Sept. 29, 1953 R. I. N. WEINGART 2,653,760

TICKET STACKING RECEPTACLE

Filed May 4, 1951 4 Sheets-Sheet 1

Fig. 1

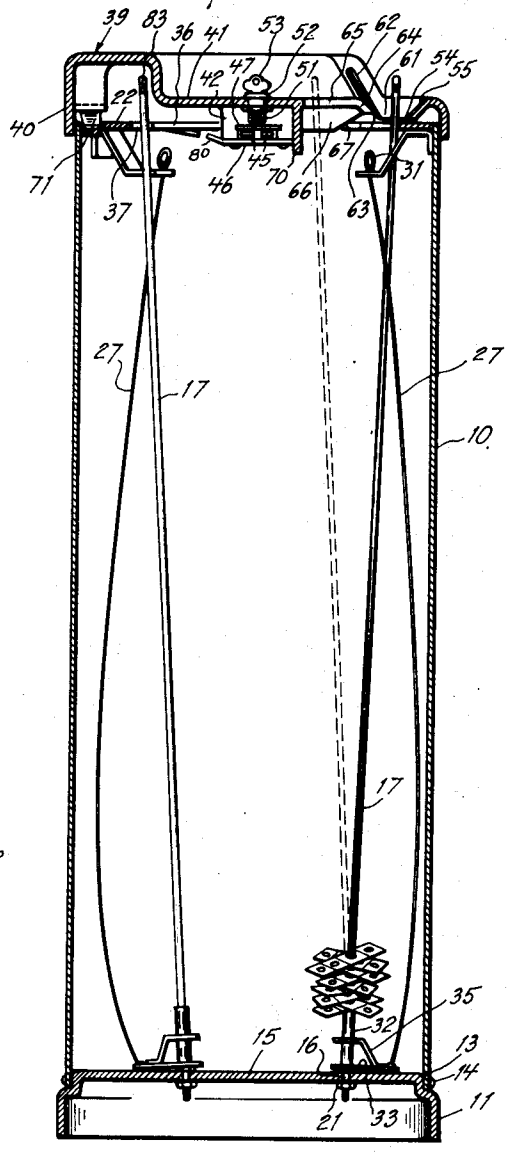
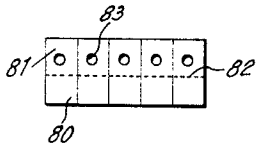


Fig. 7



INVENTOR
RICHARD I.N. WEINGART
BY
John P. Chandler
his ATTORNEY

Sept. 29, 1953 R. I. N. WEINGART 2,653,760

TICKET STACKING RECEPTACLE

Filed May 4, 1951 4 Sheets-Sheet 2

Fig. 2

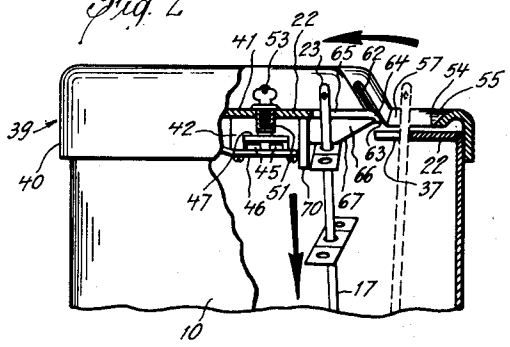
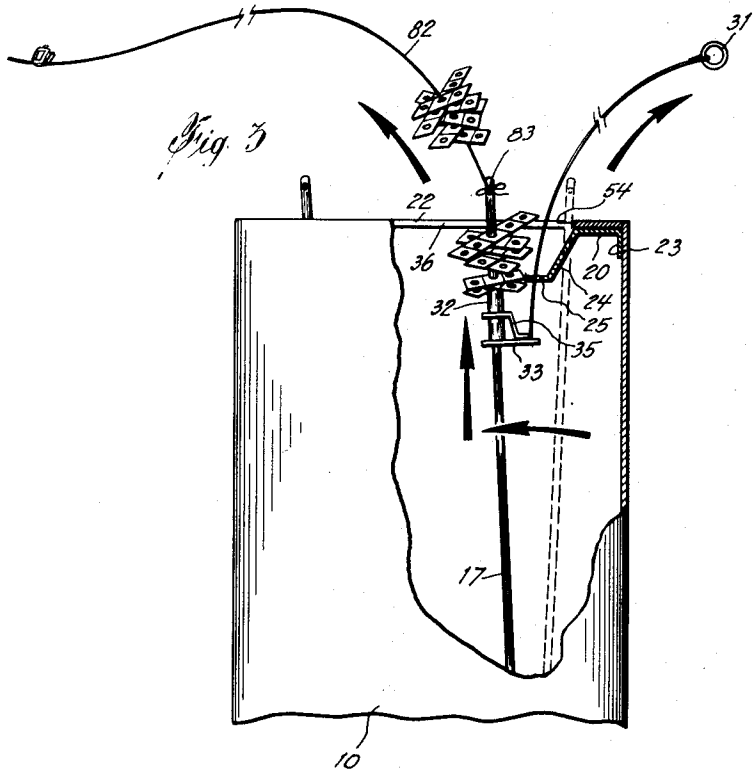


