Sept. 9, 1941. D. D. CAMERON 2,255,538

VENDING MACHINE

Filed April 10, 1939 4 Sheets-Sheet 1

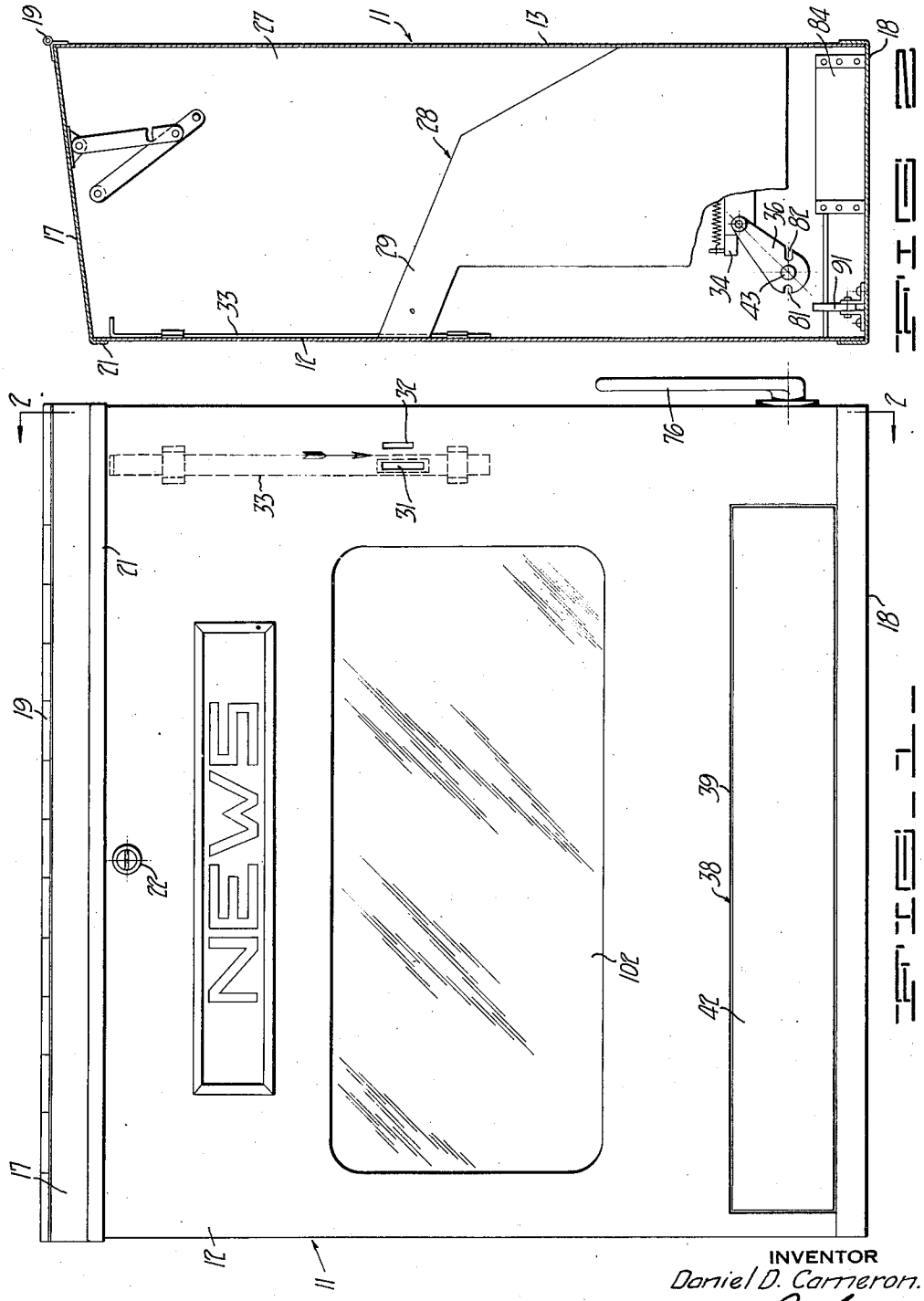


FIG. 1

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VENDING MACHINE

Filed April 10, 1939 4 Sheets-Sheet 2

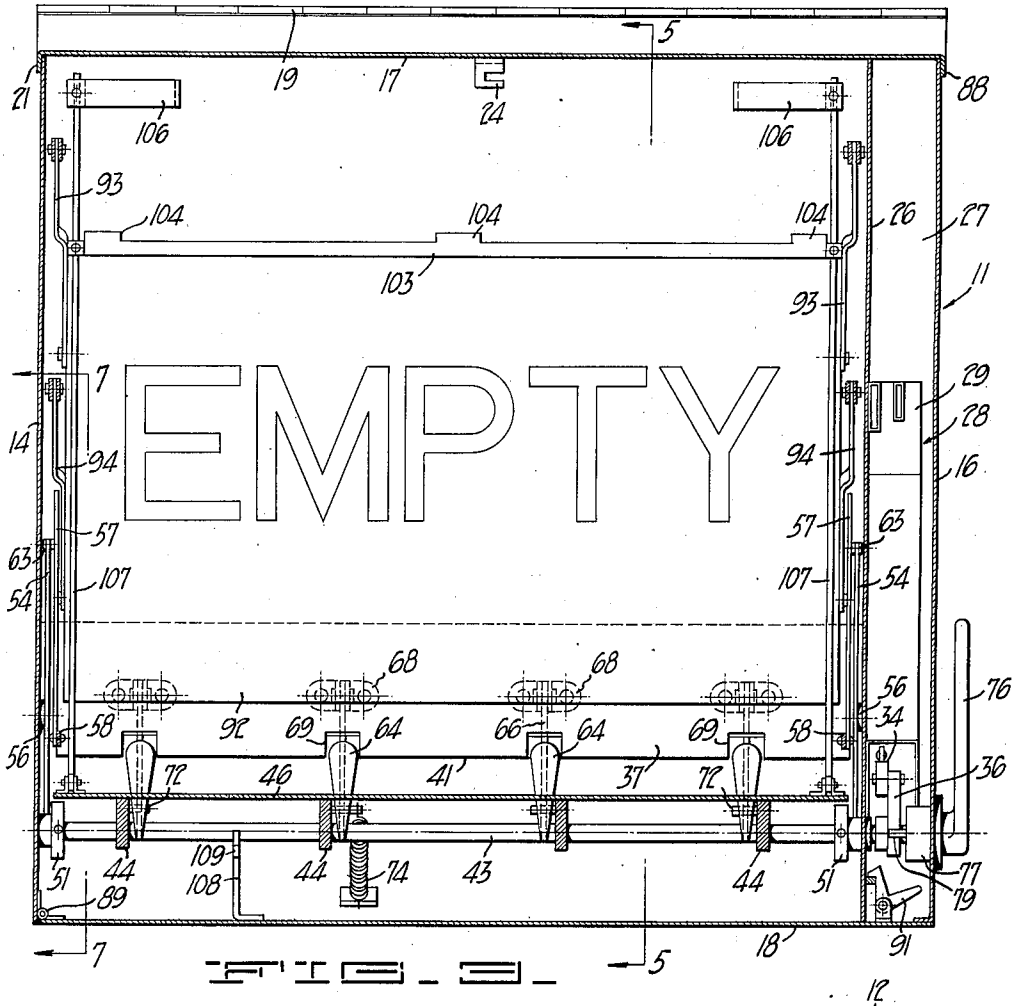


FIG. 3

