

March 22, 1927.

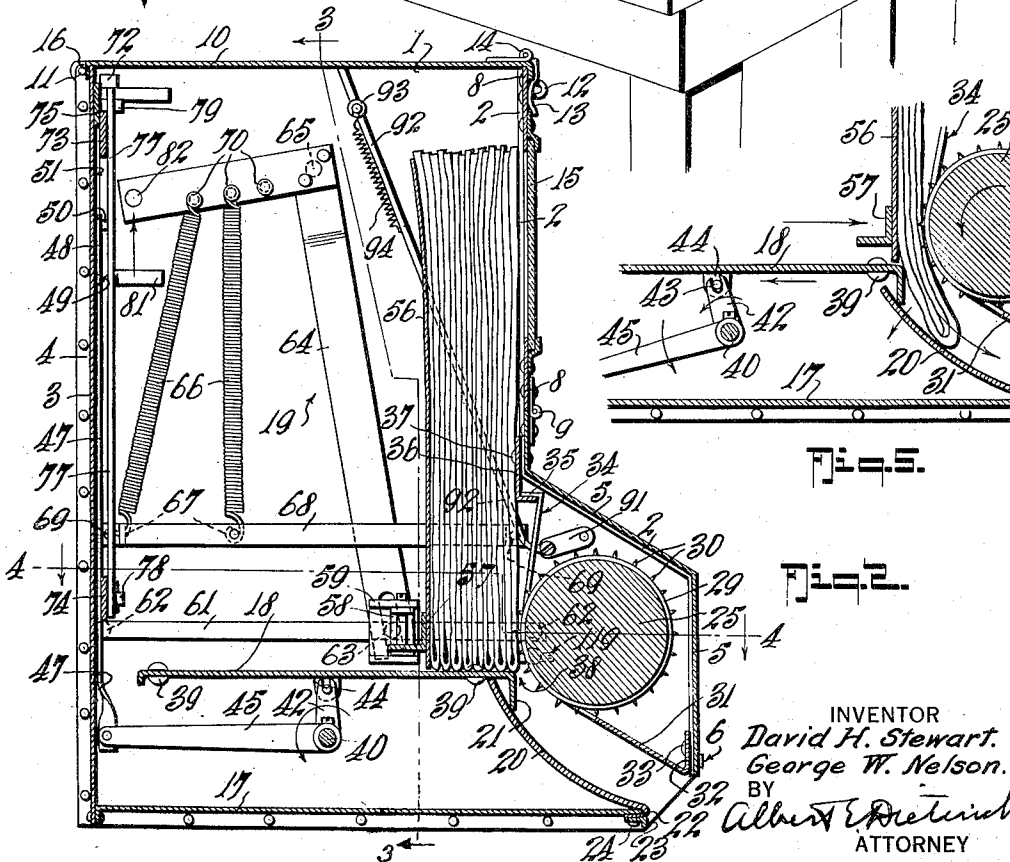
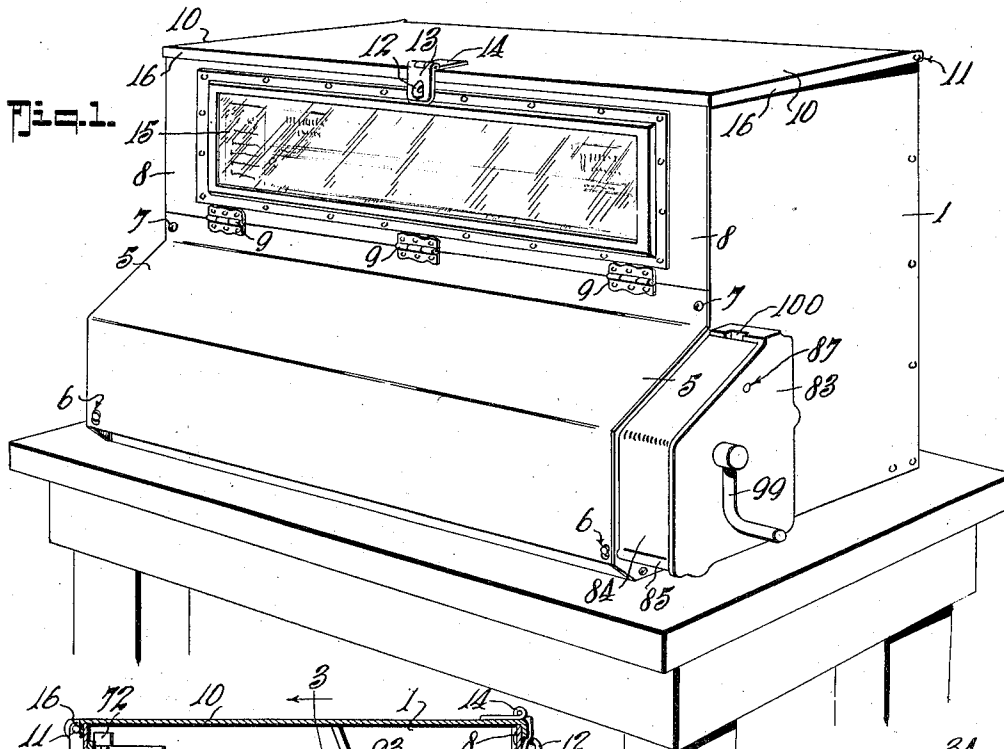
D. H. STEWART ET AL