Fig. 3



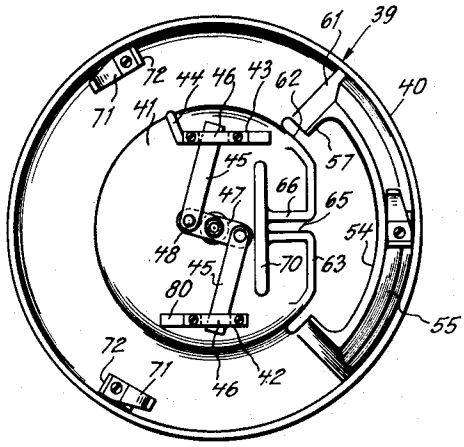
INVENTOR
RICHARD I.N. WEINGART
BY
John P. Chandler
Jr.
ATTORNEY

Sept. 29, 1953 R. I. N. WEINGART 2,653,760

TICKET STACKING RECEPTACLE

Filed May 4, 1951 4 Sheets-Sheet 3

Fig. 5



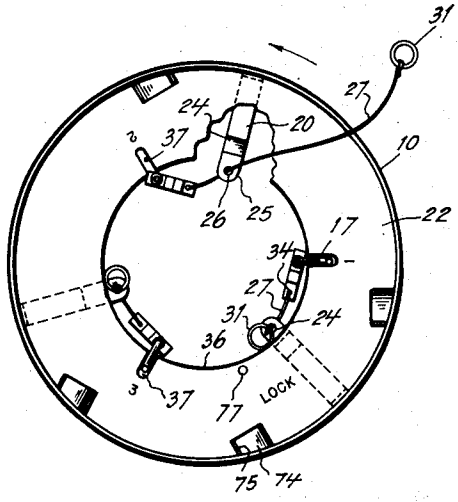
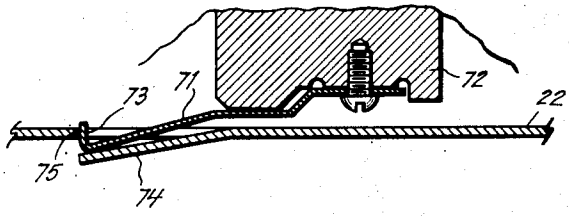


