April 23, 1929. L. J. DISSER, SR 1,710,209

VENDING MACHINE

Filed Feb. 19, 1927 3 Sheets-Sheet 1

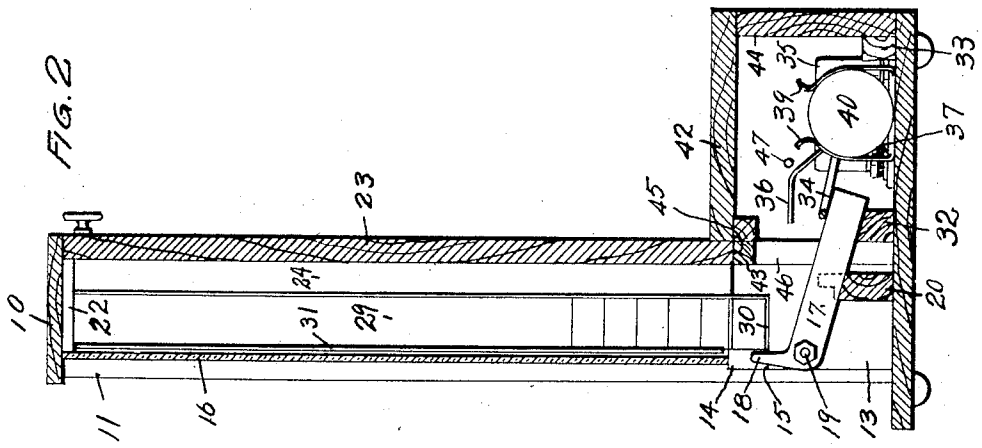


FIG. 2

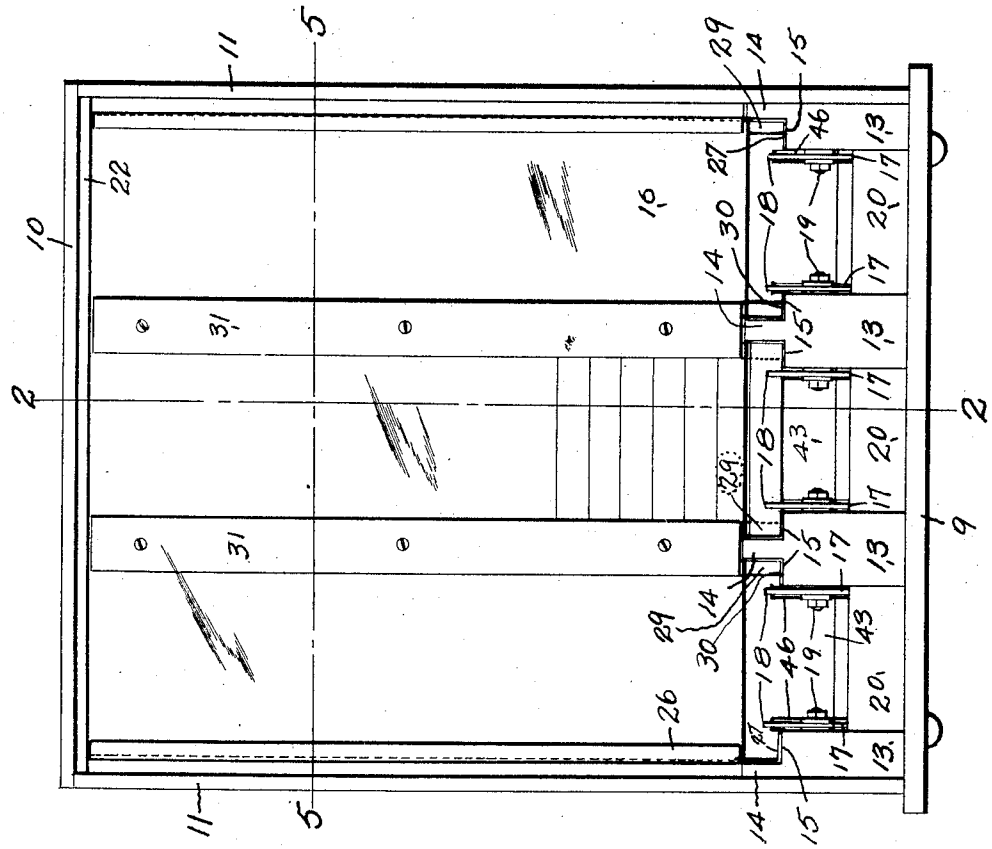


FIG. 1