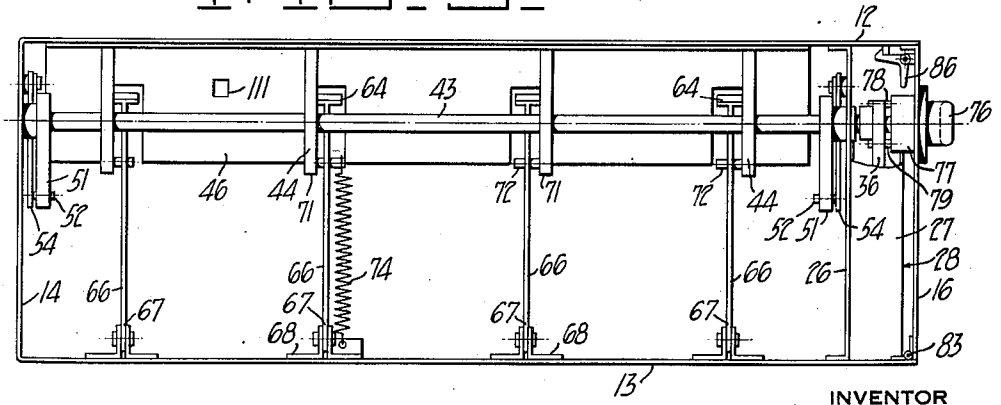


FIG. 4

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Sept. 9, 1941. D. D. CAMERON 2,255,538

VENDING MACHINE

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FIG. 6.

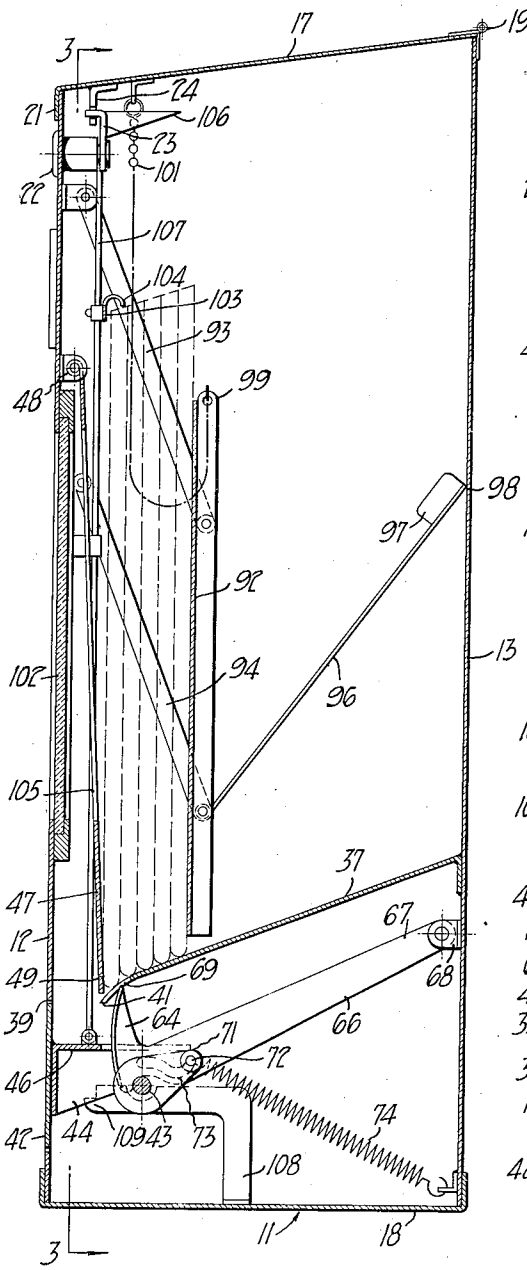
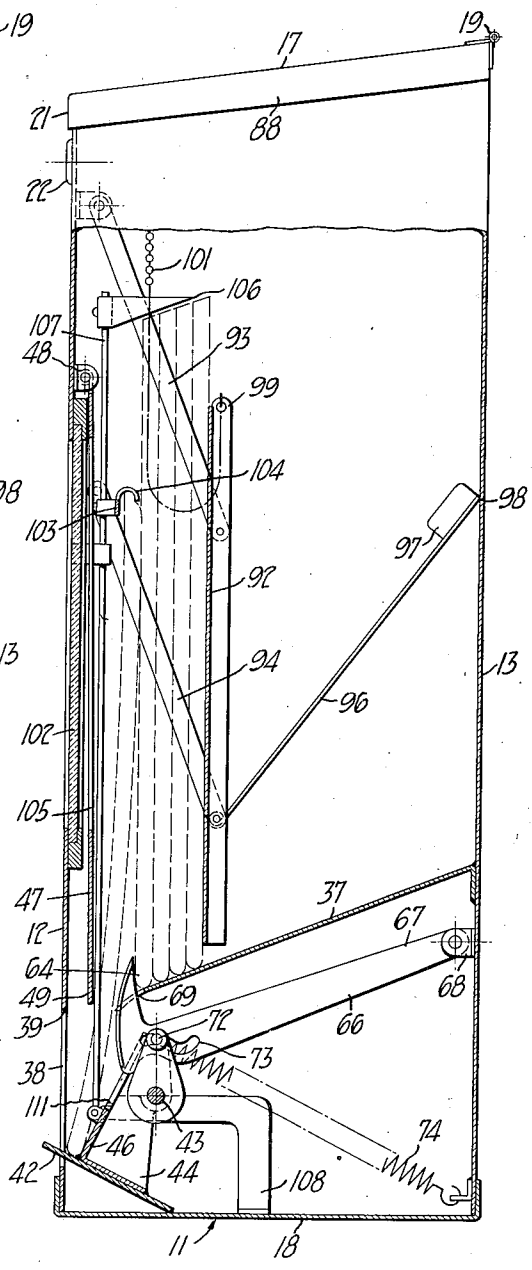


FIG. 8.



