Feb. 5, 1946. J. J. CUBETE 2,394,292

VENDING MACHINE FOR NEWSPAPERS AND THE LIKE

Filed April 13, 1942 3 Sheets-Sheet 1

Fig. 1.

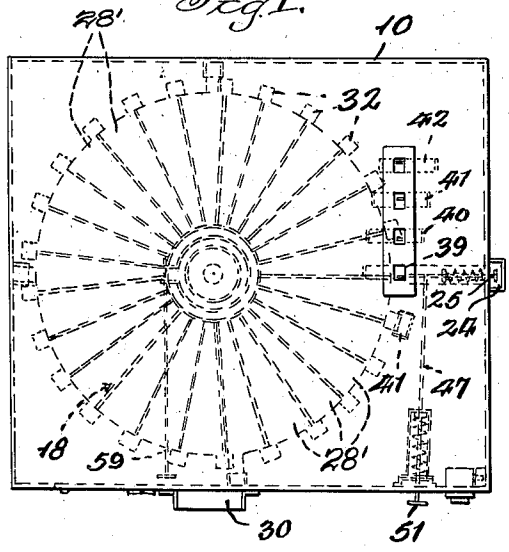
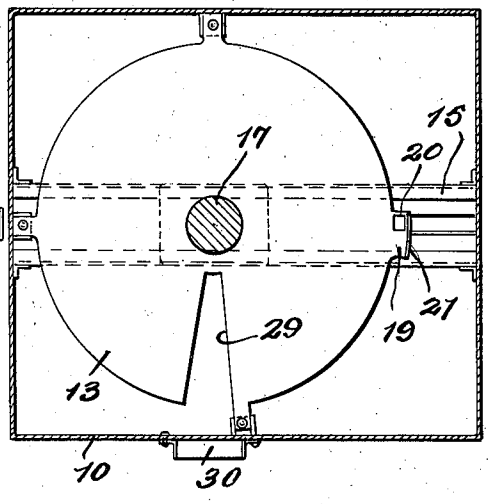


Fig. 7.



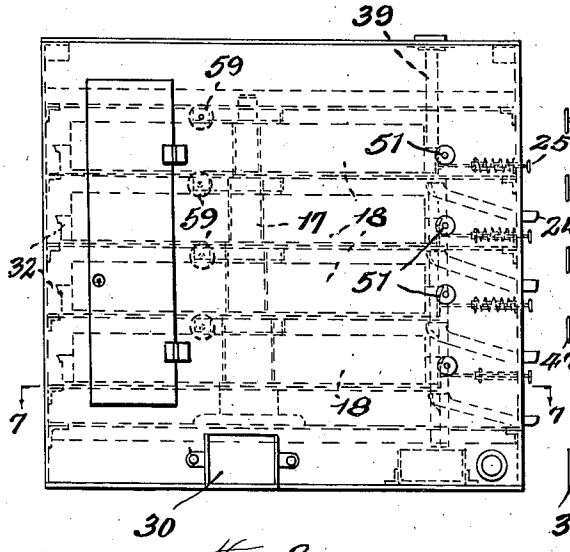


Fig. 2.

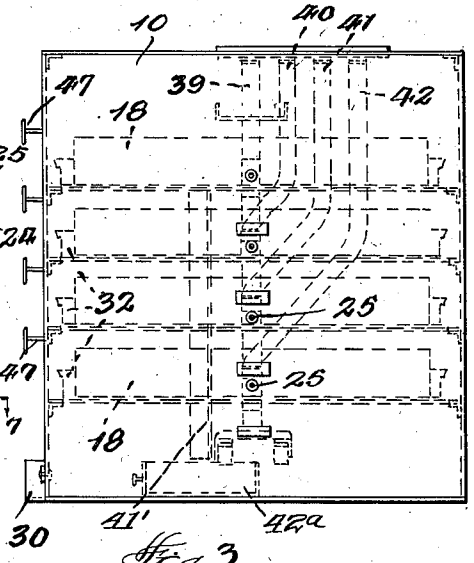


Fig. 3.