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VENDING MACHINE

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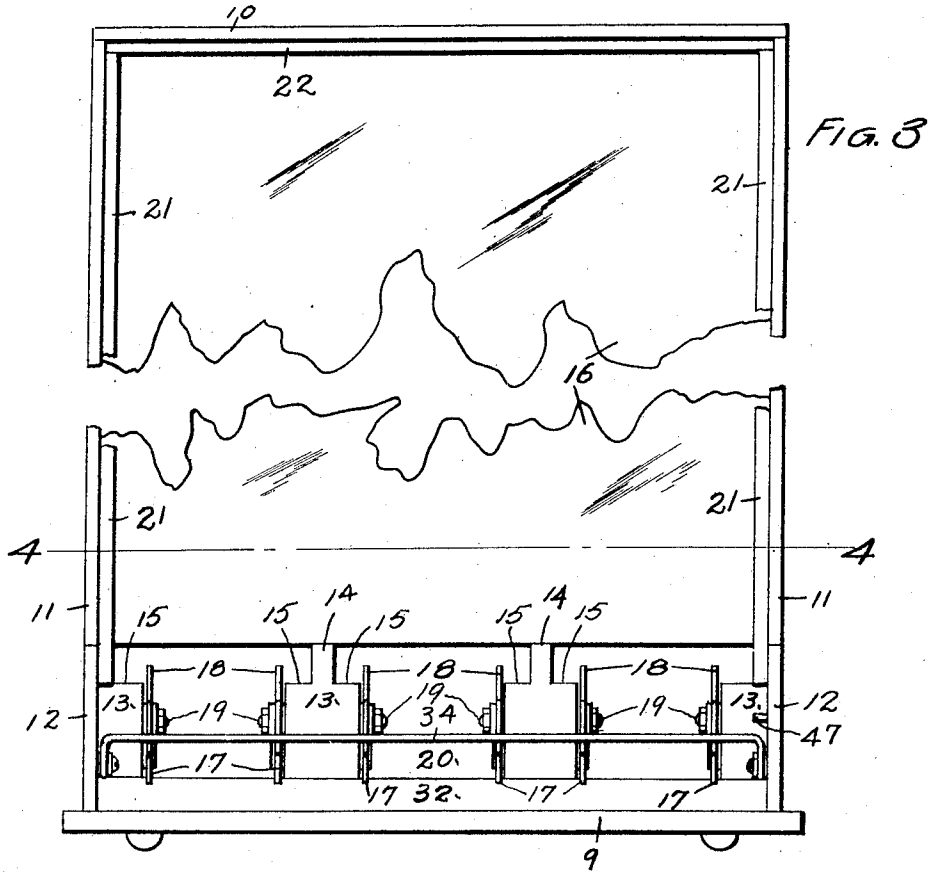
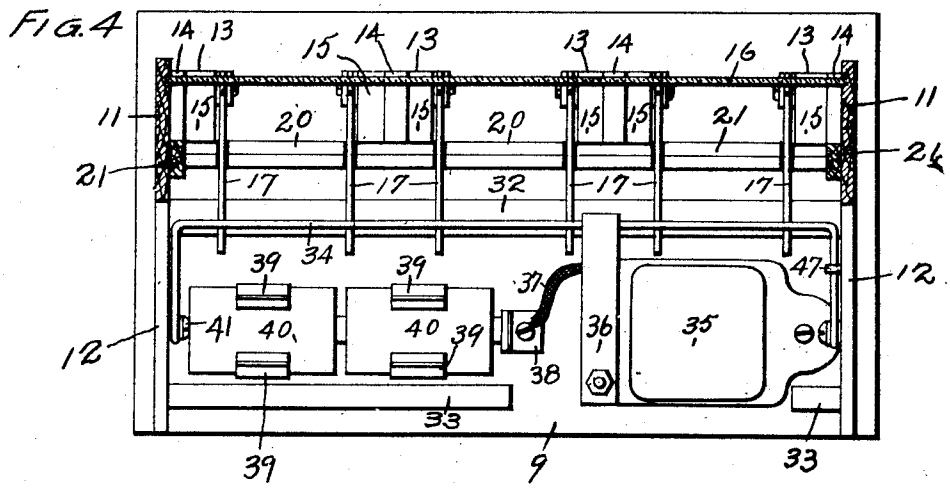