Fig. 4

Fig. 6



INVENTOR
RICHARD I. N. WEINGART

BY
John P. Chandler
his ATTORNEY

Sept. 29, 1953 R. I. N. WEINGART 2,653,760

TICKET STACKING RECEPTACLE

Filed May 4, 1951 4 Sheets-Sheet 4

Fig. 9

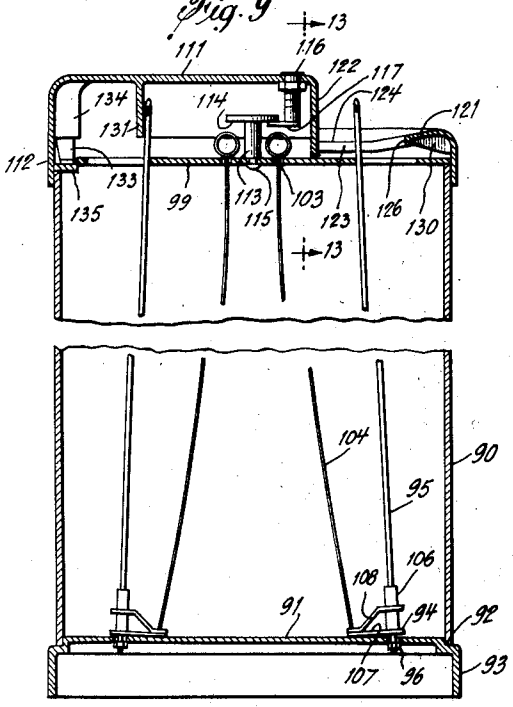


Fig. 10

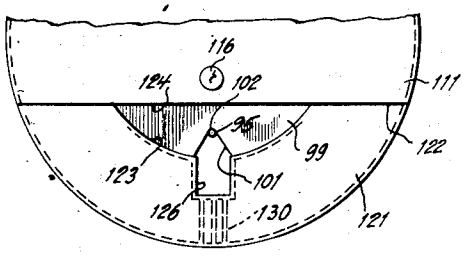


Fig. 11

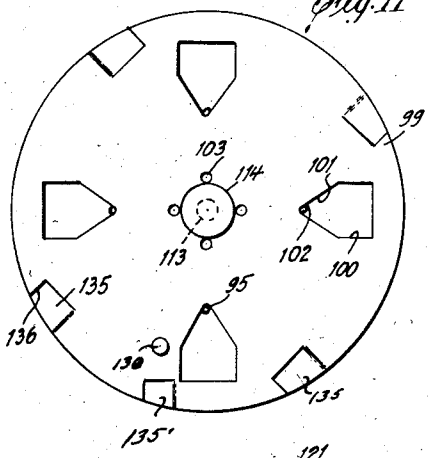


Fig. 8

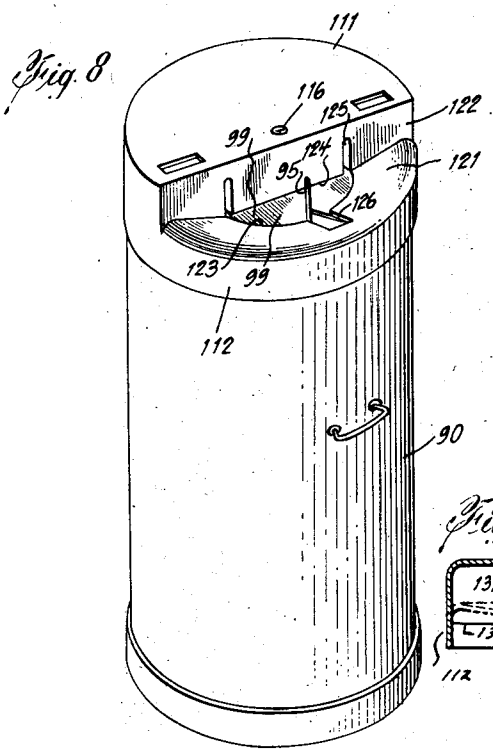


Fig. 12

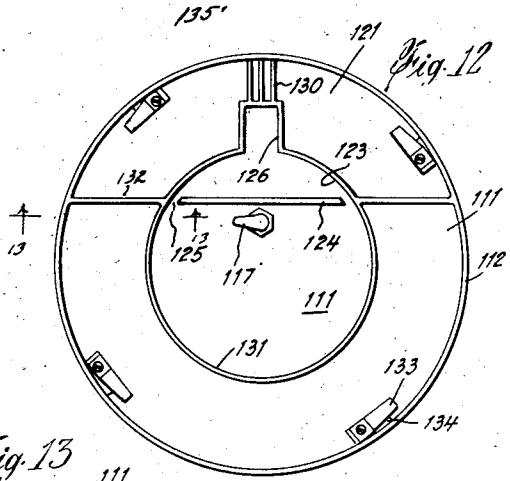
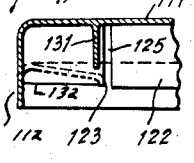


Fig. 13



INVENTOR.
RICHARD I.N. WEINGART
BY
John P. Chandler
his ATTORNEY

Patented Sept. 29, 1953

2,653,760

UNITED STATES PATENT OFFICE

2,653,760

TICKET STACKING RECEPTACLE

Richard I. N. Weingart, New York, N. Y.