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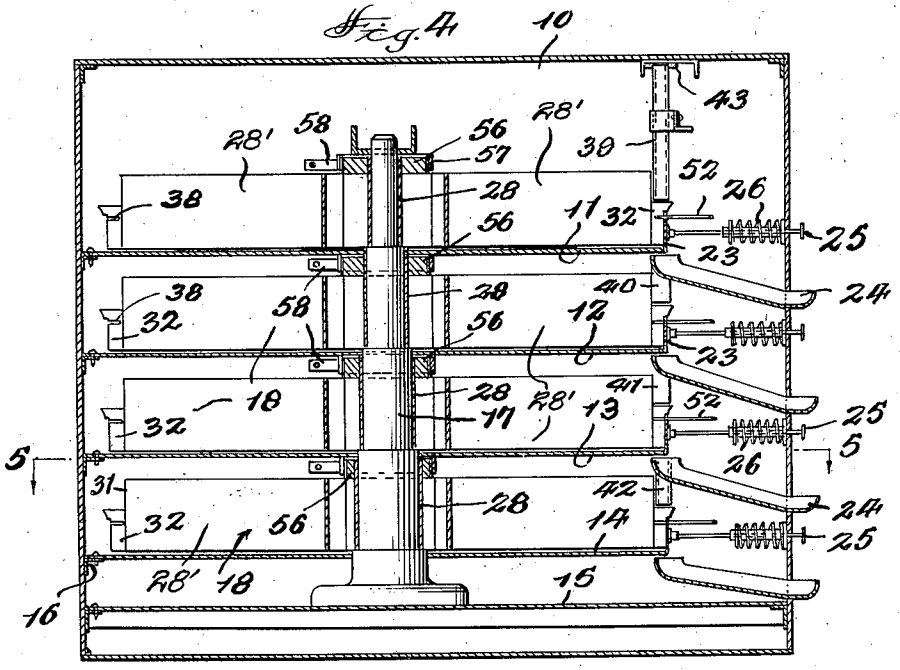
Attorney

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VENDING MACHINE FOR NEWSPAPERS AND THE LIKE

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Fig. 4



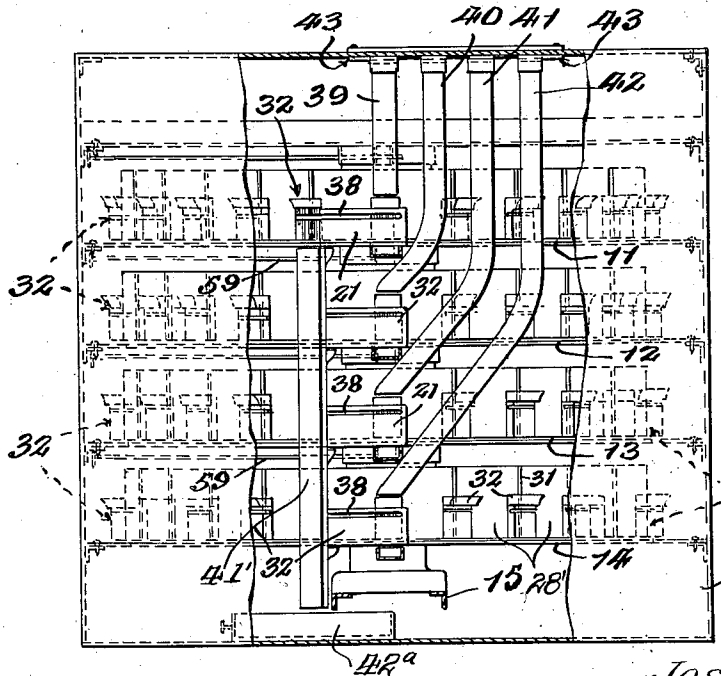
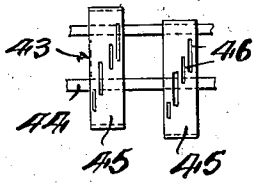


Fig. 6.

Fig. 11.



