July 11, 1950 R. E. ELVERS 2,514,631

VENDING MACHINE

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Fig. 1.

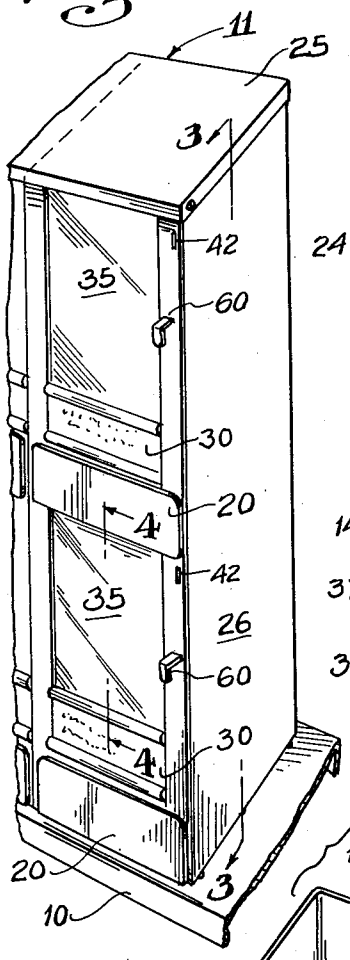


Fig. 2.

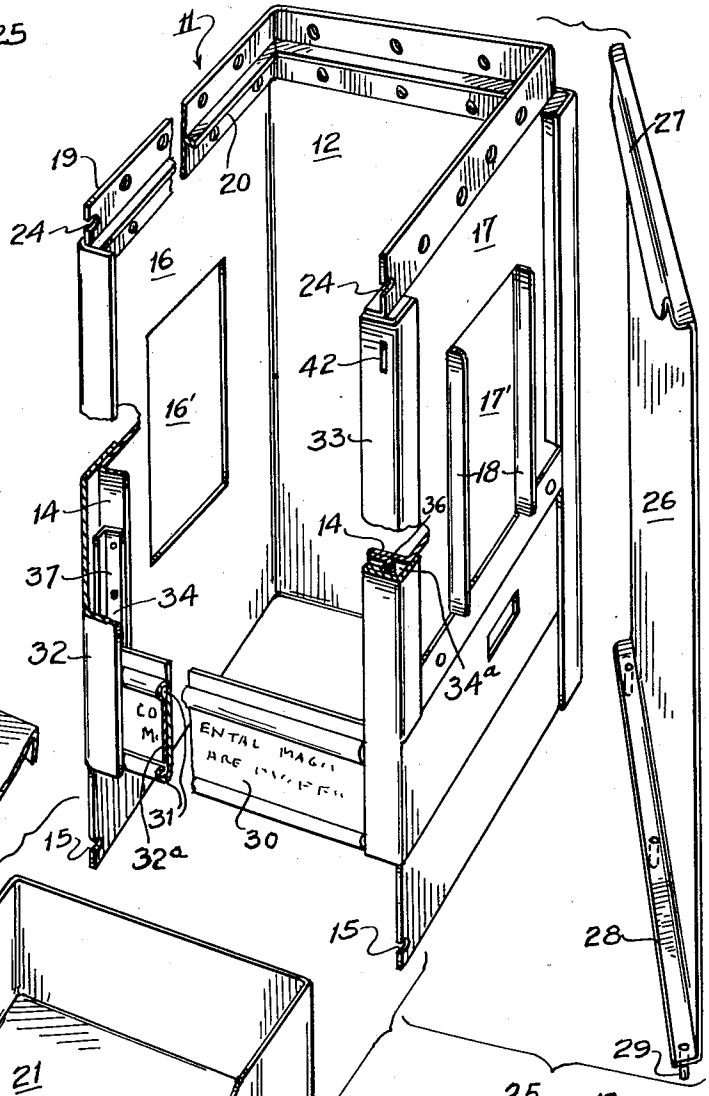


Fig. 3.