Application May 4, 1951, Serial No. 224,597

9 Claims. (Cl. 232—8)

1

This invention relates to ticket receptacles and relates more particularly to a novel apparatus designed primarily for use in motion picture theatres wherein a two part ticket is employed. One part is separated from the ticket by the ticket collector and returned to the patron and the other part, which is formed with a central hole, is deposited on a spindle, thus allowing the ticket to drop into the receptacle wherein it is inaccessible to the ticket collector.

In order to prevent re-selling of tickets and other acts of collusion between the ticket seller and the ticket collector, it is desirable that the ticket stubs retained for the auditor's inspection maintain substantially the same relative order as their order of sale. Inasmuch as the tickets are numbered consecutively this result is readily achieved if the tickets impaled on the spindle are not disturbed prior to examination, and if there is any marked variance in their order of application to the spindle the irregularity is readily detected.

It is an object of the present invention to provide a novel apparatus having plural ticket spindles, only one of which is accessible at one time, and wherein the tickets which have been deposited on the spindle are inaccessible after they have dropped by gravity below the upper wall of the housing.

Another object of the invention is to provide an improved ticket stacking device wherein the cover section is rotatable relative to the housing, thus exposing the next spindle to view to receive the tickets.

A further object of the invention is to provide novel means whereby the ticket collector may rotate this cover to position a succeeding spindle for application of the tickets and wherein the cover becomes automatically locked relative to the housing when the cover has been rotated to a predetermined point and when this has been done no more tickets may be applied to the spindle. The cover can be rotated to this locked position whether the spindles are filled with tickets or not. At no time can one not having a key to the housing, tamper with the contents.

In the drawings:

Fig. 1 is a central vertical section taken through an apparatus embodying the present invention;

Fig. 2 is a broken view partially in section of the upper portion of the apparatus with the cover in place;

Fig. 3 is a broken view partially in section of the upper end of the apparatus with the cover removed and showing the method of removing tickets from the spindles;

2

Fig. 4 is a top plan view of the apparatus with the cover removed and a portion of the upper wall broken away;

Fig. 5 is a plan view of the lower surface of the cover;

Fig. 6 is a broken section of the pawl arrangement for positioning the cover in one of its stations;

Fig. 7 is a plan view of a ticket strip including five interconnected tickets;

Fig. 8 is a perspective view of an apparatus which is a modified form of the present invention;

Fig. 9 is a central, vertical, broken section taken through such modified form;

Fig. 10 is a top plan view;

Fig. 11 is a top plan view of the apparatus with the cover removed;

Fig. 12 is a bottom plan view of the cover;

Fig. 13 is a broken section taken on line 13—13 of Fig. 12.

The apparatus of the present invention includes a generally cylindrical vertically disposed housing 10 which is mounted on a circular base 11 formed with an annular seat 13 to receive the lower end of the housing. Screws or rivets 14 secure the housing in the base.

The base forms a lower wall 15 for the housing and there are formed in the lower wall openings 16 which are equally spaced from each other and from the center, three of such openings, one for each spindle, being shown. The openings are inclined outwardly from the vertical. The spindles 17 are threaded at their lower ends to receive nuts 21 above and below the wall for rigidly supporting the spindles in such openings. Because of the outward inclination of the openings, the spindles, preferably formed from spring steel, are biased outwardly at their upper ends for a purpose to be described. Alternatively, the holes could be vertical and the lower ends of the spindles slightly bent to give the same result.

A disc 22 is rigidly mounted flush with the upper edge of the housing by means of angle brackets whose vertical portions 23 are secured to the housing and whose horizontal portions 20 form a seat for the disc. These brackets also have downwardly inclined portions 24 and inner terminal portions 25 formed with openings 26. A cable 27 passes through such opening and has a ring 31 at its upper end. At its lower end it is secured to a ticket remover comprising a tube 32 carried at the lower end of the spindle, a base portion 33 having a hole 34 for the cable and an angle bracket 35.