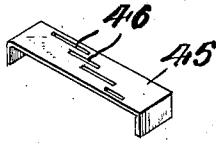


Fig. 12.

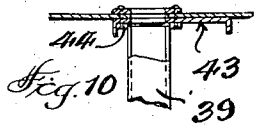


Fig. 10

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VENDING MACHINE FOR NEWSPAPERS AND THE LIKE

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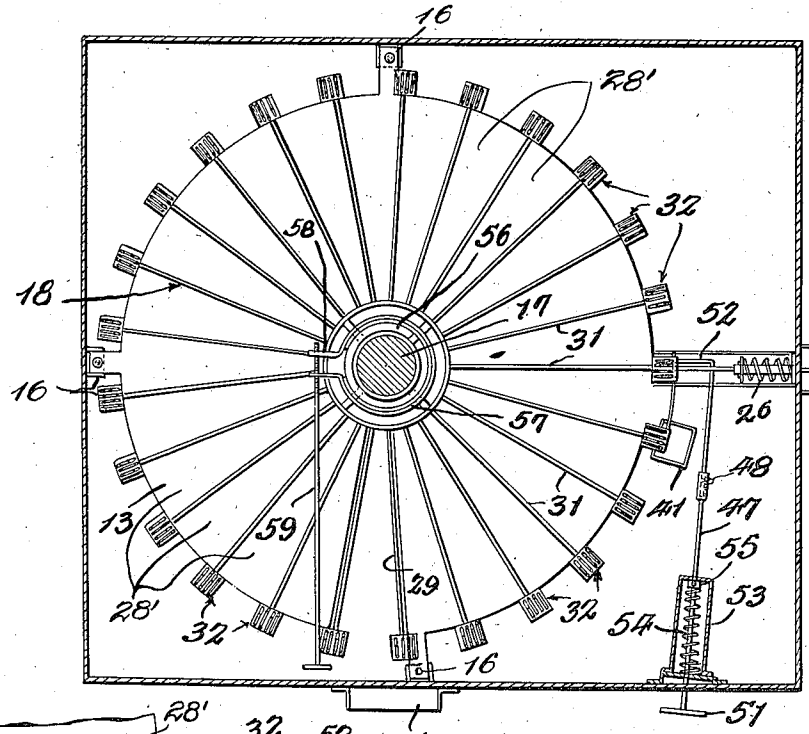


Fig. 5.

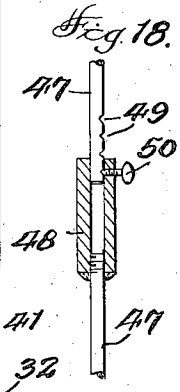


Fig. 18.

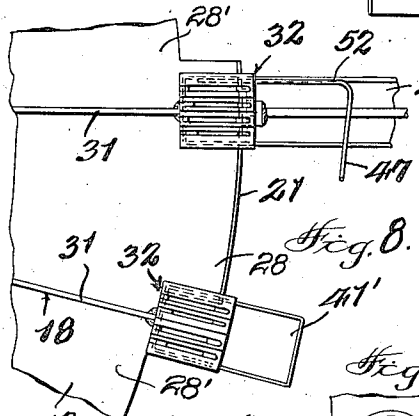


Fig. 8.

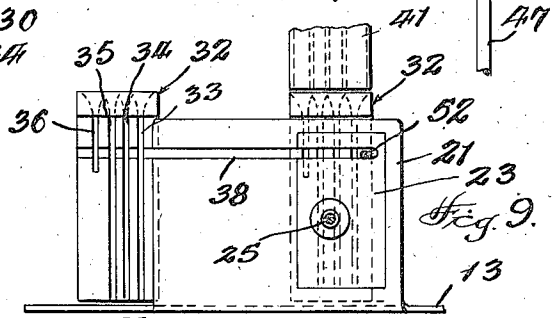


Fig. 9.

