



Witnesses:
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UNITED STATES PATENT OFFICE.

ARTHUR F. WELLS AND JOSEPH SAXTON, OF SAN FRANCISCO, CALIFORNIA, ASSIGNORS TO JAMES C. PAINE, E. G. HOAG, FRED NELSON, AND PAUL HUTCHINSON, ALL OF FOWLER, CALIFORNIA.

RAISIN-VENDING MACHINE.

1,139,825. Specification of Letters Patent. Patented May 18, 1915.

Application filed August 18, 1910. Serial No. 577,843.

To all whom it may concern:

Be it known that we, ARTHUR F. WELLS and JOSEPH SAXTON, of San Francisco, California, have invented certain new and useful Improvements in Raisin-Vending Machines, whereof the following is a specification.

Our invention is intended more particularly for the delivery to a purchaser who inserts a coin into the machine of a package of California raisins, but it, obviously, may be used for vending other things.

In its general features a machine constructed in accordance with our invention, comprises a casing in which is contained a column of the goods to be sold, a reel at the bottom of the column which pushes out the lowest package of the column which then falls through a trap door into the delivery chute, a coin slot for the insertion of the purchasing coin, and a chute for the latter, an operating handle or arm to be manipulated by the purchaser, means by which the inserted coin locks said handle to the reel, a safety chute through which coins and slugs of smaller size than those to which the machine is intended to respond, are automatically deflected and discharged from the machine, and other parts, all of which will be hereinafter described in connection with the accompanying four sheets of drawings, in which we have illustrated our invention as embodied in a machine for selling packages of raisins for five cents each.

In the drawings:—Figure 1 is a front elevation in perspective of the machine ready for use. Fig. 2 is an elevation of the machine from behind, with the back plate removed. Fig. 3 is a sectional elevation on the line 3, 3, of Fig. 2. Fig. 4 is a sectional elevation on the line 4, 4, of Fig. 2. Fig. 5 is a face view, partly in section, showing the coin clutch and adjacent portions of the chute. Fig. 6 is a view at right angles to Fig. 5, the outer member of the coin clutch being in section. Fig. 7 is a face view of the dog and ratchet for preventing a reverse movement of the shaft. Figs. 8 and 9 are details showing the connection of the safety chute with the main chute.

In the figures:—A represents the casing of the machine, containing in its upper part two columns, B, of packages, *b*, of raisins, or other goods, and provided with glass fronts C, C, through which the latter may be seen. Below the columns of packages is a shaft 1, extending across the casing, and carrying the reel or discharge blades 2, of which there are a pair under each column, so that a package is pushed out from one or other of the columns, alternately, with each quarter revolution of the shaft. The package which is pushed out from under either column, falls onto the trap door 3 and, by its weight and impact, opens it, and passes to the delivery chute 4. A weight 5 closes the trap door after the passage of the package. Upon the end of the shaft is a ratchet wheel of four teeth, 6, to prevent any reverse movement of the shaft, and to position it accurately for the next operation. The ratchet acts in conjunction with a dog 7, pivoted at 8 and held thereagainst by a spring 9. An antifriction roller 10 eases the motion of the parts.

Upon the opposite end of shaft 1 from the ratchet 6 is a cup shaped drum 11, fixed to the shaft by a set screw 12 or otherwise. The drum 11 has in its periphery four V shaped notches at equal distances apart, and also four radial slots, 14, which may extend from the bottoms of the notches 13. Within the hollow of drum 11 is a second drum 15, which at one side has a cam surface 16 and a shoulder 17. The drum 15 is rotatively connected to a disk 18 which has a portion of its periphery ratchet toothed at 19, and a notch 20 at each end of the toothed portion. The disk 18 is in turn connected to the handle 21, so that these three parts, the handle, the disk and the drum 15, turn together, when the handle is oscillated. The handle 21 is exterior to the casing A and the other parts are interior thereto. The oscillation of the handle may be limited by suitable stops 22, placed in its path on the casing. 23 is a spring applied to disk 18 to return it and the handle and drum 15 to their normal position with the handle against the upper stop, as shown in Fig. 1.