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VENDING MACHINE

Filed Dec. 14, 1923

4 Sheets-Sheet 1



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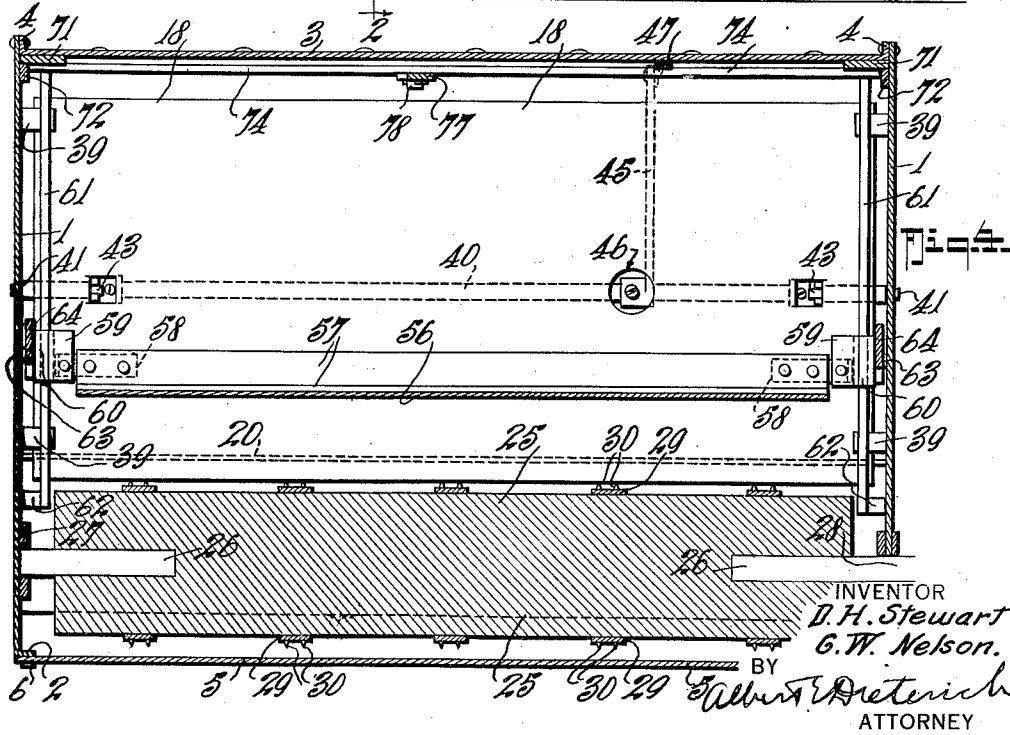
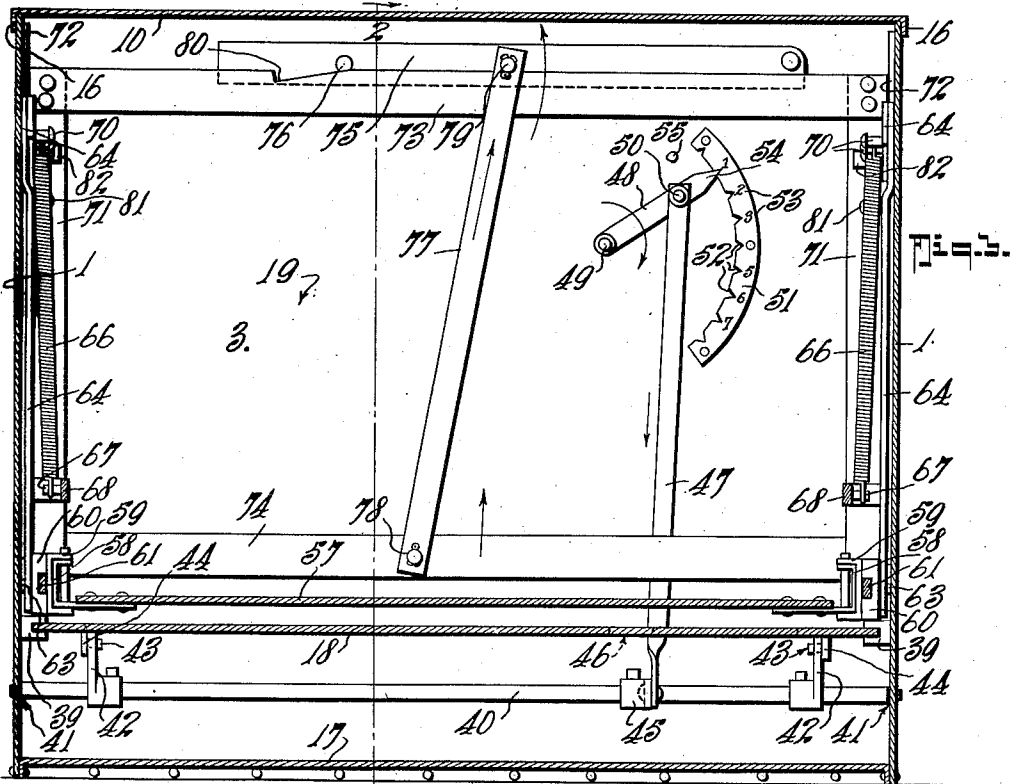
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4 Sheets-Sheet 2



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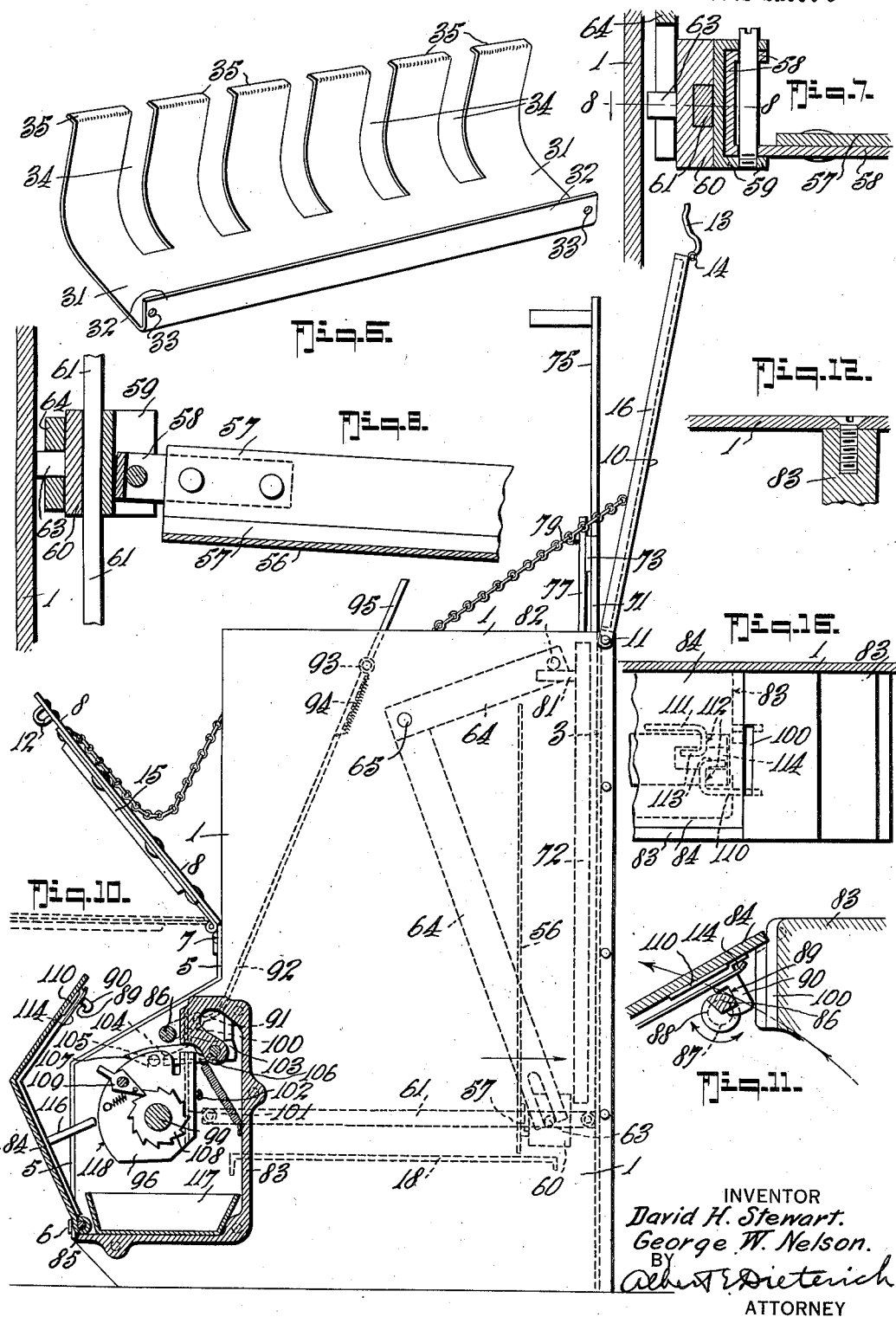
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VENDING MACHINE