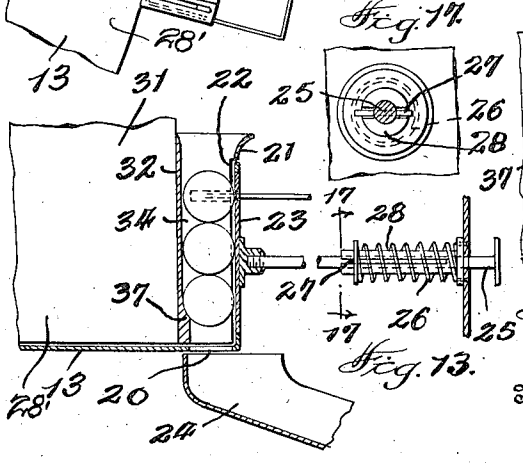


Fig. 13.

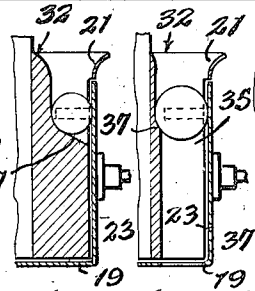


Fig. 14.

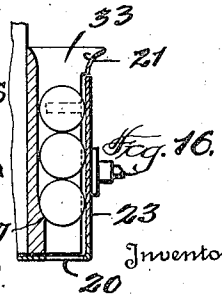


Fig. 15.

Fig. 16.

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Patented Feb. 5, 1946 2,394,292

UNITED STATES PATENT OFFICE

2,394,292

VENDING MACHINE FOR NEWSPAPERS AND THE LIKE

Joseph John Cubete, Charleston, S. C.

Application April 13, 1942, Serial No. 438,830

1 Claim. (Cl. 194—75)

This invention relates to vending machines and more particularly to machines for vending newspapers and magazines and it consists in the constructions, arrangements and combinations herein described and claimed.

It is a particular object of the invention to provide a machine in which a plurality of superposed rotatable drum members are provided, each being subdivided into compartments for reception of an individual newspaper or magazine and having means for manually rotating respective drums to a point of discharge of a selected newspaper or magazine.

It is also an object of the invention to provide means for regulating the degree of rotation of the drums insuring proper registry of a discharge opening with a delivery opening of the housing of a machine.

It is a further object of the invention to provide a novel construction of coin holder adapted to accommodate coins of different denominations and including means whereby the coins may be returned to the depositor in the event that the coins are inadvertently deposited.

It is also an object of the invention to provide a changeable coin selector permitting adjustment thereof to accommodate coins of different denominations.

Additional objects, advantages and features of invention will be apparent from the following description considered in conjunction with the accompanying drawings, wherein,

Figure 1 is a top plan view of a machine constructed in accordance with my invention,

Figure 2 is a side elevation thereof at the delivery side,

Figure 3 is a side elevation at right angles to Figure 2,

Figure 4 is an enlarged vertical section through the machine,

Figure 5 is a horizontal section on the line 5—5 of Figure 4,

Figure 6 is a fragmentary vertical section illustrating the arrangement of the coin chutes,

Figure 7 is a horizontal section on the line 7—7 of Figure 2,

Figure 8 is an enlarged fragmentary portion of one of the drums illustrating coin holders as embodied thereon,

Figure 9 is a front elevation thereof,

Figure 10 illustrates a construction of coin chute employed,

Figure 11 is a fragmentary top plan view illustrating one of the coin selectors,

Figure 12 is a perspective view of one of the coin selector plates,

Figure 13 is a sectional view through one of the coin holders, illustrating the coin return mechanism,

Figures 14 to 16 are sectional views through coin holders employed in the device,

Figure 17 is a cross section on the line 17—17 of Figure 13.

Figure 18 is an enlarged sectional detail of one of the operating levers.

In carrying out the invention I provide a housing 10 of any suitable size and shape, this depending upon the articles to be dispensed. The housing includes in the present instance, five transverse partition walls 11, 12, 13, 14 and 15, the walls being suitably connected with the side walls of the housing, as indicated at 16. The lowermost wall 15 has mounted thereon an upright spindle 17, having spaced graduated diameters for support of drums 18 presently to be described.