The disc is formed with a central opening 36

and equally spaced slots 37 leading outwardly therefrom, one to receive each spindle, and the slots are radially aligned with the lower terminals of the spindles. Because of the outward bias of the spring spindles they engage the inner terminals of the slots and when such upper ends are moved toward the center under a bending stress, they snap back into the slots when the bending stress is released.

The cover 39 is preferably formed as a casting and has a downwardly extending annular flange 40 which encloses the upper edge of the housing. The cover has a downwardly recessed central portion 41 which is generally circular in shape. A boss 42 extends downwardly from the lower surface of the central section on one side of the center and another boss 43, formed with a radial extension 44 is disposed on the other side of the center. Both bosses have slots on their lower surfaces which receive locking bolts 45 which are slidably mounted in said slots and which are prevented from falling from the slots by plates 46 secured on the lower surfaces of the bosses. When the bolts are moved radially outwardly, they engage the underside of disc 22 adjacent the central opening and prevent removal of the cover. They are moved outwardly by means of a lever 47 pivotally connected at 48 at its outer terminals to the inner terminals of bolts 45. At its center, lever 47 is secured to the lower end of a cylinder 51 mounted in a lock housing 52. A removable key 53 passing into the upper end of the cylinder permits rotation of the lever to lock the cover to the housing. This lock is preferably of the type wherein the key can be removed only when the parts are in locked position.

The cover is provided with an opening defined at its outer edge by a curved section 54 and leading forwardly from such edge is an upwardly inclined surface 55, lying at an angle of about 45° from the vertical. At the opposed ends of curved edge 54 are short radial edges 57 formed at the lower end of diagonal walls 61 whose inner edges have vertical slots 62 through which the upper ends of the spindle pass as the cover is rotated relative to the cylindrical housing.

Opposite the curved edge 54 is a straight edge 63 at the forward part of recessed central portion 41. It will be noted from an examination of Figs. 1 and 2 that edge 63 lies on a plane slightly above that of disc 22 for a reason to be pointed out. The surface behind edge 63 is bevelled upwardly as shown at 64. A radial slot 65 leads inwardly from edge 63. On the lower surface of central portion 41, on the opposite side of slot 65, there are formed walls 66 and to the rear of such slot there is formed a relatively deep baffle 70. The forward sections of the lower edges of walls 66 are inclined as shown at 67.

The cover is arranged to be rotated in a counterclockwise direction relative to the casing, as shown in Fig. 4, and for the purpose of locating the cover in such position that a spindle is aligned with one of slots 37. Pawls 71 formed from spring steel are mounted at the lower ends of bosses 72 spaced equidistant adjacent the annular flange. One of such pawls is secured centrally relative to curved edge 54 and no mounting boss is required at this point because of lower elevation of the position of the cover. Each pawl is formed with an upturned shoulder 73 and the pawl is received in a detent element comprising a downwardly struck out portion 74 leaving an edge 75 against which shoulder 73 rests.

The upper surface of disc 22 has the number "1," "2" "3" imprinted adjacent the respective slots 37 and between the number 3 slot and the number 1 slot is the notation "Lock" and adjacent such notation is a stop 77.

The tickets used in connection with the instant device include a patron's portion 80 and a stub portion 81 separated by a perforated or other weakened line 82. Stub portion 81 has a hole 83 therein. The several tickets are all originally connected in a continuous strip and the patron buys 1, 2, 3 or more depending upon the size of his party and the ticket issuing machine cuts off the designated number from the roll.

The cover is initially positioned so that slot 65 is aligned with slot 37 in the number 1 position. In this position all three of the ratchets are disposed within the detents. The upper end of the number one spindle is alone exposed and rests against the inner end of slot 37. In the case of a party of five, the patron presents the ticket strip of Fig. 7 to the ticket collector who separates the stub 81 from the tickets along perforated line 82, returns portion 80 to the patron, and then places portion 81 on the exposed section of disc 22 with the upper end of the spindle passing through any one of holes 83, preferably a central one. The spindle is now moved rearwardly into slot 65 in the cover and the ticket passes under edge 63 which, as was earlier pointed out, is disposed above the plane of disc 22. The ticket no longer having the support of disc 22 drops down the spindle. The inclined forward edges 67 of spaced walls 66 act as a stripper to aid the tickets in this downward travel. If the inner edge of the ticket strip is not substantially parallel with inner edge 63 of the cover opening, the inner edge of the strip contacts baffle 70 and by the time the spindle has moved to the inner end of slot 65 the ticket strip has been moved to a parallel position with reference to edge 63 and the ticket drops.