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Sept. 9, 1941. D. D. CAMERON 2,255,538

VENDING MACHINE

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FIG. 2

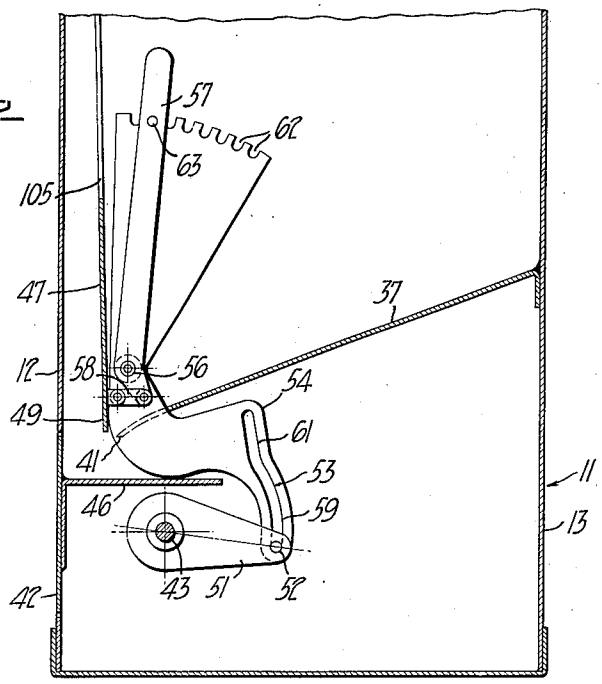


FIG. 3

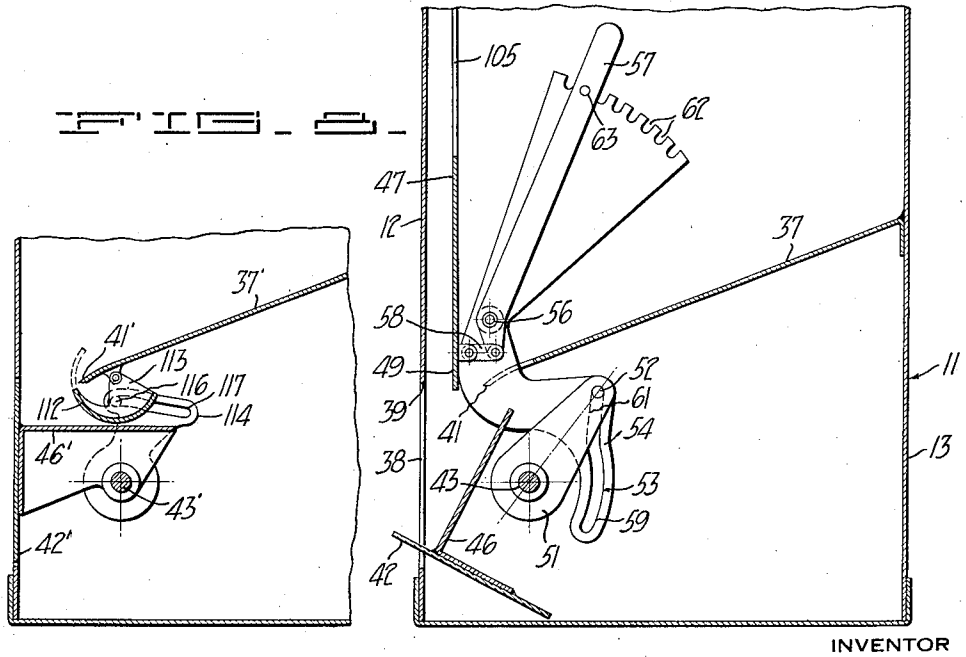


FIG. 4

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Patented Sept. 9, 1941 2,255,538

UNITED STATES PATENT OFFICE

2,255,538

VENDING MACHINE

Daniel D. Cameron, San Francisco, Calif.

Application April 10, 1939, Serial No. 267,019

13 Claims. (Cl. 312—58)

The invention relates to vending machines and more particularly to coin operated vending machines for dispensing newspapers and the like.

An object of the invention is to provide a vending machine of the character described which is adapted to receive a plurality of newspapers in regular folded form and which is provided with a positive operating mechanism for dispensing the newspapers one at a time without danger of tearing or mutilating the papers.

Another object of the invention is to provide a dispensing machine of the character above which may be quickly and readily adjusted to accommodate newspapers and similar articles of varying thicknesses, whereby the machine is rendered particularly useful in dispensing both daily and Sunday editions of newspapers, which ordinarily vary substantially in thickness. Also in this connection and as a further object of the invention, the machine is also constructed for operation by a plurality of coins of different denomination so that newspapers or the like of different cost may be readily dispensed.

A further object of the invention is to provide a vending machine of the character above which is so constructed that at no time during the delivery operation thereof will the interior newspaper compartment of the machine be accessible to the operator in any manner enabling a surreptitious release of additional newspapers for discharge from the machine.

A still further object of the invention is to provide a vending machine of the character described which may be quickly and simply loaded with newspapers by an attendant.

Yet another object of the invention is to provide a vending machine of the character above which is constructed of a minimum number of sturdily formed operating parts designed to afford a substantially unlimited period of life and a useful operation with minimum required attention and repair.

The invention possesses other objects and features of advantage, some of which, with the foregoing, will be set forth in the following description of the preferred form of the invention which is illustrated in the drawings accompanying and forming part of the specification. It is to be understood, however, that variations in the showing made by the said drawings and description may be adopted within the scope of the invention as set forth in the claims.

Referring to said drawings:

Figure 1 is a front elevation of a vending machine constructed in accordance with the present invention.

Figure 2 is a vertical sectional view of the machine taken substantially on the plane of line 2—2 of Figure 1.

Figure 3 is a front sectional view of the machine taken rearwardly of the front wall thereof substantially the plane of line 3—3 shown in Figure 5.

Figure 4 is a bottom view of the machine with the bottom cover plate thereof removed.