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4 Sheets-Sheet 3



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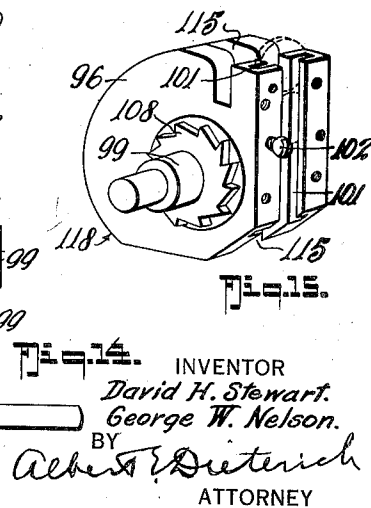
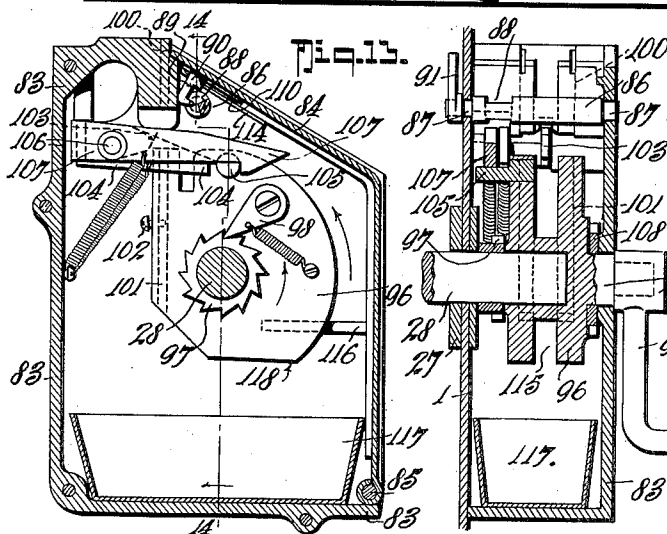
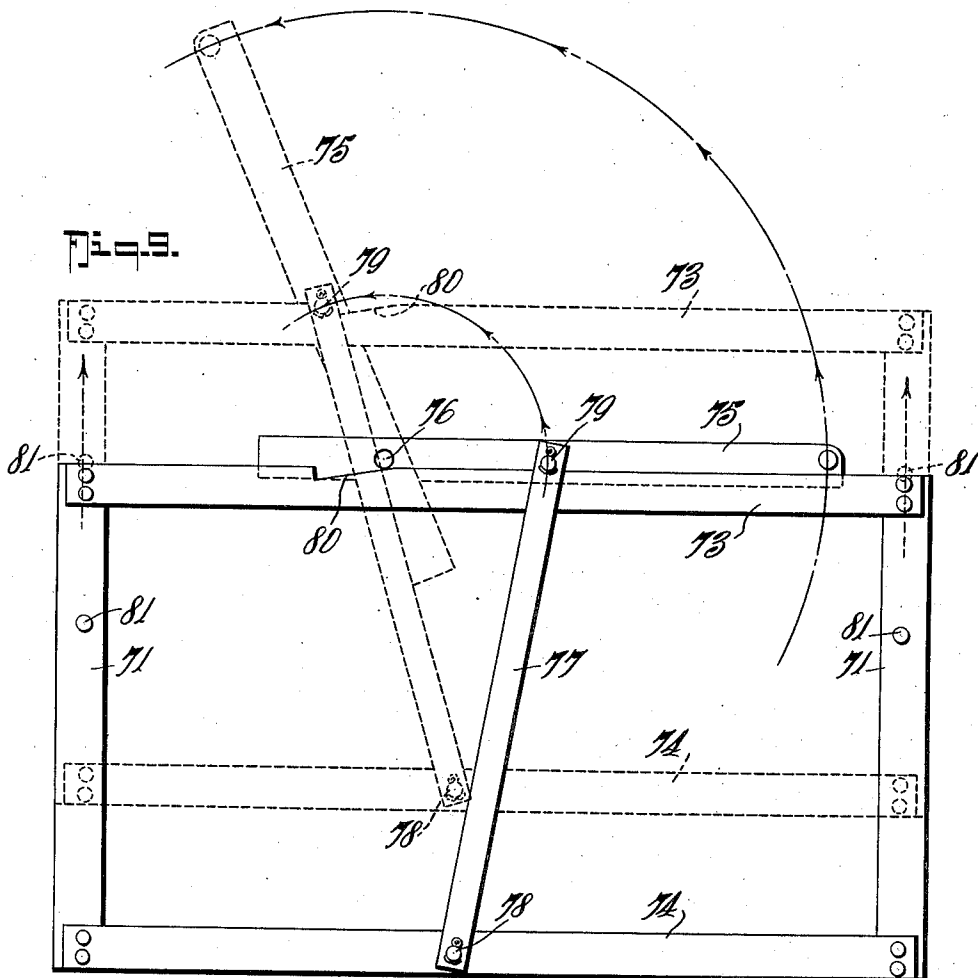
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VENDING MACHINE

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4 Sheets-Sheet 4



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UNITED STATES PATENT OFFICE.

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VENDING MACHINE.

Application filed December 14, 1923. Serial No. 680,697.

The invention generally relates to vending machines and more particularly to that class of such machines which are adapted to be placed upon street corners, in hotels, railway stations, or other public places for mechanically vending newspapers, magazines or other periodicals.

The invention has for its object to provide a machine of the class stated which is of simple and inexpensive construction and simple and positive in its function of vending the articles contained therein; and in which means is provided for compensating for variations in sizes of each particular issue of the articles to be vended, that perfectness of operation of the machine be assured under all conditions.

With the above and other objects in view, the invention further resides in those novel details of construction, combination and arrangement of parts, all of which will be first fully described, then be particularly pointed out in the appended claims, reference being had to the accompanying drawings, in which:

Figure 1 is a perspective view of the machine in use.