Although the tickets are all parallel with the forward face of baffle 70 when they drop, they rotate as they fall and assume various radial positions at the bottom (Fig. 1). When the first spindle is filled the cover is manually rotated to expose the number 2 spindle. There is nothing to prevent this forward rotation since the inclined portions of the ratchets 71 simply ride up the inclined surfaces of the detents 74. The cover does not become locked against forward rotation until the number 3 spindle has been passed and the collector is in each instance aware of the proper place to stop rotation when he hears the pawls drop into the detents. Also slots 37 and 65 become aligned at each one of the stations.

After the third spindle is filled the ticket collector rotates the cover further about one-half of one increment at which time radial extension 44 of boss 43 contacts stop 77, preventing further forward rotation. Also a pawl drops into an intermediate detent 74 adjacent stop 77, thus preventing rearward rotation. Thus all the spindles are covered and the housing is fully locked. Access to the impaled tickets is impossible because of walls 66 on opposite sides of slot 65.

If the spindles are filled almost to overflowing, inclined extensions 69 of plates 46 push the tickets down during rotation of the cover. To remove the tickets from a spindle the lock is manipulated to unlocked position, thereby retracting bolts 45, and the cover is removed. A cord 82 is now passed through an opening 83 at the upper end of the spindle. Cord 27 is drawn upwardly, drawing

with it ticket remover 33 and the tickets pass onto the cord 82. The ends of this cord are now tied together and the tickets are ready for delivery to the office.

The modified form of the invention shown in Figs. 8 to 12, inclusive, is largely similar to the first embodiment except that the spindles, four in number instead of three, are biased inwardly instead of outwardly.

The apparatus includes a cylindrical housing 90 and a lower wall 91 formed with an annular seat 92 to receive the housing and an annular flange 93. Holes 94, equally spaced from the center and from each other, receive the lower ends of spindles 95. These lower end portions are threaded and are of reduced diameter so as to form a shoulder which engages the upper surface of lower wall 91. The spindles are secured on the base wall by nuts 96. The holes are inclined toward the center so that the upper ends of the spindles have a similar inward inclination. Alternatively, the holes may be vertical and the lower ends of the spindles be suitably bent to give the same result.

An upper wall 99 is suitably secured on the housing and has rectangular openings 100 provided with inner extensions 101 of triangular shape and the upper ends of the spindles are urged against the innermost corner section 102. The upper wall further has four holes 103 for the ticket-stripping cables 104 which have rings 105 at their upper ends. At their lower ends the cables are secured to ticket strippers comprising a tube 106 carried concentrically of each spindle, a base 107 and a bracket 108.

A cover 111 having an annular flange 112 is mounted for rotation on the upper end of the housing and for the purpose of securing the cover against unauthorized removal while permitting rotation relative to the housing, a post 113 having an annular flange 114 is mounted centrally of upper wall 100 by means of a headed pin 115 which may be formed integrally with the post. A lock 116 is secured centrally of the cover and has a rotatable bolt 117 arranged to underlie flange 114 when the parts are in locked position. Thus the cover may be rotated but not removed, unless unlocked.

The rotatable cover is of special construction. On a plane below upper horizontal section 111 it has a lower wall section 121 and a vertical wall 122 connecting the upper and lower walls. The lower wall section has an arcuate opening defined by a curved edge 123 and a straight edge 124 at the lower end of the vertical wall. The latter has vertical slots 125 at opposite ends of the straight edge 124, and curved edge 123 has a central, radial slot 126 leading toward the outer periphery of the cover.