Figure 5 is a vertical sectional view of the machine taken substantially on the plane of line 5—5 of Figure 3.

Figure 6 is a cross sectional view similar to Figure 5, but showing the operating mechanism of the machine in a different position.

Figure 7 is a fragmentary vertical sectional view of the machine taken substantially on the plane of line 7—7 of Figure 3.

Figure 8 is a view similar to Figure 7, but showing the operating mechanism in a different position.

Figure 9 is a fragmentary vertical sectional view showing a modified form of construction.

The vending machine of the present invention as aforementioned, is particularly designed for dispensing newspapers, magazines and the like and comprises in brief a casing adapted for the receipt of a plurality of newspapers or the like in folded form, each positioned in the casing with the folded edge of the newspaper downward and with the several newspapers positioned in side-by-side relation from adjacent the rear wall to adjacent the front wall of the casing. The front wall of the casing is provided with an elongated delivery opening adjacent the bottom thereof and which is normally sealed by a closure carried by the casing and movable to and from a closed position across the opening. In combination with the foregoing is a manual operating means for moving the closure to open and closed position and which coacts with means for positioning the most forward newspaper for movement through the opening of the closure to hold the remainder of the newspapers away from the opening so as to insure their retention within the casing. Preferably, the manual operating means is normally held in locked position by a coin control mechanism which upon insertion of a proper coin, will release the operating means for movement.

With reference more particularly to the accompanying drawings, the vending machine comprises a casing 11, here shown formed of a front

wall 12, rear wall 13, end walls 14 and 16, and top and bottom walls 17 and 18. The top wall 17 is here in the form of a hinged cover which is pivoted along its rear edge by means of hinges 19 to the upper edge of the rear wall 13 and is preferably provided with a circumscribing flange 21 which engages around the upper edge of the casing in a closed position of the cover. Preferably, a key-lock 22 is provided on the front wall 12 adjacent the top thereof and is provided at the interior of the casing with a dog 23 which engages a depending lug 24 on the cover.

Mounted adjacent the end wall 16 across the interior of the casing from the front to the rear wall, is an inside end wall 26 which defines one end of the interior chamber provided by the casing and defines with the end wall 16 an end chamber 27 in which is mounted a coin control mechanism 28. The latter is formed in part with a coin chute 29 which extends forwardly and upwardly to a pair of coin receiving slots 31 and 32 in the front wall 12. As here shown, the slots are arranged for the receipt of 5¢ and 10¢ pieces representing the cost of daily and Sunday editions of a newspaper to be dispensed. It will be understood, however, that the mechanism may be designed to receive any desired coin or the like. In order to confine the operation of the vending machine to the use of one coin only, such as is desirable in dispensing Sunday editions of newspapers where only a 10¢ piece will be received, I mount on the interior side of the front wall a slide 33 which may be engaged adjacent its upper end and moved downwardly across the slot 31 to close the latter. The coin control mechanism may be of any desired construction and several standard types of coin controls now in common use may be used. For this reason the details of construction of the coin control mechanism are not particularized. It suffices that an operating part 34 of the coin control mechanism is normally locked against movement by the mechanism and released for movement upon insertion of a proper coin. In the present construction the member 34 is connected to an operating crank arm 36 which controls the manual operation of the present machine.

As above mentioned, the newspapers or the like are mounted in the casing with the newspapers in folded form and each arranged in a substantially vertical plane with the folded edge thereof downward and with the several newspapers positioned in side-by-side relation across the interior of the casing from adjacent the rear wall 13 to the front wall 12. In accordance with the present construction, the lower folded edges of the newspapers are supported upon a bottom plate 37 which extends substantially entirely across the bottom of the interior chamber and which in accordance with the present invention, slopes downwardly from the rear wall 13 to adjacent the front wall 12, so as to cause a natural gravitation of the newspapers forwardly of the casing. Provided in the front wall and extending substantially completely across the same adjacent the lower end thereof is a delivery opening 38, the top edge 39 of which is approximately horizontally aligned with the front edge 41 of the bottom plate 37. As will be best seen from Figures 5 and 6, the forward edge 41 of the bottom is spaced from the front wall horizontally by a distance somewhat greater than the thickness of a newspaper to be dispensed, so that the foremost newspaper may be passed between the bottom wall edge 41 and the front wall for movement out of the opening 38. A closure 42, here in the form of an elongated flat plate, is carried by the casing on the front wall for movement into and from a closed position across the opening 38. As here shown, the closure plate is pivotally mounted for rotation in the opening 38 about a horizontal axis, so that the closure upon swinging downwardly about its axis, as illustrated in Figure 6, will substantially clear the opening 38 without any substantial protrusion from the front of the casing. In the present construction the closure plate is so supported on a horizontal shaft 43 by means of a plurality of lugs 44 secured to the inner surface of the closure plate and extending rearwardly into engagement with the shaft 43. Preferably, a shelf-plate 46 is mounted on the rear side of the closure plate 42 and extends horizontally into the casing below the forward edge of the bottom wall 37 so as to receive a newspaper passed downwardly from the front edge 41 of the bottom and to swing the lower edge of the newspaper downwardly and outwardly through the opening 38 upon downward rotation of the closure plate.

In accordance with the present construction, a guard means 47 is mounted across the interior of the casing adjacent the forward edge of the bottom wall so as to prevent the release of a newspaper for movement onto the shelf 46 prior to the opening of the closure 42. This guard means is here in the form of a rectangular plate which is pivoted at its upper end 48 to the end walls of the casing and is positioned in the closed position of the closure with its bottom end 49 spaced from the forward edge 41 of the bottom wall by a distance less than the thickness of a newspaper to be dispensed. From this position the plate is rocked forwardly upon opening of the closure, so as to space the lower edge 49 thereof from the forward edge 41 of the bottom by a distance sufficient to allow the forward newspaper to drop through onto the shelf 46. Means for so moving the plate here include a pair of crank arms 51 (see Figures 7 and 8) mounted on the shaft 43 and which are provided at their outer ends with pins 52 engaged in guide slots 53 formed in lever plates 54 pivoted at 56 to the opposite end walls of the casing. A lever 57 pivoted at 56 coincident with each plate 54 and secured to the plate, is connected to the guard plate 47 by means of a link 58. The guide slot 53 is here provided with a curved portion 59 substantially arcuate about the shaft 43 and in which portion the pin 52 is initially engaged at the start of rotation from a closed position of the closure, whereby the plate 47 will remain substantially stationary during the initial period of rotation of the shaft. The curved portion 59 of the guide slot is joined to a linear portion 61 which coacts with the pin 52 to cause a rotational displacement of the plate 54 and the attached guard plate 47 during the final rotational movement of the shaft. Conversely, upon return movement of the shaft from an open position of the closure, the guard plate 47 moves relatively rapidly back towards the forward edge of the bottom wall and completes such movement prior to a complete movement of the closure 42.