Figure 2 is a cross section thereof on the line 2—2 on Figure 3.

Figure 3 is a longitudinal section on the line 3—3 on Figure 2.

Figure 4 is a horizontal section on the line 4—4 on Figure 2.

Figure 5 is a detail cross section illustrating the manner in which the discharge throatway is adjusted.

Figure 6 is a perspective view of the roller guard and guide plate.

Figure 7 is a vertical section through one of the pivoted end guides for the presser follower devices.

Figure 8 is a horizontal section on the line 8—8 on Figure 7 and illustrates the manner in which the presser follower may adjust itself to the shape of the paper pack.

Figure 9 is a diagrammatic face view illustrating the movement of the toggles and frame for effecting the retracting of the presser follower from action.

Figure 10 is a vertical section taken through the coin control mechanism housing looking in the direction of the casing, the parts being shown in the "refill" position.

Figure 11 is a detail cross section illus-

trating the lock devices for the coin control housing door.

Figure 12 is a detail horizontal section illustrating the manner of securing the coin control housing to the machine casing.

Figure 13 is a vertical cross section taken through the coin control housing looking in the direction opposite that in Figure 10.

Figure 14 is a vertical section on the line 14—14 on Figure 13.

Figure 15 is a detail perspective view of the main casting of the coin control mechanism.

Figure 16 is a detail plan view illustrating the means for adjusting the coin slotway of the housing to receive certain coins only.

In the drawings, in which like numerals of reference indicate like parts in all of the figures, the casing of our improved newspaper vending machine is illustrated as comprising side plates 1, which are provided with front flanges 2, a rear wall 3 which includes side flanges 4 through the medium of which the said rear wall is secured in co-operative relation with the side walls 1, a front cover plate 5 which is removably secured adjacent the bottom of each front flange 2 through the medium of key slot and stud connections 6 and fixedly secured at a point intermediate the height of the said flanges 2, as at 7. A suitable door 8 is hinged to the front cover plate, as at 9, to adapt the same to be swung downwardly to facilitate the ready refilling of a newspaper pack into the machine in the manner later to be described.

A top cover 10 is also provided and is hingedly secured in cooperation with the casing, as at 11, to adapt the same to be swung upwardly with relation thereto, to also facilitate the ready refilling of the machine and adjustment of such mechanism thereof as may be necessary. A hasp is secured to the door 8 in position for co-operating with the lock plate 13, hinged at 14 to the top cover 10, in effecting the locking of the casing to its operative condition illustrated in Figures 1 and 2. The door 8 is also provided with a window 15 through which the "scare heads" of the newspapers being vended may be viewed, and the top cover 10 includes drop flanges 16 adapted to extend down over the side plates 1 and the door 8 for effectively shedding moisture

and rain and for aiding in holding the hinged door 8 to its closed position.

The casing of the vending machine is closed at its bottom, against dampness or interference with the mechanism, by a bottom cover plate 17 which has the drop flanges of its side and rear edges secured to the side walls 1 and the rear wall 3, as clearly illustrated in Figures 2 and 3 of the drawings.

Within the casing and elevated a suitable distance from the bottom thereof, as will be apparent from Figures 2 and 3 of the drawing, a pack receiving plate 18 is positioned for cooperating with the sides 1, the rear wall 3, a portion of the front wall 5, and the door 8 in providing a storage compartment 19 for the newspapers or other periodicals to be vended from the machine.

A curved guide plate 20 is also provided which has its free end projected up and under the drop flange 21 of the plate 18 for acting as a suitable guide trough for the newspaper being discharged from the machine and cooperative with that flange in a manner soon to be described. This guide plate includes a turned back flange 22 which is adapted to be fitted over the front edge of the bottom plate 17, as is clearly indicated in Figure 2 of the drawings, and to be clamped to the position there indicated by the flanged clamp plate 23 and through the medium of the clamp screws 24 which pass through the said plate 23, the flange 22, and into the front edge of the said bottom plate 17.

By reference to Figures 1 and 2, it will be apparent that each side plate 1 has a forward extension at the bottom portion thereof, and, together with the similarly shaped portions of the front wall 5 form a forward casing extension adapted to accommodate the feed roller 25 which forms the principal part of the newspaper delivery mechanism. This roller 25 may be a cylinder of wood, or any suitable material, and includes shaft portions 26 for forming trunnion bearings for the said cylinder in the bearings 27 secured upon each of the side walls 1, and one of these shaft portions 26 is preferably extended through its adjacent side wall 1, as at 28, for a purpose later to be described.

The feeding or delivery roller 25 has mounted thereupon, at suitable intervals, (see Figure 4) encircling bands 29 of rubber or other suitable material and which are studded with feeding brads or pins 30 adapted, when the roller 25 is rotated in a manner later to be described, to engage the adjacent newspaper and effect a discharging thereof from the machine in an effective manner but without damage thereto, as will later appear.

A roller guard plate 31 is provided and is formed to include a flange 32 adapted to be

secured to the bottom ends of the front flanges 2, as at 33, in such manner that said plate 31 will be in position for cooperating with the guide plate 20 in providing a suitable discharge throatway through which the newspaper being vended may freely pass, see Figure 2. The plate 31 also includes cut out portions 34 adapted to straddle each band 29 upon the roller 25 and the upper ends of each solid portion formed between the cut out portions 34 includes a rearwardly turned flange 35 adapted to engage and be supported by the forwardly projecting flange of the cross bar 36 secured at 37 to the front flanges 2 of the side walls 1.

By reference to Figure 2, it will be observed that the relative positioning of the roller 25 and the newspaper pack receiving plate 18 are such that they cooperate in providing a discharge throatway 38 therebetween, and the plate 18 is slidably mounted in the opposite corner slide guides 39 in a manner whereby the throatway 38 may be increased or diminished in width to adapt the machine to perfectness of operation in cooperation with the varied thicknesses of respective issues of the newspaper or other periodical that the machine is designed to vend.

A rock shaft 40 is provided and has suitable trunnion bearing at its ends, as at 41, in the side walls 1 and cranks 42 are secured to rock with this shaft through the medium of the set screws clearly illustrated in Figures 2 and 3 of the drawings, and these cranks extend upwardly and are pin and fork connected as at 43 with dependent lugs 44 stamped and turned down from the plate 18 so that when the said shaft 40 is rocked the plate 18 will be moved forwardly or rearwardly in its guides 39 for effecting a decreasing or increasing of the width of the discharge throatway 38.

Another crank 45 is secured upon the rock shaft 40 through the medium of the set screw shown, and this latter crank extends rearwardly of that shaft. The plate 18 is provided with a hole 46 through which and through the apertures left by the stamping and turning down of the lugs 44 the set screws which screw the cranks 42 and 45 upon the shaft 40 may be tightened when necessary for ensuring perfect functioning of the parts or for adjusting the crank positions should it be necessary.