FIG. 3

FIG. 4



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VENDING MACHINE

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FIG. 5

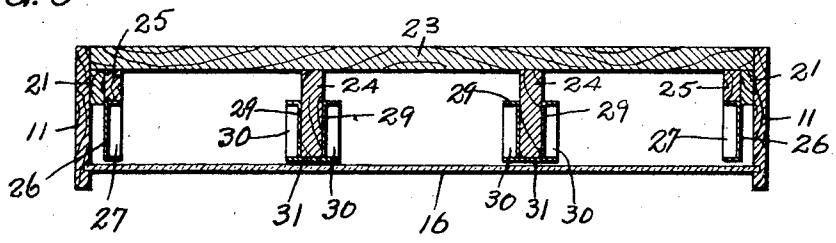


FIG. 6

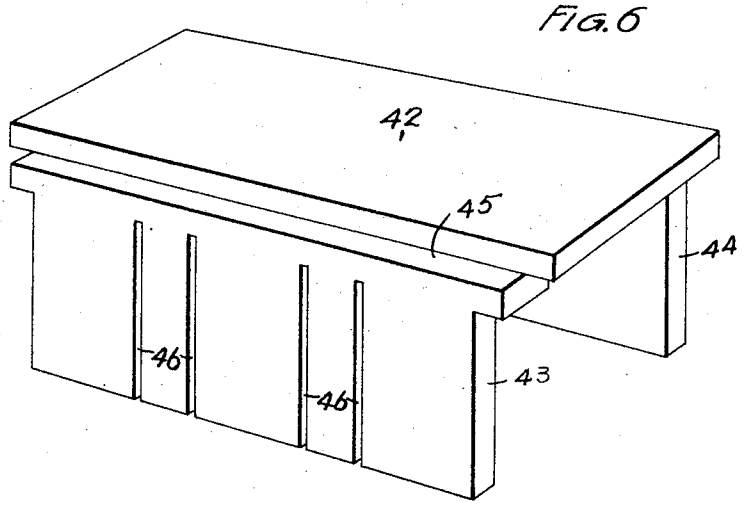


FIG. 7

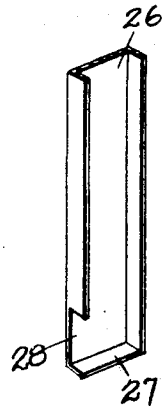
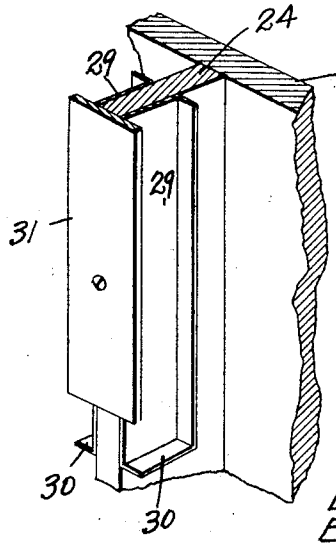


FIG. 8



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Patented Apr. 23, 1929. 1,710,209

UNITED STATES PATENT OFFICE.

LOUIS J. DISSER, SR., OF FERGUSON, MISSOURI.

VENDING MACHINE.

Application filed February 19, 1927. Serial No. 169,477.

My invention relates to improvements in vending machines, and has for its primary object a vending machine which is designed to contain a number of articles and hold them in such a manner that they can be readily removed, one at a time by the customer.

A still further object is to construct a vending machine which is so arranged that when an article is removed, an audible signal is given notifying the seller that an article has been removed from the machine.

My device is especially useful in vending mints, chewing gum, or, in fact, any article which can be put up in containers.

The particular advantage of giving an audible signal every time an article is removed is that I have discovered that in cases where silent vending machines are used, the seller loses quite a few articles through dishonesty of the purchasers, they removing articles and not paying for them. With my device, however, this is impossible because in order to remove an article the alarm or signal must be sounded.

In the drawings:

Fig. 1 is a front view of my device;

Fig. 2 is a vertical section taken on the line 2—2 of Fig. 1;

Fig. 3 is a rear view of the device with parts broken away, the signaling apparatus, its cover, and the back of the machine being removed;

Fig. 4 is a horizontal section taken on the line 4—4 of Fig. 3 with the signaling apparatus installed;

Fig. 5 is a horizontal section taken on the line 5—5 of Fig. 1;

Fig. 6 is a perspective view of the cover for the signaling apparatus;

Fig. 7 is a fragmental perspective view of the end portion of one of the magazines; and

Fig. 8 is a perspective fragmental section of one of the intermediate magazine sections.

In the construction of my device I employ a vertically extending casing having a bottom 9, a top 10, and side members 11. The side members 11 are provided with rearwardly extending portions 12, which are of less height than the balance of the members. Carried by the base 9 are a plurality of blocks or standards 13, which have reduced upper portions 14 so as to form shoulders 15. Carried by the side members is a sheet of glass 16, which is inserted in grooves in the side members, its lower edge resting on the reduced portions 14. This glass is held against removal by means of the top 10.

Pivotally secured to the blocks or standards 13 are a plurality of levers 17, which are provided with upwardly extending fingers 18. The levers 17 are pivotally mounted by means of screws or bolts 19.