In accordance with the present invention and as an important feature thereof, I arrange for an adjustable positioning of the guard plate 47 relative to the forward edge 41 of the bottom, so as to regulate the size of the space which is opened upon the forward rocking of the guard plate and hence regulate the size of a newspaper which may

be dispensed. Preferably, the space between the guard plate 47 and the forward edge 41 is maintained at a substantial minimum so as to positively prevent the next rearwardly disposed newspaper from passing into the discharge opening. As here shown, the adjustable positioning of the plate 47 is effected by changing the position of the lever 57 relative to the lever plate 54 and for this purpose I provide a plurality of openings or notches 62 in the plate 54 which are engaged by a pin 63 carried by the lever 57 for changing the position of the plate 47 relative to the plate 54. The lever may be moved relative to the plate by springing the lever away from the plate to disengage the pin and notches, and then rotated about its pivotal axis relative to the plate to a new adjusted position. If desired, the plate 54 may be calibrated in terms of the number of sheets of the newspaper to be dispensed, so as to facilitate the ready setting of the plate 47.

In order to prevent the rearwardly positioned newspapers from sliding forward and into the discharge opening after the withdrawal of the most forward newspaper, I provide means which is adapted to extend upwardly from the bottom wall during the period of discharge of the front newspaper and which is effective to engage the forward side of the next rearward newspaper and thereby positively hold the latter against forward movement into the discharge opening. In the present construction such means is embodied in the form of a plurality of detent members or hooks 64 which are formed at the forward ends of a plurality of lever arms 66 extending substantially horizontally from the rear wall 13 of the casing in the space therein below the bottom wall 37. The members 66 are pivoted at their rearward ends 67 to lugs 68 carried by the rear wall and are movable vertically so as to project the upstanding detent member 64 upwardly through slots 69 formed in the plate 37 adjacent the forward edge 41, so as to engage the detent members between the forward newspaper and the next rearward newspaper, as shown in Figure 6. Normally the detent members are positioned below the plane of plate 37, as shown in Figure 5, and are projected upwardly as shown in Figure 6, only upon opening of the door closure. Upon closing of the door the detent members again take their lowered position so as to allow the stack of newspapers to slide forwardly, thereby properly positioning the foremost newspaper in the stack for delivery. The detent members are so displaced in synchronism with the movement of the closure 42 by operatively connecting the links with the single operating shaft 43. This connection is effected by connecting the members 66 to the rearwardly disposed ends 71 of the closure plate lugs 44 by means of a pin 72 carried by each of the ends 71 of the lugs and which is engaged in a guide slot 73 formed in each of the members 66. Preferably, the guide slot is so curved as to produce an initial upward movement of the detent members 64 upon rotation of the shaft from a closed position of the closure 42, whereby these detent members will effectively stop any forward movement of the stack of newspapers at the beginning of the discharge operation. Also, slots 73 are formed to retain the detent members in elevated position during the latter part of the rotational movement of the shaft, so that on return movement from an open position of the closure the detent members will remain elevated until after the closure has been moved to adjacent closed position and the guard plate 47 returned to adjacent the forward edge of the bottom. Upon completion of the closing movement of the closure 42, the detent members are withdrawn to below the top surface of the bottom plate, thereby allowing the newspapers to shift forwardly.

A spring 74 connected to one of the pins 72 and to the rear wall of the casing normally serves to hold the closure member in closed position and to resiliently resist the opening of the same.

Means for rotating the shaft 43 is here embodied in the form of a crank handle 76 rotatably carried by the end wall 16 in alignment with the shaft 43 and provided at the interior of the wall 16 with an enlarged hub portion 77 formed with a pair of pins 78 and 79 engageable in recesses or notches 81 and 82 formed in the operating lever 36 attached to the shaft. As here shown, the end wall 16 is pivotally secured adjacent its rear side as by hinges 83 so that the end wall may be swung outwardly from the casing to obtain access to the coin control mechanism and particularly to a coin box 84 mounted on the bottom wall under the coin control mechanism for receiving coins inserted in the machine. A lock mechanism 86 is carried in part by the front wall 12 and an end wall 16 for retaining the end wall in locked position. Preferably, the end wall is lapped at its upper edge by a flange 88 depending from the end of the top wall 17 so that the end wall may be opened only after the top wall has been lifted, and in accordance with this arrangement the lock mechanism 86 is arranged for releasing exclusively from the interior of the casing.

Also preferably, the bottom wall 18 is pivotally secured to the casing, as here shown by hinges 89 located at the end wall 14 so that the bottom of the casing may be opened up for inspection, cleaning or repair of the various operating elements of the mechanism. A latch mechanism 91 carried on the bottom wall adjacent the end 16 is used to normally retain the bottom in closed position, and which mechanism is so arranged and located as to be inaccessible except after opening the end wall 16.

As an important feature of the present invention I incorporate in the machine an operating mechanism for constantly urging the stack of newspapers forwardly in the interior of the casing, so that the foremost newspaper will always be positioned for dispensing. Such means is here shown in the form of a backing member or plate 92 which is hingedly supported by a set of upper and lower links 93 and 94 from adjacent the front wall 12 for movement of the plate arcuately from adjacent the rear wall 13 to the front wall 12. Preferably, the links are of such a length and so connected to the plate 92 as to constantly support the latter in a substantially vertical plane parallel to the newspapers positioned in the casing. As will be understood, the weight of the plate 92 and the attached links normally cause the plate 92 to gravitate downwardly and forwardly against the newspapers. To assist in this movement I may attach to the rear side of the member 92 a lever arm 96 weighted at its outer end as at 97, and which is of a length adapted to cause the outer or rear end 98 thereof to ride downwardly against the rear wall 13 and thereby assist in the holding of the plate 92 against rearward movement in each of its forwardly advanced positions, as newspapers are dispensed. Preferably, the plate 92 is automatically lifted to a rearwardly retracted rotating position

upon opening of the top cover 17. This is here effected by connecting the upper end 99 of the plate to the under side of the cover 17 by means of a flexible cord 101 which is operative upon lifting of the cover 17 to also lift the plate. Preferably, the front wall of the casing is provided with a window 102, here in the form of a plate glass panel, properly located in front of the newspaper so as to clearly indicate to the user of the machine the name of the newspaper being dispensed and also to attractively display headlines and other captions carried by the newspaper. The guard plate 47 located at the front of the window is formed with an opening 105 in registration with the window to expose the newspaper behind the plate. In accordance with the present construction, the plate 92 in its downwardly and advanced position, lies directly behind the window 102 and the opening 105, and preferably the word "Empty" or the like is placed on the front surface of the plate so that after delivery of the last paper the plate will be prominently displayed in the window to notify an expectant user that the supply of papers is exhausted.