For rocking the shaft 40 to effect the regulation of the throatway 38 in simple and effective manner, the crank 45, hereinbefore referred to, is extended rearwardly to a point adjacent the rear wall 3 where it is pivotally connected with a link arm 47 which extends upwardly for cooperation with an operating lever 48, pivoted at 49 upon the rear wall 3 and to which the said

link 47 is pivotally connected, the connection being such as will provide a convenient knob 50 which may be grasped by the operator in effecting adjustment of the devices.

5 An arc plate 51 is secured to the rear wall 3, the arc of the plate being concentric with the pivot 49 and which plate is provided with indicating and holding notches 52 and suitable indicating marking 53 adapted to
10 indicate the width of the discharge throatway 38. The operating lever 48 includes an indicating finger portion 54 which is adapted to project into the respective ones of the notches 52 for indicating the width of the
15 throatway 38 and for holding the said lever to its particular adjustment, it being understood, of course, that the lever 48 is sufficiently flexible to permit a flexing of the indicating portion 54 forwardly out of the
20 respective notch 52 so that it may be moved to any notch for cooperating therewith, as hereinbefore described. A stop lug 55 is provided and serves to prevent such movement of the lever 48 as would effect a choking of the discharge throatway 38, (see Figures 2 and 3).

In the machine provision is made for holding the pack of newspapers, or other periodicals to be vended, in a vertical position with
30 their folded edges resting upon the receiving plate 18, as indicated in Figure 2 of the drawings, and by experiment it has been found that in order to provide for perfectness of operation in vending the papers positively and individually it is necessary to
35 continuously press the pack of papers forwardly against the delivery roller 25 and to exert that continuous pressure at a point adjacent the bottom ends of the papers and directly toward the axis of said roller. It
40 has also been found by experiment that a pack of newspapers will be much thicker at one end than at the other, due to the folds of the paper, which difference of thickness
45 will greatly vary in accordance with the size of each particular issue, the most appreciable variation being, of course, that variation between a daily issue and the Sunday issue, it being understood that in our improved
50 vending machine provision has been made for compensating for all such variations in a manner for ensuring perfect operation of the machine under all such conditions.

To this end a presser follower plate 56 is provided which extends from a point approximating the plane of the plate 18 to approximately the top of the pack of papers and this plate is preferably very flexible for
55 permitting a degree of freedom adjacent the top of the paper pack so that while effectively holding the pack erect, as indicated in Figure 2, the greatest force of the following action will be exerted at a point adjacent the
60 bottom of the pack so as to be directly against the delivery roller 25.

The plate 56 is secured to the upright portion of a cross angle bar 57, which said angle bar terminates short of the walls 1 and to each end of which is secured, with the
70 base thereof positioned vertically, an L-shaped member 58, each of which is adapted to fit within a U-shaped member 59 secured to a guide block 60 slidably mounted upon
75 guide rails 61 secured at 62 to the side walls 1. The members 58 and 59 are pivotally joined with each other through the medium of a vertically positioned pivot pin in a manner whereby the presser follower 56—57
80 is slidably mounted upon the guides 61 and in a manner for providing for a compensation for the variations of thicknesses throughout the length of the paper pack (see Figures 2, 7 and 8).

Each block 60 is pin and fork connected as at 63 with the long arm of a bell crank lever
85 64 pivoted at 65 to each side wall 1, and springs 66, secured at 67 to the paper pack guard rails 68, which are in turn secured at 69 to each side wall 1, and to desired ones of the studs 70 provided on the short arm of
90 the bell crank lever 64, provide for normally forcing the said presser follower against the pack for applying continuous following and pressing action thereupon.

While the machine is filled with a paper
95 pack and until the last newspaper has been exhausted therefrom, the presser follower 56—57 is continuously forced against said pack and when the pack has been exhausted the said presser follower must be forced
100 back, against the action of the spring 66, to a position for permitting a convenient refilling of the compartment 19 with a new paper pack. For this purpose I have provided a mechanism whereby the operator
105 may so remove the presser follower from the pressing condition in an effective and simple manner and whereby the parts will be locked to such position so that he will in no wise be hindered in the refilling action.
110

For this purpose, we provide a moving frame composed of side bars 71 adapted to be guided by the guide bars 72 secured to the side wall plates 1, a top cross bar 73 and a bottom cross bar 74 each secured to
115 the side bars 71 to form said frame. A moving lever 75 is also provided and is pivoted as at 76 to the rear wall 3, and a link 77 is pivoted at 78 to the bottom cross bar 74 and at 79 to the said lever 75. The lever
120 75 is also provided with a handle at the end farthest from the pivot 76 and the top cross bar 73 is provided with a notched portion 80 and, by reference to Figure 3 and to Figures 9 and 10 it will readily be
125 observed that when the said lever is moved upward on its pivot, as indicated by the arrow on Figure 9, a lifting of the frame through the medium of the link 77 will be effected, and when the lever has been
130

moved over to its limit the pivot pin 79 will engage with the notch 80 of the cross bar 73 in effecting a stop and a locking of the frame to its adjusted position, (see Figure 9). The side bars 71 are each provided with a forwardly projecting stud 81, each of which projects into the path of a laterally projecting stud 82 secured adjacent the end of the short arm of each bell crank lever 64 so that when the frame is moved upwardly, as indicated in Figure 10, the studs 81 will engage the studs 82 and effect a rocking of the levers 64 to withdraw the presser follower 56—57 from its operative position, a locking of the parts to the retracted position being effected as before described.

By reference to Figure 2 of the drawing, it will be observed that the ends of the guide rails 61 which are secured to the side walls 1 adjacent the rear wall 3, form a stop for the frame and prevent downward movement thereof beyond the point indicated in Figure 2 by reason of the engagement therewith of the cross bar 74 of said frame.

By reference to Figure 5 it will be observed that the guide plate 20 so cooperates with the drop flange of the paper pack receiving plate 18 that when the said plate is adjusted, as illustrated in that figure, the said guide plate 20 will be moved backward and downward by that drop flange in a manner whereby it will remain in engagement therewith and in position for still serving its function in guiding the paper being vended out of the machine, thus making it possible to adjust the throatway 38 without in any manner effecting the cooperation of that throatway with the guide plates 40 which guide the vended article out of the machine.

While it will be possible to operate the machine by merely providing a crank for cooperating with the extended end 28 of the shaft portion 26 so that the newspapers might be discharged from the machine by a mere rotation of such crank, as might be desirable in fashionable hotels or other public places where literature might be distributed gratis, it is, of course, preferable that operation of the delivery roller 25 be effected through a coin control mechanism so that each paper would be vended only after the insertion into the machine of coins equaling the value of the said paper.