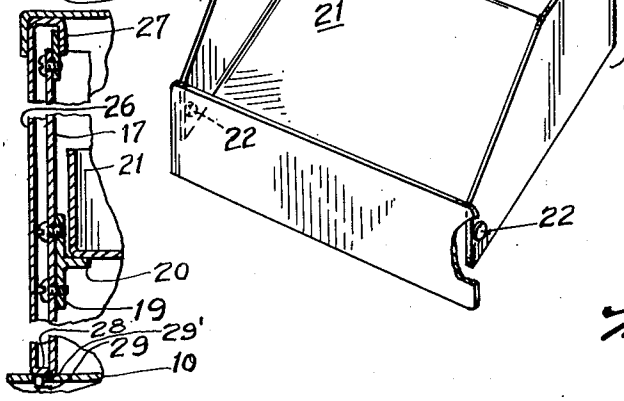
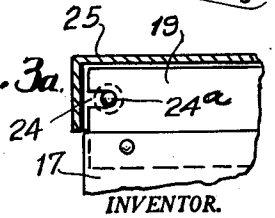


Fig. 3a.



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Fig. 4.

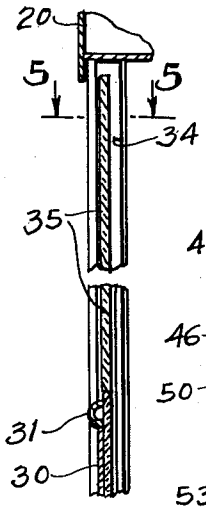


Fig. 5.

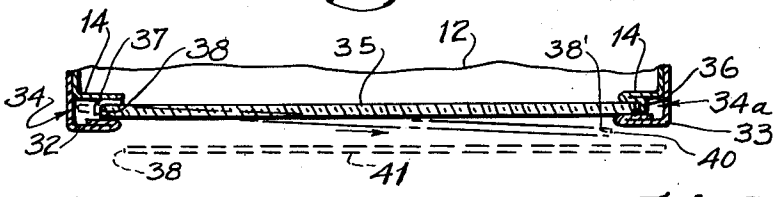


Fig. 7.

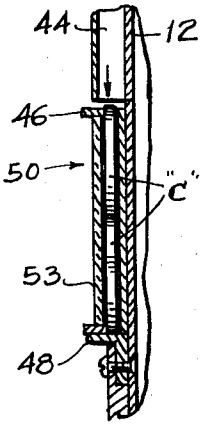


Fig. 6.

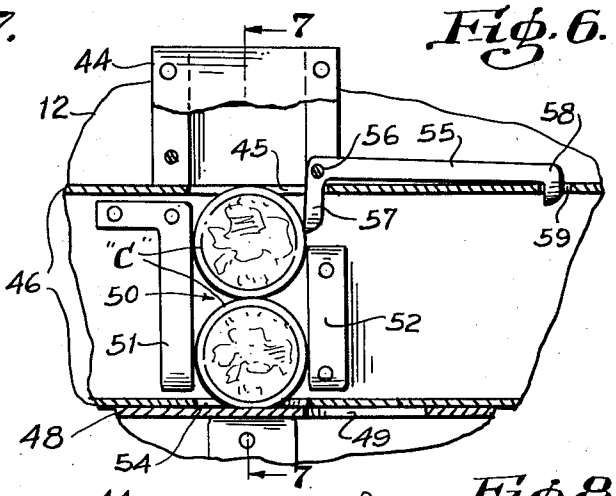
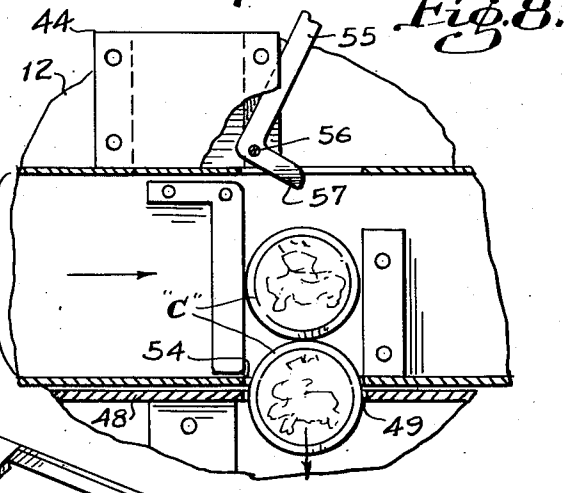


Fig. 8.