As a further feature of the present invention I provide means for positively urging the foremost newspaper downwardly and out of the operating opening upon proper operation of the device, and which further serves to hold the adjacent rearward newspapers down against the bottom plate behind the detent members 64, so as to securely lock these rearwardly disposed newspapers against being lifted over the detent members or otherwise sprung loose for movement into the discharge opening. This means as here shown, consists of a horizontal bar construction 103 mounted adjacent the forward wall at the interior of the casing and having rearwardly extending members 104 adapted to engage the upper extremity of the foremost newspaper and rearwardly extending members 106 adapted to engage the upper edges of the next adjacent rearwardly disposed newspaper. Upon operation of the machine, this bar is drawn downwardly as by means of slide rods 107 connected to the bar 103 and to the shelf 46 of the closure, so that upon downward rotation of the closure to open position, the bar 103 will be drawn downwardly against the upper edges of the newspapers stacked within the casing. Preferably, the members 104 are set somewhat below the members 106 so as to provide the urging of the foremost newspaper during its movement, whereas the function of the members 106 is to merely move against and slightly depress the adjacent rearwardly disposed newspapers.

Preferably, means is provided for limiting the opening movement of the closure and as here shown, this means is incorporated in the form of a bar 108 secured to the bottom wall 18 adjacent the hinged side thereof and extending upwardly and forwardly therefrom and provided with a hooked forward end 109 engageable in a slot 111 provided in the shelf of the closure member, the length of the slot being such that the hook 109 will engage a slot end upon movement of the closure to a fully opened position, as illustrated in Figure 6, and prevent further movement of the closure.

The operation of the device as described in the foregoing, may be briefly summarized as follows. The machine is loaded with newspapers by lifting the top cover 17 and inserting the newspapers with their folded edges downward onto the inclined bottom wall 37 and with the newspapers arranged vertically, so that the front page of the foremost newspaper will be pressed up against the front window 102. The top cover is then closed and locked by means of the key-lock 22 which releases the backing plate 92 for movement against the rear side of the newspapers. Upon insertion of a suitable coin, the coin mechanism 28 releases the operating part 34 for movement and the operator may then rotate the crank handle 76 to operate the machine. Initial rotation of the crank handle and attached shaft 43 causes an upward movement of the detent members 64 so as to space the front newspaper from the next rearwardly disposed paper and to securely hold the rearward papers against forward movement on the inclined shelf. Further movement of the crank is accompanied by a forward movement of the guard plate 47 which thereby releases the front newspaper for movement into the discharge opening. During the course of this operation the bar structure 103 is drawn downwardly so as to assist the discharge of the front newspaper and to press the adjacent rearward newspapers down against the bottom, so that with the closure in open position, it will be impossible for the operator of the machine by the use of any tools or the like to lift any of the rearward newspapers up over the detent members 64. Upon return movement of the crank, the closure starts its return movement to closed position and the guard plate 47 returns to a position adjacent the forward edge 41 of the inclined bottom, so as to prevent the further discharge of any rearwardly disposed newspaper, and adjacent the end of the return movement of the crank the detent members 64 are withdrawn from the top surface of the plate, so as to permit the stack of newspapers to shift forward to position the foremost newspaper in the stack for delivery upon insertion of a second coin. Preferably, a suitable ratchet mechanism is embodied in the coin control structure so as to prevent a return movement of the operating mechanism towards an open position of the closure, once the operating mechanism has been started from an open position of the closure to a closed position thereof. The provision of such a ratchet mechanism is relatively common in the coin dispensing art and for this reason is not here detailed.

While the present dispensing machine has been particularly described in connection with the dispensing of newspapers, it will be understood that the machine may be used to dispense other articles such as magazines and the like, and where used herein, the term "newspaper" is to be understood as merely descriptive and not limiting in its application.

A modified form of the invention has been illustrated in Figure 9, wherein a curved plate 112 extending substantially completely across the machine and the front edge 41' of the bottom plate 37' is substituted for the detent members 64 of the first embodiment and which is adapted to be swung from a position (shown in full lines in Figure 9) below the plate 37' to a raised position (shown in dotted lines) upon opening of the door, so as to effectively engage between the foremost newspaper and the next rearward newspaper to prevent the latter from shifting forward into the discharge opening upon delivery of the front newspaper. The plate 112 as here shown is pivotally supported by means of arms 113 at its opposite ends which may be pivotally secured to the end walls of the casing at the under side of the plate 37', so that upon

rocking of the plate and arms, the plate will swing forwardly and upwardly around the plate edge 41'. Actuation of the plate 112 in synchronism with the closure 42' is here effected by means of a pair of links 114 mounted adjacent the opposite ends of the closure shelf 46' and secured to the operating shaft 43', and secured at their outer ends to the arms 113 by means of a pin 116 carried by each of the arms and engaged in a guide slot 117 formed in each of the links 114. The balance of the operating mechanism is preferably the same as that described in connection with the first embodiment and is therefore not detailed.

I claim:

1. A newspaper vending machine comprising, a casing adapted for receipt of a plurality of newspapers in folded form each positioned in a substantially vertical plane with the folded edge thereof downward and with the several newspapers positioned in side-by-side relation from adjacent the rear wall to adjacent the front wall of the casing, a bottom wall for said casing supporting said newspapers and inclined downwardly towards said front wall to cause the newspapers to gravitate towards said front wall, said front wall being formed with a delivery opening adjacent said bottom wall, the forward edge of said bottom wall being spaced from said front wall to pass a newspaper therebetween into said delivery opening, means mounted adjacent the forward edge of said bottom wall and normally retaining the newspapers thereon and being movable forwardly thereof to pass a newspaper to said delivery opening, a manual operating mechanism connected to said means for moving the same to and away from the forward edge of said bottom wall, means connected to and operated by said mechanism for engaging the newspaper adjacent to the front newspaper for holding the former against movement to the delivery opening upon movement of said first means, and means for adjusting the amount of movement of said first means for regulating the size of the space at the forward edge of said bottom wall for passing a newspaper.