We have included in our invention the provision of a suitable casing adapted to receive any suitable type of coin controlled mechanism and we have so constructed this casing and provided the same with a hinged door, through which access may be had to the coin controlled mechanism, whereby the said casing cooperates with the main casing of the machine in a manner for effecting a positive and automatic locking of the said

casing against outside interference when the said main casing is locked, the construction and arrangement of the parts being such that when the main casing is rendered in condition for refilling the same, the coin control casing is automatically unlocked so that the coins which have been deposited thereinto may be removed and the mechanism adjusted as may be desired.

Therefore, as a part of our invention, we provide the supplemental or coin control casing 83, which includes a cover door 84 which is hinged at 85 to the said casing. For providing for the automatic locking and unlocking of this casing in cooperation with the main casing, as above described, we provide a lock shaft 86, which is positioned within the casing and provided at its end with trunnion bearings 87 in the side wall of the said casing and in the adjacent side wall 1 of the main casing. The lock shaft 86 is cut out as at 88 to provide a locking portion adapted to cooperate with the lock-notch 89 formed in the locking lug 90 secured upon the door 84, see Figures 11, 13 and 14.

That trunnion end of the lock shaft 86 which passes through the side wall 1 of the main casing is slightly extended and has secured thereupon a crank arm 91 to which is pivoted the lock operating rod 92, which is guided at 93, at a point upon and adjacent the top of the side wall of the main casing, and is spring connected as at 94 so that the rod 92 has a tendency to position itself, as is illustrated in Figure 10 of the drawing, or in position for unlocking the supplemental casing door 84, as is there indicated. When, however, the hinged cover 10 of the main casing is swung down and locked to the position illustrated in Figures 1 and 2 of the drawings, the said cover 10 will engage the projected end 95 of the rod 92 and force the same downwardly against the tension of the spring 94 and in a manner for effecting a rocking of the lock shaft 86, through the lever arm 91 and to the position illustrated in Figure 11, in which the locked position of the supplemental casing door 84 is clearly illustrated.

In the drawings, we have disclosed a type of coin controlled mechanism which is adaptable to use in connection with our improved newspaper vending machine, but we desire it understood that the said mechanism, per se, forms no part of our present invention.

The projected end 28 of the particular shaft portion 26 of the delivery roller 25 projects into the casing 83 and into the hub portion of the main casing 96 of the coin mechanism, which is loosely and rotatably mounted thereupon. This projected end 28 has mounted thereupon to turn therewith a ratchet 97 which is adapted to be engaged

by the spring held dog 98 pivoted upon the casing 96 and cooperating with the said ratchet and in such a manner as to cause rotation of the shaft portion 26 and delivery roller 25 in a direction for effecting a discharge of a newspaper, or other article to be vended, when the said casting 96 is permitted to be rotated in a manner soon to be described. The coin control casting 96 also includes a shaft portion 99 which projects through and out of the casing 83 to be engaged by the hand of the operator.

The casing 83 is provided with a vertically disposed coin slotway 100 which is normally in alignment with a similar slotway 101 provided with a plurality of screw taps, see Figure 15, for accommodating a screw 102 adapted to stop the coins deposited into the slot 101 through the slotway 100 to prevent them falling entirely through the said slotway 101.

In this type of coin control mechanism, provision is made for adjusting the mechanism for being controlled by varied coin values, according to the value of the paper being vended, the idea being that the screw 102 provides a stop for the coins so that the single coin deposited into the slotway 101, or the plurality of coins, will be so held within that slotway as to project thereabove, as is illustrated in Figure 15, in which two coins are shown as held within the said slotway.

It should be understood that the casting 96 is held against rotation in the direction of the arrow on Figure 13 in the manner soon to be described, it being possible to so rotate this casting only after the insertion of the proper amount of coins into the position illustrated in Figure 15. For providing for this lock position of the said casting 96 and for the release thereof from such locked position by coin engagement, we provide a release dog 103, which is formed as an integral part of the lock dog 104, which lies normally within the path of rotation of the laterally projecting lug 105 of the casting 96 to prevent rotation thereof in the direction of the arrow on Figure 13. The member 103—104 is pivoted upon a stud shaft 106 supported by the casing 83 upon which is also pivoted a lock dog 107 which serves to prevent rotation of the casting 96 in a direction opposite to that indicated by the arrow on Figure 13. Both of the members 103—104 and 107 are spring-held and lug stopped to the normal positions illustrated in Figure 13 and in the manner there illustrated so that the casting 96 is normally held against rotation in either direction, thus making it impossible to turn the crank 99 to effect a discharge of the foremost newspaper in the newspaper pack contained within the main casing.

A ratchet 108 is secured upon the crank

shaft portion 99 of the casting 96 and a spring-held dog 109 is pivoted to the wall of the casing 83 to engage the said ratchet and prevent rotation of the casting 96 in any direction than that indicated by the arrow on Figure 13, at such times as the lock dog 104 and lug 106 are out of cooperative relation. By reference to Figures 13, 14 and 15, it will be observed that when the proper coins have been inserted through the coin slotway 100 into the slotway 101, as indicated in such Figure 15, that the operator may grasp the operating crank 99 and when movement is imparted to the casting 96 in the direction of the arrow indicated on Figure 13, the upwardly projecting portion of the uppermost coin will engage the release dog 103 and effect a rocking upward of the lock dog 104 out of the path of rotation of the lug 105, thus permitting full rotation of the casting 96 and permitting a complete rotation of the delivery roller 25 by effecting a discharge of the uppermost newspaper in the manner indicated in Figure 5. The ratchet and pawl connection 108—109 functions to prevent backward rotation of the casting 96 by the operator, such as would leave the machine out of the normal position illustrated in Figure 13, and makes it necessary for him to continue the forward rotation of the casting until the parts are reset to the said normal position.

It will be observed from Figures 10, 13 and 16 that the door 84 of the supplemental casing 83 is provided with a strengthening bar substantially conforming to the shape thereof and positioned centrally thereof and at the end of this strengthening bar nearest adjacent the coin slotway 100 of the casing 83, coin slotway restricting latches 110 and 111 are pivoted thereto, as at 112. The strengthening bar is suitably cut out to provide for the movement of the heel portions 113 formed on each of these latches and which said heel portions are adapted to be engaged by the spring 114 which serves to hold them to either their extended position or retracted position, the retracted position of both thereof being illustrated in Figures 10 and 11 of the drawings, and the extended position of one and the retracted position of the other being illustrated in the said Figure 16. The latches 110 and 111 serve to retract the coin passageway 100 of the casing 83 whenever that is desired, as for example, when the machine is set for the insertion of one, two or three pennies, at which time the said slotway may be restricted in the manner illustrated in Figure 16, it being understood that should it be desired to restrict the said slotway for the insertion of dimes only, both latches 110—111 would be adjusted to the position in which the latch 110 is illustrated in that figure.