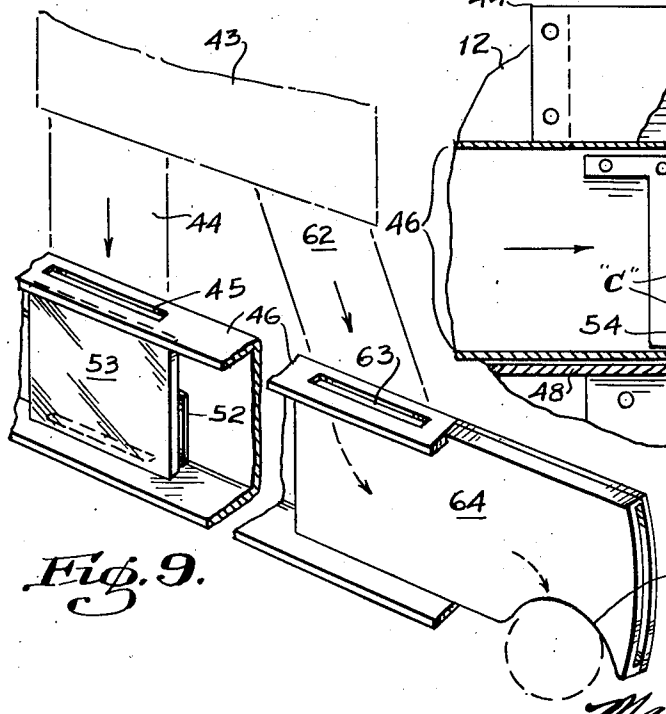


Fig. 9.

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VENDING MACHINE

Roy E. Elvers, Los Angeles, Calif.

Application August 19, 1946, Serial No. 691,450

5 Claims. (Cl. 312—107)

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The present invention relates to a magazine and newspaper vending machine.

A primary object of my invention is, the provision of a plurality of units that may be attached to the base unit, to increase the capacity and range of the vending machine.

An important object, is to provide interlocking units that may be added one above the other and also connected in a lateral manner with the use of end and top plates cut to accommodate the number of units desired.

Another object is, to provide a U-shaped structural member that will serve to hold the drawer of the vendor unit in position and also, in the case of the uppermost unit, to hold the lid in position.

Another object of the invention is to provide a coin control that will utilize two or more coins of the same denomination and will also reject slugs automatically.

Another object, is to provide a glass front for the machine and a means for holding the glass in position so as to render removal of the glass convenient, quick and simple.

Other objects and advantages of the invention will become apparent from the drawings and the following description.

In the drawings:

Fig. 1 is a perspective view of a magazine and newspaper vending machine constructed in accordance with my invention and showing a plurality of units.

Fig. 2 is a perspective or exploded view showing the basic elements utilized.

Fig. 3 is a sectional view taken on the line 3—3 of Fig. 1.

Fig. 3a is a fragmentary section through the lid of the vendor, showing the method of locking the same in position.

Fig. 4 is a sectional view on the line 4—4 of Fig. 1 showing the glass door in position.

Fig. 5 is a sectional view on the line 5—5 of Fig. 4.

Fig. 6 is a fragmentary elevation of the coin actuated control bar.

Fig. 7 is a section on the line 7—7 of Fig. 6.

Fig. 8 is a view similar to Fig. 6, but showing an advanced position of the parts.

Fig. 9 is a fragmentary perspective view of the control bar.

Referring by numerals to the accompanying drawings 10 designates a base of suitable size and material to support the desired number of vending units; and numeral 11 designates the units.

The basic member of the vendor is a U-shaped

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box or casing 12 having inturned flanges 14 at its front or open face and terminating above the bottom edge. Notches 15 are cut near the bottom edge of box 12.

The side walls 16 and 17 are provided with rectangular apertures 16'—17' and an aperture 17' is provided with vertical, out-turned flanges 18 adapted to enter the aperture 16 of the next adjacent unit when the units are being multiplied. This permits the units to be nested.

A horizontally disposed U-shaped frame 19 having an inturned ledge 20 mounted in the lower portion of housing 12, supports the drawer 21 as in Fig. 3, and the latter having lugs 22 adapted to engage notches 15 to hold the drawer in position. As shown in Figs. 2 and 3a, frame 19 is provided with notches 24 to receive the lugs 22 of the drawer, or a screw 24a of the lid 25.

An end plate 26 of a size consistent with the end area of the assembled units, is provided as in Fig. 2, and has a locking flange 27 to engage frame 19, see Fig. 3, and a bottom inturned flange 28 provided with depending pins 29 adapted to fit in apertures 29' in base 10.

As in Fig. 2, the flanges 14 are connected by a plate 30, having beads 31 to retain a card, 32a having explanatory or advertising matter thereon.