Each of the walls 11 to 14 is provided with an offset horizontal extension 19 apertured as at 20 and having a vertical wall 21, curved outwardly slightly, for guidance of coins as will be understood. The walls 21 are formed with an opening 22 normally closed by means of a releasable door 23, which in its open position will discharge coins by way of the apertures 20 into a return chute 24 when manually released, which is necessary to return coins in the event that the depositor should inadvertently deposit money in the chutes.

In the present instance, the door 23 may be actuated by a plunger 25 extended through a wall of the housing 10, and as shown, the plunger is threadedly engaged with a boss formed on the door 23. A helical spring 26 is positioned on the plunger interposed between a pin 27 and the wall of the housing and urging the door into closed position. It will be apparent that outward pull on the plunger will draw the door from the opening 22 so that the coins may drop into the chute 24. Upon release of the plunger, the spring 26 will return the door to its operative position. In order that the plunger may be suitably supported and guided, a sleeve 28 is provided, longitudinally slotted to permit entrance of the pin 27.

The drums 18 are of identical construction, with exception of the hub portions 28 and these differ only in the diameter of the hub portions which are complemental to respective diameters of the spindle 17.

One of the plates 11—14, as the case may be, is positioned beneath each drum 18, each plate having an opening 29 (see Figures 5 and 7) of

a size to permit the passage of a newspaper or magazine therethrough, the openings 29 being vertically aligned so as to discharge into a common discharge opening 30 whereby the paper or magazine may be readily withdrawn by the purchaser.

Each drum is adapted to be rotated by manual operation as will be described, and in operative position each compartment of the drum will register with the aligned openings 29 for discharge of its contents.

As clearly shown in Figures 4 and 5, the drums are divided by partitions 31 radiating outwardly from respective hub portions 28, thus forming compartments 28' and at the extremity of each partition there is secured a coin receptacle 32, now to be described, attention being invited, particularly to Figures 5, 8, 9, 14 and 15.

The receptacles 32 are identical in construction, and a description of one will suffice for a clear understanding of the construction and operation. As shown, the receptacle comprises a body having four vertical slots 33, 34, 35 and 36 opening through the upper end of the body, the slots 33, 34 and 35 opening through the bottom of the body, while the slot 36 is slightly less than one-third the length of the first named slots. Each of the slots 33 to 36 is provided with an abutment 37 positioned at different height within respective slots, this being determined by the denomination of coins to be accommodated within the slots. For instance, we will assume that slot 33 will accommodate three cents, in superposed edgewise relation, which obviously will place the abutment adjacent the lower end of the slot. The slot 34 will accommodate three nickels (see Figure 13) which will require that the abutment 37 be placed still nearer the lower end of the slot. The slot 35 is intended for a single nickel and the abutment 37 is consequently positioned at a substantially higher point of the slot, and this is also true of the slot 36 which will accommodate a dime. In addition the abutments are vertically spaced so that a coin will be retained in position so as to intersect a transverse slot 38 formed in the vertical wall 21. The slots 33 to 36 open upon the outer wall of the body, as may be seen in Figure 9, at the left of the figure, and are only operative for retention of the coins when the drum or drums have been rotated to bring the receptacles into registry with the wall 21.

Four coin chutes 39, 40, 41 and 42 are provided, opening upon the top of the housing 10 (see Figures 1, 3, 4 and 6), and leading to a common position vertically of the housing so as to discharge coins into coin receptacles 32 of respective drums 18.

It may be necessary at times to vary the denomination of coins deposited and in order to accommodate the varying sizes of coins, I provide a selector 43, shown in Figures 10, 11, and 12. A selector is employed in conjunction with each coin chute, positioned preferably at the upper end of the chutes, immediately beneath the top wall of the housing, as shown in Figure 10. The selector consists of spaced bars 44 slidably supporting selector plates 45, the latter having coin slots 46 of differing lengths, arranged in progressive parallel, staggered relation along the length of the plates. The distance between the bars 44 and the top wall of the housing is such as to frictionally, yet slidably hold the plates 45 in an adjusted position. The coin slots are so arranged that only one slot will clear the support bars 44 when the plate is adjusted longitudinally with respect to the coin chute.