The casting 96 is formed to provide a cen-

trally disposed grooveway 115, into which the finger 116, secured to the door 84, projects when the parts are positioned as illustrated in Figure 13, in a manner whereby the said finger will strip the coin slotway 101 of any coins which might have a tendency to stick within that slotway for any reason, and to cause them to fall into the collecting tray 117.

It will also be observed that the casting 96 is so formed that the balance of weight thereof is positioned at the side of the shaft extension 28 opposite the position of the slotway 101, so as to provide a sort of counterweight action at the point indicated at 118 to normally hold the said casting to the position indicated in Figure 13 of the drawings, that is,—with the lug 105 in engagement with the lock dog 107 and with the slotways 100—101 in perfect register one with the other.

We desire it to be understood that none of the mechanism herein described, which is actually a part of the coin control mechanism, forms of itself a part of our present invention.

By preventing a forcing of the presser follower 56—57 into actual engagement with the delivery roller 25, through the action of the bell crank levers 64 and springs 66, we provide adjustable stops 119, one deposited upon each side wall 1 in position for having the adjustable screw thereof engage the slide block 60 for the purpose mentioned.

It should be understood that after the coins control mechanism has been coin released it is possible for the operator to rotate the same through a complete rotation before the parts reset themselves to the position indicated in Figure 13, during which time the delivery roller 25 will, of course, be rotated through a complete rotation also. Thus the outermost newspaper, or other article being vended, will be discharged from the machine the distance dependent upon the contacting surface of the roller 25 and unless the roller is made of a very great diameter the newspaper will only be partially discharged from the machine or a distance through the outlet of the machine sufficient to permit the purchaser thereof to grasp the same and withdraw it from the machine the remainder of the way by hand, the ratchet connections 97—98 permitting such free rotation of the roller as is necessary.

It will be observed from Figure 10 that when the casing cover 10 is thrown up to the open position there shown the front door 8 may be readily lowered to the horizontal position illustrated in dotted lines on that figure, thus opening more than half of the front of the main casing, making it possible for the person refilling the machine with a paper pack to jog the pack up and down upon

this horizontally disposed door to bring all of the bottom edges thereof to the same plane and, the front part of the casing being open it is very easy to insert the pack into position upon the receiving plate 18. It will be readily observed that by reason of this construction perfect operation of the machine is facilitated and all danger of improper discharge of the papers or clogging of the machine by reason of some of the papers of the pack being crowded up above the plane at which they rest upon the plate 18 is avoided, and also making it more possible to insert the pack into the casing with all of the bottom edges on the same plane than would be possible by inserting the pack by a downward motion through a door opening only through the top of the casing.

From the foregoing description, taken in connection with the accompanying drawings, it is thought the complete construction, operation and advantages of our invention will be readily understood by those skilled in the art.

What we claim is:

1. In a vending machine of the character described, a delivery mechanism arranged to grip the outermost one of a pack of papers at the lower end thereof, a presser follower comprising a rigid lower portion that exerts pressure against the paper pack in line with the delivery mechanism and a flexible upper portion that yieldingly sustains the upper portion of the paper pack in a vertical position, guideways at the sides of the machine, guides slidable along said guideways, and yieldable means connecting said guides with said rigid portion of the follower whereby said follower may assume various positions in a plane normal to the pack to adapt itself to varying side-edge thicknesses of the pack and means exerting independent yielding pressures on said guides in the direction of said delivery mechanism.

2. In a vending machine of the character described, in combination with a delivery mechanism arranged to grip the outermost one of a pack of papers at the lower end thereof; of a presser follower comprising a lower portion adapted to exert pressure against the paper pack toward the said delivery mechanism, and a flexible upper portion adapted to yieldably engage the paper pack to hold it erect, guides for guiding the movement of said follower, means for mounting said follower in cooperation with said guides for permitting movement thereof in angular relation with said delivery mechanism, bell crank levers for forcing the said presser follower toward the paper pack and for retracting said presser follower to permit refilling of the machine with a paper pack, springs for acting upon said levers for forcing the said follower toward the paper pack, and a frame adapted to be hand

moved to act upon said levers to effect a retracting of said presser follower to permit a refilling of the machine with a new paper pack.

3. In a vending machine of the character described, in combination with a delivery mechanism arranged to grip the outermost one of a pack of papers at the lower end thereof; of a presser follower comprising a lower portion adapted to exert pressure against the paper pack toward the said delivery mechanism, a flexible upper portion adapted to yieldably engage the paper pack to hold it erect, guides for guiding the movement of said follower, means for mounting said follower in cooperation with said guides for permitting movement thereof in angular relation with said delivery mechanism, bell crank levers for forcing the said presser follower toward the paper pack and for retracting said presser follower to permit refilling of the machine with a paper pack, springs for acting upon said levers for forcing the said follower toward the paper pack, a frame adapted to act upon said levers to effect a retracting of said presser follower to permit a refilling of the machine with a new paper pack, and a toggle lever and link connection adapted to be hand operated for moving said frame and for locking the same to the position effecting full retraction of said presser follower.

4. In a vending machine of the character described, in combination with a delivery mechanism arranged to grip the outermost one of a pack of papers at the lower end thereof; of a presser follower comprising a lower portion adapted to exert pressure against the paper pack toward the said delivery mechanism, and a flexible upper portion adapted to yieldably engage the paper pack to hold it erect, guide blocks connected with said presser follower by a vertical axis pivot, guide rails for guiding said blocks, and means for engaging said blocks for effecting a continuous forcing of the presser follower toward the paper pack when the machine is in operation and for retracting said presser follower to permit refilling of the machine with a paper pack.

5. In a vending machine of the character described, in combination with a delivery mechanism arranged to grip the outermost one of a pack of papers at the lower end thereof; of a presser follower comprising a lower portion adapted to exert pressure against the paper pack toward the said delivery mechanism, a flexible upper portion adapted to yieldably engage the paper pack to hold it erect, guide blocks connected with said presser follower by a vertical axis pivot, guide rails for guiding said blocks, bell crank levers for engaging said blocks for forcing said presser follower toward said paper pack and for retracting said presser

follower to permit refilling of the machine with a paper pack, springs for acting upon said levers for effecting the forcing function thereof, a frame adapted to act upon said levers for effecting the retracting function thereof, and toggle lever and link connections for moving said frame and for locking the same to the position effecting full retraction of said presser follower.