As in Figs. 2 and 5, the casing 12 is provided adjacent flanges 14, with a pair of flanges 32 and 33, co-extensive and spaced from the same, to form channels 34 and 34a for the front window glass 35.

The flange 14 at 36 (see Fig. 5) is turned at right angles to form a stop for the edge of the glass 35, and at 37 a similar stop is provided in channel 34.

Stop 37 consists of a short angle strip (see Fig. 2) so that the glass 35 may be readily raised and removed when necessary. As may be seen in Figs. 4 and 5, the drawer 20 may be removed to permit the glass 35 to be raised above the top of stop 37. The edge 38 of the glass is then withdrawn into the channel 34 so that edge 38' of said glass may be freed of the channel 34a, as at 40. The glass is next advanced to the right, to free edge 38 and then removed entirely as at 41.

Figures 6, 7, 8 and 9 illustrate the novel coin control wherein two or more coins of the same denomination may be used as actuating means.

To make a purchase, the coins C are inserted in slot 42, see Fig. 1, and are received in box 43 of Fig. 9, to actuate merchandise releasing

mechanism (not shown) and are then guided by chute 44 into slot 45 of the coin slide 46.

The coin slide is channel shaped, and is slidably supported upon angle 48, having a slot at 49. The coins C drop through slot 45 into a box 50 formed by retainers 51 and 52 and glass plate 53, the lowermost coin passing into slot 54 and resting upon angle 48.

A detent 55, pivoted at 56 to the frame, has a leg 57 normally in contact with the top coin C, and through the medium of leg 58 extending into slot 59 of the coil slide, prevents a movement of the slide until the purchaser inserts two coins and pushes the exposed end 60 of the slide, see Fig. 1.

At this time, see Fig. 8, the coin C swings detent 55 upon its pivot, releasing leg 58 and permitting the coin slide 46, to move forward to a point where slots 54 and 49 are in alignment. At this point, the coins may drop into a suitable container (not shown).

Any slugs received by the box 43 are diverted into chute 62 and thence into slot 63 of the coin slide. A plate 64 forms a housing to guide the slug to opening 65 whereby it is dropped into a separate container (not shown).

From Fig. 6, it is obvious that the machine cannot be operated without the required number of coins, since it is the top coin that actuates detent 55 to release the coin slide 46. Suitable means may also be provided to return coins when the machine is empty.

From the foregoing it is evident that I have provided a novel merchandise vending machine, especially suited to the selling of newspapers and magazines, wherein any desired number of basic units may be connected vertically or laterally to suit a limited space.

I have also provided a novel coin control unit that utilizes two or more coins of the same denomination to operate the vendor.

While I have illustrated and described a preferred embodiment of my invention, it is understood that numerous changes in the size, form and construction of the parts may be made within the scope of the invention as set forth in the appended claims.

I claim as my invention:

1. In a vending machine, a housing including a rear wall, side walls and inturned flanges on the front edges of said side walls, a U-shaped frame mounted in the lower portion of said housing, a mechandise drawer supported for sliding

movement on the frame, angle members carried by the side walls of the housing inwardly from said inturned flanges and combining therewith to provide vertical channels, a tie plate connecting the angle members, and a transparent door disposed within the channels and supported by said tie plate.

2. A vending machine as set forth in claim 1, in which one of the side walls of the housing is provided with an aperture and the opposing side wall has a plurality of pressed out flanges, so that a plurality of housings may be nested together in a lateral manner by inserting the flanges of one side wall into the aperture of the next adjacent side wall.

3. A vending machine as set forth in claim 1, in which the U-shaped frame is provided at its open end with notches, said merchandise drawer having end, bottom and side walls, and lugs carried by the side walls adapted to engage the notches of the U-shaped rail to prevent dislocation of the merchandise drawer.

4. A vending machine as set forth in claim 1, in which the U-shaped frame, T-shaped in cross-section, is provided above and below the horizontal leg of the T with a plurality of holes, adapted for use in securing the walls of housings when one is superimposed on another.

5. A vending machine as set forth in claim 1, in which one of the inturned flanges of the housing is doubled upon itself and then bent at right angles to provide a transparent door stop flange, and the other inturned flange being provided with an angle stop member, said angle member terminating between the tie plate and the upper end of the housing so that the transparent door may be lifted above the angle stop member for removal from the channel.

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