In order that the drums 18 may be rotated manually, exteriorly of the housing, an operating rod 47 is employed for each drum, attention being directed particularly to Figures 4, 5, 8 and 18 for the construction thereof. The rods 47 extend inwardly of the housing, at right angles to the vertical axis of the spindle 17, positioned outwardly of the periphery of the drums 18. Each rod 47 consists of a pair of sections detachably and adjustably connected by a sleeve member 48. One end of the rod is threadedly engaged in the sleeve, while the other section of the rod is provided with a plurality of longitudinally spaced notches 49 for accommodation of a set screw 50 carried by the sleeve 48. By this construction the length of the rod may be readily adjusted, as may be found necessary. The rods 47 each include an operating knob 51 exteriorly of the housing, and a right angularly extended hook member 52. The hook member 52 is extended toward the drums and through a respective slot 38 of the wall 21 and coin receptacle, so as to project a substantial distance into a respective coin receptacle. The hooks 52 will rest upon the lower edge of the slots 38 to a degree, but the main support for the rods will be supplied by a housing 53 secured to a wall of the main housing 10. In order that the rods 47 will be maintained in normal position, a helical spring 54 is positioned upon each rod, within the housing 53 having bearing engagement between a collar 55 and a portion of the housing 53.

From the description thus far given, it will be apparent that if coins are deposited in a given coin chute 39—42, the coin or coins will pass down and come to rest within the proper slots 33, 34, 35 or 36 of one of the coin receptacles 32, as the case may be, and such coin or one of the coins will lie directly in the path of the hook member 52. Now, if the rod is pulled upon, the associated drum will be caused to rotate until one of its compartments, defined by the partition walls 31 comes into registry with the opening 29, allowing the paper or magazine to drop to the opening 30 where it may be obtained by the purchaser. When the drums 18 are so rotated, the coin receptacles 32 will have moved a distance so as to clear the doors 23, allowing the coin or coins therein to drop through the open side of the receptacles into a discharge chute 41', the chute conducting the coin or coins to a collection receptacle 42a.

Obviously, it is necessary to have some means for regulating the degree of rotation of the drums, since it is essential that the coin receptacles 32 come to rest in absolute registry with the coin chutes. In the present instance, each of the drums 18 is provided with an annular brake drum 56 (see Figure 5) about which there is a contractile brake band 57. The brake bands 57 are of the split type, having opposed ears 58 provided with threaded apertures receiving a threaded shaft 59. By adjusting the shaft 59 the degree of braking action may be varied in a manner to obtain registry between the coin receptacles and the coin chutes.

While I have shown and specifically described the invention, this is by way of illustration only, and I consider as my own all such modifications in structure as fairly fall within the scope of the appended claim.

I claim:

In a vending machine, a housing, a drum

revolubly mounted within the housing, said drum having a plurality of compartments and an open bottom, a fixed plate beneath the drum having a discharge opening, a discharge opening formed in the housing in communication with the discharge opening of the fixed plate, a coin chute for the drum, said coin chute including a coin selector means consisting of a plate member adjustable across the coin chute, said plate having slots of different dimensions to accommodate coins of different denominations when a given slot is adjusted over the coin chute, a coin receptacle for each compartment of the drum arranged to receive coin from the coin chute when brought successively into position therebeneath, said coin receptacles each having an open side and a plurality of coin slots one of which is in registry with the selected slot in the plate of the coin selector means for receiving coin from the latter, said fixed plate having an upstanding wall for closing the open side of the coin receptacles when said coin receptacles are moved successively into coin receiving position beneath the coin chute, the wall including a manually releasable door, a coin return chute disposed beneath the door, the upstanding wall of the fixed plate having a slot arranged to intersect the coin slots of the coin receptacles, an operating rod for the drum positioned exteriorly of the housing and having a hook member positioned to traverse the slot of the upstanding wall, whereby to engage a coin deposited in a selected slot of a coin receptacle for rotating the drum.

JOSEPH JOHN CUBETE.