6. In a vending machine of the character described, in combination with a delivery mechanism arranged to grip the outermost one of a pack of papers at the lower end thereof; of a presser follower comprising a lower portion adapted to exert pressure against the paper pack toward the said delivery mechanism, a flexible upper portion adapted to yieldably engage the paper pack to hold it erect, guide blocks connected with said presser follower by a vertical axis pivot, guide rails for guiding said blocks, bell crank levers for engaging said blocks for forcing said presser follower toward said paper pack and for retracting said presser follower to permit refilling of the machine with a paper pack, springs for acting upon said levers for effecting the forcing function thereof, a frame adapted to act upon said levers for effecting the retracting function thereof, toggle lever and link connections for moving said frame and for locking the same to the position effecting full retraction of said presser follower, and adjustable stops for limiting movement of said presser follower to a point just short of engagement with said delivery mechanism.

7. In a vending machine of the character described, a delivery mechanism arranged to grip the outermost one of a pack of papers at the lower end thereof, a presser follower comprising a rigid lower portion that exerts pressure against the paper pack in line with the delivery mechanism and a flexible upper portion that yieldingly sustains the upper portion of the paper pack in a vertical position, guideways at the sides of the machine, guides slidable along said guideways, yieldable means connecting said guides with said rigid portion of the follower whereby said follower may assume various positions in a plane normal to the pack to adapt itself to varying side-edge thicknesses of the pack, means exerting independent yielding pressures on said guides in the direction of said delivery mechanism, and a single means adapted to be brought into connection with all of said pressure exerting means to withdraw the same and withdraw the follower from a position adjacent the delivery mechanism.

8. In a vending machine of the character described wherein is provided a delivery mechanism and a pack receiving plate movable toward and from the delivery mechanism to vary the width of the discharge

throatway therebetween; guides for said plate, a rock shaft, levers on said rock shaft connected with said plate for moving the same in its plane, said rock shaft being located below the plate, an operating lever on said rock shaft extending toward the back of the machine, a pointer pivoted on the back of the machine, a link connecting said pointer with said operating lever, and a notched arc plate adapted to receive the pointer and hold it in its adjusted position, said arc plate having indicating marks associated with said notches to indicate the amount of delivery opening of the machine.

9. A machine of the class described, comprising a casing for providing a paper pack receiving compartment, a delivery mechanism within said casing, a plate for receiving the pack of newspapers to be vended and adapted to cooperate with said delivery mechanism to provide a discharge throatway therebetween, crank and lever devices for moving said plate to vary the dimensions of said discharge throatway, a presser follower for forcing the paper pack toward the delivery mechanism, slides for guiding movement of said presser follower, and means for pivotally mounting said presser follower in cooperation with said slides for permitting angular movement thereof with relation to the delivery mechanism.

10. A machine of the class described comprising a casing for providing a paper pack receiving compartment, a delivery mechanism within said casing, a plate for receiving the pack of newspapers to be vended and adapted to cooperate with said delivery mechanism to provide a discharge throatway therebetween, crank and lever devices for moving said plate to vary the dimensions of said discharge throatway, a presser follower for forcing the paper pack toward the delivery mechanism, slides for guiding movement of said presser follower, means for pivotally mounting said presser follower in cooperation with said slides for permitting angular movement thereof with relation to the delivery mechanism, bell crank lever and spring devices for continuously forcing the said presser follower toward the delivery mechanism, toggle lever and frame devices for retracting the presser follower and for locking the same to its retracted position.

11. A machine of the class described comprising a casing for providing a paper pack receiving compartment, a delivery mechanism within said casing, a plate for receiving the pack of newspapers to be vended and adapted to cooperate with said delivery mechanism to provide a discharge throatway therebetween, crank and lever devices for moving said plate to vary the dimensions of said discharge throatway, a presser follower for forcing the paper pack toward the delivery mechanism, slides for guiding

movement of said presser follower, means for pivotally mounting said presser follower in cooperation with said slides for permitting angular movement thereof with relation to the delivery mechanism, bell crank levers and spring devices for continuously forcing the said presser follower toward the delivery mechanism, toggle lever and frame devices for retracting the presser follower and for locking the same to its retracted position, side guards preventing contact of the newspaper pack with the presser follower forcing means, and adjustable stops for regulating the closeness of final cooperative relation of presser follower and delivery mechanism.

12. In a vending machine, a receptacle for holding the papers in bulk, said receptacle including a hinged top and a hinged front section adapted to be let down into a horizontal position when the top is open, means for holding said front portion in the horizontal position, said receptacle having a discharge throat that extends below the lower front end of the receptacle, said receptacle including an adjustable bottom, and a flexible guide plate in said throat cooperating with said adjustable bottom, means for feeding the paper pack forwardly and means for discharging the papers one at a time through said throat.

13. In a paper vending machine wherein is provided a housing to contain papers in pack form, and means for delivering papers out of the housing; a presser follower for engaging the pack and forcing the same toward the delivery means, said follower including a presser bar, end guides for said bar, flexible connections between said guides and the bar ends, and means for applying yielding pressures to said guides for forcing them forward.

14. In a paper vending machine wherein is provided a housing to contain papers in pack form, means for delivering papers out of the housing; a presser follower for engaging the pack and forcing the same toward the delivery means, said follower including a presser bar, end guides for said bar, flexible connections between said guides and the bar ends, means for applying yielding pressures to said guides for forcing them forward, and a back plate carried by said bar to project up and sustain the pack vertically.

15. In a paper vending machine wherein is provided a housing to contain papers in pack form, means for delivering papers out of the housing; a presser follower for engaging the pack and forcing the same toward the delivery means, said follower including a presser bar, end guides for said bar, flexible connections between said guides and the bar ends, means for applying yielding pressures to said guides for forcing them forward, means to withdraw said follower from the pack against the action of said pressure

applying means, and means to hold the follower withdrawn.

16. In a paper vending machine wherein is provided a housing to contain papers in pack form, means for delivering papers out of the housing; a presser follower for engaging the pack and forcing the same toward the delivery means, said follower including a presser bar, end guides for said bar, flexible connections between said guides and the bar ends, means for applying yielding pressures to said guides for forcing them forward, means to withdraw said follower from the pack against the action of said pressure applying means, means to hold the follower withdrawn, said holding means including a toggle device.

17. In a vending machine of the type having a housing, a bottom rest plate, a feed roll and a presser follower for advancing the papers to the feed roll; said presser follower comprising a rigid bottom bar and a flexible back plate secured thereto and extending upwardly therefrom, guide rails at

each side of the housing, running front to back and lying in a horizontal plane in substantial alignment with the axis of said roll, slide members mounted on said rails, a yieldable connection between said follower bar and each of said slide members whereby said slide members may move independently of one another to advance and retract the bar, two sets of bell crank levers mounted on the casing, one of said levers engaging one slide member and the other engaging the other slide member, springs connecting with said levers for exerting continuous pressure on said slide members in one direction to advance the follower, and means normally out of engagement with said bell crank levers and adapted to be brought into engagement with the same for moving them against spring tension to retract the follower, and means for holding said last named means with the follower in the retracted position.

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