At 23′ is the slot for the insertion of the coin. The coin inserted, if it be of the proper denomination, passes down the chute 24, and is guided by the V shaped notch 13 into the radial slot 14 in the outer clutch drum 11, and there stops, resting against the inner clutch drum 15, as seen at 25 in Fig. 5. If now the handle 21 be oscillated the shoulder 17 engages the coin, which thus locks the two drums together, and the shaft 1 is oscillated and a package discharged by the action

of the reel blade 2. When the parts have made a quarter revolution, the handle engages the lower stop, and further oscillation is arrested. If now the handle be released, it is returned to its primitive position, and the cam surface 16 starts the coin out of its slot into the chute 26, down which it slides into a position at 27 in front of the window 28. To prevent the handle from making less than a complete quarter turn, a dog 29 is provided to engage the ratchet teeth 19 of disk 18. When however the handle has made its quarter turn, the point of the dog drops into notch 20 which permits the dog to reverse and ride over the points of the teeth during the backward movement of the handle until the latter has again reached its primitive position, when the dog again reverses in the upper notch 20, and the operation may be repeated.

30 is a lever pivoted at 31 and extending downward and forward under drum 11, and caused to bear thereagainst by a spring 33. This lever is provided with a V shaped projection or tooth 32 in position to engage a V shaped notch 13 of drum 11 and thereby hold the same in position to receive a coin from chute 24 and discharge it into chute 26. Near the free end of the lever is a light spring 34 which arrests the coin in its passage down the chute and holds it in view opposite the window 28 until the next operation of the machine when the coin moves downward as the lever and spring are depressed, to the position at 36 where it is caught by a step 35 on the end of the lever as the latter snaps up again when a notch 13 comes opposite tooth 32. At the next operation of the machine the coin at 36 drops into the space under the lever.

To prevent the use of improper coins or slugs instead of the required coin, we make use of the following device. The chute 24 is perforated at 37 with a hole just too small for the passage of a nickel, or whatever coin the machine is built for, and opposite this perforation is a spring 38 working through a slit in the back wall of chute 24. If now a small coin, or other disk be inserted into slot 23, it will be pushed by spring 38 into the hole 37, and will slide down chute 39 and out of slit 40, whereas a coin of proper size will pass over the hole 37.

Having thus described our invention, and a machine embodying the same in its best form, what we claim is:—

1. In a vending machine, a casing, a shaft in the casing, said shaft carrying a hollow drum, an operating arm, a drum carried by the operating arm, said drums having means for holding a coin to make a connection therebetween, said hollow drum having V shaped notches in its periphery, an arm pivotally supported in the casing, a projection on the arm, said projection adapted to engage with the V shaped notches, means for holding the projection normally into engagement with one of the notches, means for directing a coin to one end of the arm, means on the arm for engaging the coin and forcing the same into engagement with one of the walls of the casing, and means for preventing reverse movement of the operating arm.

2. In a vending machine, a casing, a shaft in the casing, a drum on the shaft, an operating arm, said arm having one end thereof extending into the casing, a drum carried by the operating arm, means on the drum whereby a coin may form a connection therebetween, one of the drums having notches, a coin chute in the casing, an arm having one of its ends pivotally secured within the casing, the opposite end of said arm having a step, said step being disposed under one end of the coin chute, to receive a coin from the chute, a projection on the arm, said projection adapted to engage one of the notches of the drum, and means for preventing the reverse movement of the operating arm.

In testimony that we claim the foregoing we have hereto set our hands this 6th. day of August, 1910, in the presence of witnesses.

A. F. WELLS.
JOSEPH SAXTON.

Witnesses:
J. W. PEARSON,
M. DE BONNET.