Spaced ribs 130 extend outwardly from the outer end of slot 126 on the lower surface of lower wall section 121. The lower edges of these ribs are upwardly and inwardly inclined so as to obtain a stripping action if the ticket does not readily fall due to gravity.

An annular flange 131 is formed on the lower surface of upper wall portion 111 of the cover to prevent undue movement of the unexposed spindles and also to prevent tickets from falling off these unexposed spindles if the housing should be inadvertently turned upside down.

This flange is continuous until it reaches slot 126 at which point it proceeds outwardly and across the outer end of the slot although in that section which is disposed forwardly of wall 124 it is of lesser depth than in the rear portion.

Wall 124 continues to the perimeter of the cover as shown at 132.

For the purpose of locating the spindles successively in their ticket applying stations, the lower surface of the cover is provided with spaced pawls 133 which are mounted on bosses 134 and which drop into detents 135. These detents are struck downwardly from the metal forming upper fixed wall 99 and thus leave a shoulder 136 against which pawls rest to prevent reverse rotation.

There are four equally spaced detents 135 so that on each increment of rotation in a counterclockwise direction all four pawls drop into detents. There is also one additional detent 135' and adjacent such detent is a stop pin 138 which encounters wall section 132, thus stopping rotation of the cover and also preventing reverse rotation thereof. In this position two of the spindles are exposed but these spindles are inaccessible from outside of the housing.

While two forms or embodiments of the invention have been shown and described herein for illustrative purposes, and the construction and arrangement incidental to two specific applications thereof have been disclosed and discussed in detail, it is to be understood that the invention is limited neither to the mere details or relative arrangement of parts, nor to its specific embodiments shown herein, but that extensive deviations from the illustrated forms or embodiments of the invention may be made without departing from the principles thereof.

I claim:

1. A closed ticket receptable provided with plural spindles which receive pre-punched tickets in impaled relation, the receptacle including a generally cylindrical housing provided with a lower wall, a fixed upper wall having spaced openings for the upper ends of the spindles, and a cover mounted for rotation relative to the upper wall and having a recessed portion on one side thereof, an opening in said recessed portion exposing a portion of the upper wall, and a slot extending radially from the opening, the spindles being mounted on the lower wall in spring biased relation, a wall section of the cover extending down to the recessed portion and having openings through which the spindles may pass as the cover is rotated, cooperating pawl and ratchet means between the cover and upper wall for locating the cover in position wherein the several spindles are successively aligned with the opening in the recessed portion.

2. A closed ticket receptacle provided with plural spindles which receive pre-punched tickets in impaled relation, the receptacle including a housing provided with fixed lower and upper walls, the latter having radial slots therein which receive the upper ends of the spindles, and a cover mounted for rotation relative to the upper wall, the spindles being mounted at their lower ends on the lower wall in spring biased relation so as to cause the spindles to be urged against the outer ends of the slots, the cover having a downwardly recessed portion and an arcuate opening exposing a portion of the upper wall and a radial slot leading inwardly from the opening which is successively aligned with the several slots in the upper wall as the cover is rotated to an adjusted, fixed position.

3. A closed ticket receptacle provided with plural spindles which receive pre-punched tickets in impaled relation, the receptacle including a generally cylindrical housing provided with a lower wall, a fixed upper wall having a central

opening and spaced slots extending radially outwardly therefrom and which receive the upper ends of the spindles therein, and a cover mounted for rotation relative to the upper wall, the spindles being mounted at their lower ends on the lower wall in spring baised relation so as to cause the spindles to be urged against the outer ends of the slots, the cover having a central downwardly recessed portion and an opening on one side of said portion exposing a portion of the upper wall and a radial slot leading inwardly from the opening which is successively aligned with the several slots in the upper wall as the cover is rotated to an adjusted, fixed position.

4. A closed ticket receptacle provided with plural spindles which receive pre-punched tickets in impaled relation, the receptacle including a housing provided with a lower wall, a fixed upper wall having a central opening and spaced slots extending radially outwardly therefrom and which receive the upper ends of the spindles therein, and a cover mounted for rotation relative to the wall, means for mounting the spindles at their lower ends on the lower wall so as to cause the spindles to be urged against the outer ends of the slots, the cover having a radial slot leading inwardly from the opening which is successively aligned with the several slots in the upper wall as the cover is rotated to an adjusted, fixed position, a lock for securing the cover to the upper wall while permitting forward rotation of the cover, and a stop limiting forward rotation of the cover after the last spindle position has been passed.