2. A newspaper vending machine comprising, a casing adapted for receipt of a plurality of newspapers in folded form each positioned in a substantially vertical plane with the folded edge thereof downward and with the several newspapers positioned in side-by-side relation from adjacent the rear wall to adjacent the front wall of the casing, a bottom wall for said casing supporting said newspapers and inclined downwardly towards said front wall to cause the newspapers to gravitate towards said front wall, said front wall being formed with a delivery opening adjacent said bottom wall, the forward edge of said bottom wall being spaced from said front wall to pass a newspaper therebetween into said delivery opening, a plate mounted across said casing adjacent the forward edge of said bottom wall for normally retaining the newspapers on said bottom wall and movable forwardly thereof to pass a newspaper between the forward edge of said bottom wall and said plate, manual operating means for so moving said plate, and a plurality of detent members connected to said last named means and movable thereby through said bottom wall to engage between the foremost newspaper and the next rearwardly adjacent newspaper to hold the latter against forward movement into said delivery opening.

3. A newspaper vending machine comprising, a casing adapted for receipt of a plurality of newspapers in folded form each positioned in a substantially vertical plane with the folded edge thereof downward and with the several newspapers positioned in side-by-side relation from adjacent the rear wall to adjacent the front wall of the casing, a bottom wall for said casing supporting said newspapers and inclined downwardly towards said front wall to cause the newspapers to gravitate towards said front wall, said front wall being formed with a delivery opening adjacent said bottom wall, the forward edge of said bottom wall being spaced from said front wall to pass a newspaper therebetween into said delivery opening, a plate mounted across said casing adjacent the forward edge of said bottom wall for normally retaining the newspapers on said bottom wall and movable forwardly thereof to pass a newspaper between the forward edge of said bottom wall and said plate, manual operating means for so moving said plate, a plurality of detent members connected to said last named means and movable thereby through said bottom wall to engage between the foremost newspaper and the next rearwardly adjacent newspaper to hold the latter against forward movement into said delivery opening, and means for adjusting the amount of movement of said plate to regulate the size of the space at the forward edge of said bottom wall for passing a newspaper.

4. A newspaper vending machine comprising, a casing adapted for receipt of a plurality of newspapers in folded form each positioned in a substantially vertical plane with the folded edge thereof downward and with the several newspapers positioned in side-by-side relation from adjacent the rear wall to adjacent the front wall of the casing, a bottom wall for said casing supporting said newspapers and inclined downwardly towards said front wall to cause the newspapers to gravitate towards said front wall, said front wall being formed with a delivery opening adjacent said bottom wall, the forward edge of said bottom wall being spaced from said front wall to pass a newspaper therebetween into said delivery opening, a plate mounted across said casing adjacent the forward edge of said bottom wall and movable forwardly thereof to pass a newspaper between the forward edge of said bottom wall and said plate, manual operating means for so moving said plate, and a plurality of detent members connected to said last named means and movable thereby through said bottom wall to engage between the foremost newspaper and the next rearwardly adjacent newspaper to hold the latter against forward movement into said delivery opening, said manual operating means being constructed to cause the aforesaid movement of said detent members in advance of the movement of said plate and the movement of said means in one direction to deliver a newspaper and to return said plate to its initial position prior to the retraction of said detent members upon a return movement of said means.

5. A newspaper vending machine comprising, a casing formed with front and rear walls and a forwardly inclined bottom wall and adapted for receipt of a plurality of newspapers in folded form positioned in vertical relation in said casing in substantially parallel relation to said front and rear walls and with the folded edges thereof rested upon said bottom wall, said front wall being provided with an elongated horizontally arranged delivery opening adjacent to the forward edge of said bottom wall, the forward edge of said bot-

tom wall being spaced from said front wall to pass a newspaper therebetween to said delivery opening, a closure mounted in said opening and movable to open and close same, a member mounted adjacent the forward edge of said bottom wall and normally retaining the foremost newspaper on said bottom wall and being movable forwardly into spaced relation from said forward edge to pass a newspaper to said delivery opening, a plurality of detent members movable upwardly through said bottom wall to engage between the foremost newspaper and the next rearwardly disposed newspaper to retain the latter on said bottom wall during delivery of the foremost newspaper and being retractible to permit the forward movement of said newspapers, and manual operating means connected to said closure and said first member and said detent members and operable upon movement in one direction to open said closure and to move said first member forwardly and to raise said detent members and upon return movement to close said closure and retract said first member and said detent members.

6. A newspaper vending machine as characterized in claim 5 including a plurality of cams embodied in said manual operating means and operative to raise said detent members in advance of the movement of said plate in the movement of said means in said first mentioned direction and to return said first member to initial position prior to retraction of said detent members upon movement of said means in an opposite return direction.

7. A newspaper vending machine comprising, a casing formed with front and rear walls and a forwardly inclined bottom wall and adapted for receipt of a plurality of newspapers in folded form positioned in vertical relation in said casing in substantially parallel relation to said front and rear walls and with the folded edges thereof rested upon said bottom wall, said front wall being provided with an elongated horizontally arranged delivery opening adjacent to the forward edge of said bottom wall, the forward edge of said bottom wall being spaced from said front wall to pass a newspaper therebetween to said delivery opening, a closure mounted in said opening and movable to open and close same, a member mounted adjacent the forward edge of said bottom wall and normally retaining the foremost newspaper on said bottom wall and being movable forwardly into spaced relation from said forward edge to pass a newspaper to said delivery opening, a plurality of detent members movable upwardly through said bottom wall to engage between the foremost newspaper and the next rearwardly disposed newspaper to retain the latter on said bottom wall during delivery of the foremost newspaper and being retractible to permit the forward movement of said newspapers, a shaft mounted below said bottom wall and extending substantially horizontally across said casing between said end walls, manual means for rotating said shaft, means connecting said shaft to said closure for opening and closing the latter upon reverse movements of said shaft, a plurality of arms connected to said shaft, each of said detent members being formed with guide slots, pins on said arms engageable in said guide slots for raising and lowering said detent members upon reverse movements of said shaft, a second set of arms carried by said shaft, means connected to said member and provided with guide slots, pins carried by said second arms and engageable in said last named slots for movement of said member to and from said forward edge of said bottom wall upon reverse movements of said shaft, whereby upon movement of said operating means in one direction said closure will be opened and said detent members will be raised and said first member moved forward and upon a reverse return movement of said means said closure will be moved to closed position and said detent members retracted and said plate retracted to initial position.