5. A closed ticket receptacle provided with plural spindles which receive pre-punched tickets in impaled relation, the receptacle including a generally cylindrical housing provided with a lower wall, a fixed upper wall having a central opening and spaced slots extending radially outwardly therefrom and which receive the upper ends of the spindles therein, and a cover mounted for rotation relative to the upper wall, the spindles being mounted at their lower ends on the lower wall in spring biased relation so as to cause the spindles to be urged against the outer ends of the slots, the cover having a central, downwardly recessed portion, an arcuate opening on one side of said portion exposing a portion of the upper wall and a radial slot leading inwardly from the opening which is successively aligned with each of the several slots in the upper wall as the cover is rotated to an adjusted, fixed position, the opening being only of such length as to expose not more than one spindle at a time, a downwardly extending baffle at the rear of said radial slot and inclined walls on opposite sides thereof and whose forward edges are upwardly inclined, plural ratchets and detents, respectively, on the cover and upper wall for positioning the cover relative to said upper wall and preventing reverse rotation thereof, a lock for securing the cover to the upper wall while permitting forward rotation of the cover, and a stop limiting forward rotation of the cover after the last spindle position has been passed.

6. A closed ticket receptacle provided with plural spindles which receive pre-punched tickets in impaled relation, the receptacle including a generally cylindrical housing provided with a lower wall, a fixed upper wall having spaced openings for the upper ends of the spindles, and a

cover mounted for rotation relative to the upper wall and having a recessed portion on one side thereof, an opening in said recessed portion exposing a portion of the upper wall, and a slot leading outwardly from the opening.

7. A closed ticket receptacle provided with plural spindles which receive pre-punched tickets in impaled relation, the receptacle including a housing provided with a lower wall, a fixed upper wall having spaced openings for the upper ends of the spindles, and a cover mounted for rotation relative to the upper wall and having a recessed portion on one side thereof, an opening in said recessed portion exposing a portion of the upper wall, and a slot leading outwardly from the opening, the spindles being mounted on the lower wall in spring biased relation so as to cause the spindles to be urged against the inner ends of the upper wall openings, cooperating pawl and ratchet means between the cover and upper wall for locating the cover in position wherein the several spindles are successively aligned with the opening in the recessed portion.

8. A closed ticket receptacle provided with plural spindles which receive pre-punched tickets in impaled relation, the receptacle including a housing provided with a lower wall, a fixed upper wall having spaced openings for the upper ends of the spindles, and a cover mounted for rotation relative to the upper wall and having a recessed portion on one side thereof, an opening in said recessed portion exposing a portion of the upper wall, and a slot leading outwardly from the opening, means for mounting the spindles on the lower wall so as to cause the spindles to be urged against the inner ends of the upper wall openings, and wall portions extending downwardly from the edges of the slot.

9. A closed ticket receptacle provided with plural spindles which receive pre-punched tickets in impaled relation, the receptacle including a generally cylindrical housing provided with a lower wall, a fixed upper wall having spaced openings for the upper ends of the spindles, and a cover mounted for rotation relative to the upper wall and having a recessed portion on one side thereof, an opening in said recessed portion exposing a portion of the upper wall, and a slot leading outwardly from the opening, the spindles being mounted on the lower wall in spring biased relation so as to cause the spindles to be urged against the inner ends of the upper wall openings, a wall section of the cover extending down to the recessed portion and having openings through which the spindles may pass as the cover is rotated, cooperating ratchets and detents between the cover and upper wall for locating the cover in positions wherein the several spindles are successively aligned with the slot in the recessed portion, and wall portions extending downwardly from the edges of such opening.

RICHARD I. N. WEINGART.

References Cited in the file of this patent

UNITED STATES PATENTS

Number	Name	Date
1,190,152	Gross	July 4, 1916
2,504,770	Weingart	Apr. 18, 1950
2,511,431	Dashkin	June 13, 1950
2,529,750	Weingart	Nov. 14, 1950