8. A newspaper vending machine as characterized in claim 7 wherein said guide slots are provided with a cam form to provide a raising of said detent members in advance of the movement of said first member in the first named movement of said operating means and to return said first member to adjacent initial position prior to retraction of said detent members upon return movement of said means.

9. A newspaper vending machine comprising, a casing formed with front and rear walls and a forwardly inclined bottom wall and adapted for receipt of a plurality of newspapers in folded form positioned in vertical relation in said casing in substantially parallel relation to said front and rear walls and with the folded edges thereof rested upon said bottom wall, said front wall being provided with an elongated horizontally arranged delivery opening adjacent to the forward edge of said bottom wall, the forward edge of said bottom wall being spaced from said front wall to pass a newspaper therebetween to said delivery opening, a closure mounted in said opening and movable to open and close same, a member mounted adjacent the forward edge of said bottom wall and normally retaining the foremost newspaper on said bottom wall and being movable forwardly into spaced relation from said forward edge to pass a newspaper to said delivery opening, a plurality of detent members movable upwardly through said bottom wall to engage between the foremost newspaper and the next rearwardly disposed newspaper to retain the latter on said bottom wall during delivery of the foremost newspaper and being retractible to permit the forward movement of said newspapers, a shaft mounted below said bottom wall and extending substantially horizontally across said casing between said end walls, manual means for rotating said shaft, means connecting said shaft to said closure for opening and closing the latter upon reverse movements of said shaft, means connecting said shaft to said detent members for raising and lowering the same upon reverse movements of said shaft, and an adjustable leverage mechanism connecting said shaft to said first member for moving the same to and from the forward edge of said bottom wall upon reverse movements of said shaft, said last named mechanism being operative to adjust the amount of movement of said first named member.

10. A newspaper vending machine comprising, a casing formed with front and rear walls and a forwardly inclined bottom wall and adapted for receipt of a plurality of newspapers in folded form positioned in vertical relation in said casing in substantially parallel relation to said front and rear walls and with the folded edges thereof rested upon said bottom walls, said front wall being provided with an elongated horizontally arranged delivery opening adjacent to the forward edge of said bottom wall, the forward edge of said bottom wall being spaced from said front wall to pass a newspaper therebetween to said

delivery opening, a closure mounted in said opening and movable to open and close same, a member mounted adjacent the forward edge of said bottom wall and normally retaining the foremost newspaper on said bottom wall and being movable forwardly into spaced relation from said forward edge to pass a newspaper to said delivery opening, a plurality of detent members movable upwardly through said bottom wall to engage between the foremost newspaper and the next rearwardly disposed newspaper to retain the latter on said bottom wall during delivery of the foremost newspaper and being retractible to permit the forward movement of said newspapers, manual operating means connected to said closure and said first member and said detent members and operable upon movement in one direction to open said closure and to move said first member forwardly and to raise said detent members and upon return movement to close said closure and retract said first member and said detent members, and a rearwardly extending shelf mounted on said closure and adapted to receive the lower end of a newspaper to be dispensed and to guide said newspaper into and through said opening upon opening of said closure.

11. A newspaper vending machine comprising, a casing formed with front and rear walls and a forwardly inclined bottom wall and adapted for receipt of a plurality of newspapers in folded form positioned in vertical relation in said casing in substantially parallel relation to said front and rear walls and with the folded edges thereof rested upon said bottom wall, said front wall being provided with an elongated horizontally arranged delivery opening adjacent to the forward edge of said bottom wall, the forward edge of said bottom wall being spaced from said front wall to pass a newspaper therebetween to said delivery opening, a closure, mounted in said opening and movable to open and close same, a member mounted adjacent the forward edge of said bottom wall and normally retaining the foremost newspaper on said bottom wall and being movable forwardly into spaced relation from said forward edge to pass a newspaper to said delivery opening, a plurality of detent members movable upwardly through said bottom wall to engage between the foremost newspaper and the next rearwardly disposed newspaper to retain the latter on said bottom wall during delivery of the foremost newspaper and being retractible to permit the forward movement of said newspapers, manual operating means connected to said closure and said first member and said detent members and operable upon movement in one direction to open said closure and to move said first member forwardly and to raise said detent members and upon return movement to close said closure and retract said first member and said detent members, and a member movably supported in said casing adjacent the top thereof and connected to said manual operating means and movable downwardly by the latter during the first mentioned movement of said means to engage the upper edges of said foremost newspaper to urge the latter downwardly into said delivery opening, said last named member being adapted to be raised to initial position upon return movement of said manual operating means.

12. A newspaper vending machine as characterized in claim 11 wherein a rearwardly extending arm is carried with said last mentioned member and is operative upon its downward movement to engage the rearwardly disposed newspapers to urge the latter against said bottom plate behind said detent members.

13. A newspaper vending machine comprising, a casing adapted for receipt of a plurality of newspapers in folded form each positioned in a substantially vertical plane with the folded edge thereof downward and with the several newspapers positioned in side-by-side relation from adjacent the rear wall to adjacent the front wall of the casing, a bottom wall for said casing supporting said newspapers and inclined downwardly towards said front wall to cause the newspapers to gravitate towards said front wall, said front wall being formed with a delivery opening adjacent said bottom wall, the forward edge of said bottom wall being spaced from said front wall to pass a newspaper therebetween into said delivery opening, means mounted adjacent the forward edge of said bottom wall and normally retaining the newspapers thereon and being movable forwardly thereof to pass a newspaper to said delivery opening, a manual operating mechanism connected to said means for moving the same to and away from the forward edge of said bottom wall, an elongated plate convexo-concave in cross-section and pivotally mounted adjacent the forward edge of said bottom wall about an axis parallel to said edge and spaced therefrom by a distance approximately equal to the radius of curvature of said plate and positioned with the concave side thereof next to said edge for swinging of said plate from a position below said wall to a raised position above said wall adjacent the forward edge thereof to engage between the front newspaper and the next rearward newspaper to hold the latter against forward movement into the delivery opening, and means connecting said plate to said manual operating mechanism for raising and lowering said plate as aforesaid upon movement of said means away from and toward said forward edge.

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