Carried by the base 9 are blocks 20, which are slotted so as to receive a portion of the levers 17 preventing the levers from moving sideways. Secured to the side members 11 are blocks 21 and to the top member a block 22. These blocks act as stops for the door 23. Carried by the door 23 are strips 24 and 25. These strips extend forward and have secured thereto the portions of the magazines, the strips 25 carrying a substantially channel shaped member 26, which is closed at its bottom as indicated by the numeral 27, but which has a cutaway portion 28 at its front wall. This cutaway portion is of such a height as to be only slightly greater than the height of the package to be removed so that it will be impossible to remove more than one package from a magazine at a time.

Secured to each side face of the members 24 are vertical magazine sections 29. These members 29 are substantially L shaped in cross section and are provided with a bottom 30, the bottoms 27 and 30 acting as supports for the articles. Carried by the front edge of the strips or members 24 are strips 31, which form a forward wall of the magazine sections. The strips 31 terminate at a distance above the bottoms 30 so as to leave a space for removal of the articles.

Secured to the bottom 9 are also strips 32 and 33, the purpose of which will be explained in detail later. Pivotally carried by the portion 12 of the sides 11 is a U shaped trigger 34 which is so arranged that it extends completely across the space between the two side members and is above and rests on the levers 17 in such a manner that when the levers are tripped or tilted by removing an article, the trigger will be raised.

Carried by the base 9 is a signaling device 35, which in the present instance, is in the form of an electric buzzer, although I do

not desire to limit myself thereto since other devices, which make an audible signal, can be used.

Carried by one of the binding posts of the buzzer is an arm 36 which is preferably of spring brass or copper and forms a terminal or contact when the trigger 34 is raised. Secured to the opposite binding post of the buzzer is an electric conductor 37, its opposite end being attached to a contact plate 38.

Secured to the bottom 9 are spring clips 39 in which dry cells 40 are inserted. These cells are preferably of the type used in flash lights.

It will be noted from Fig. 3 that one pole of the source of electric energy is attached or contacts with the contact plate 38, the other pole contacting with the pivot point 41 of the trigger 34. In this way when the trigger is raised so that it contacts with the arm or contact 36 a complete electric circuit will be formed and the buzzer operated.

In order to prevent any tampering with the signaling device a cover therefor is made use of, which has a top 42, a front 43, and a back 44. The front 43 is offset so as to provide a shoulder 45, which serves as a rest for the lower end of the door 23. See Fig. 2. The front is also provided with slots 46 through which certain of the levers 17 extend. The purpose of thus constructing the front is to prevent all possibility of any tampering with the signaling device from the front of the vending machine. In fact the cover must be removed in order to get at the signaling apparatus.

The cover is prevented from moving forward and backward by means of strips 32 and 33, the one contacting with the front 43 on its inside and the other with the back 44 on its inside. The extensions 12 form the sides of the cover. In addition to this the cover may be locked in position or secured on the sides by means of screws. The back 23 may also be provided with suitable locking means so as to prevent unauthorized opening.

The operation of my device is as follows: After the device has been properly assembled and the signaling apparatus installed, the same is enclosed by means of its cover. The magazines carried by the back are then filled and the back placed in position. When the back is in position the ends 27 and 30 of the magazine sections rest on the shoulders 15 in such a manner that the fingers 18 of the levers extend above the lower edge of the lowermost article. Then when an article is removed, the prospective purchaser inserts his finger between a pair of levers, grasps the article, and pulls it forward. In so doing the fingers 18 are moved forward, that is swung around the pivot 19, raising the rear end of the lever 17. The raising of this lever raises the trigger 34 and in so doing causes it to contact with the contact arm 36 completing the electric circuit through the buzzer and sounding the signal. In order to prevent the trigger from being moved too far upward, a stop 47 is employed.

Having fully described my invention, what I claim is:—

1. A vending machine comprising a casing having a transparent front, a plurality of vertically parallel magazines formed in said casing to the rear of said front, each of said magazines having an opening in its front and at its bottom so that only one article at a time can be removed therethrough, a plurality of levers pivotally carried by said casing below the magazines and having a portion thereof extending upward in front of said openings so that when an article is removed certain of the said levers will be tilted, a pivoted trigger located within said casing and adapted to be operated by the tilting of said levers, and means operated by said trigger for placing an audible signal in operation.

2. A vending machine comprising a casing having a transparent front, a plurality of vertically parallel magazines formed in said casing to the rear of said front, each of said magazines having an opening in its front and at its bottom so that only one article at a time can be removed therethrough, a plurality of levers pivotally carried by said casing below the magazines and having a portion thereof extending upward in front of said openings so that when an article is removed certain of the said levers will be tilted, a pivoted trigger located within said casing and adapted to be operated by the tilting of said levers, means operated by said trigger for placing an audible signal in operation, and a cover for said trigger for preventing tampering with the same.

In testimony whereof I have affixed my signature.

LOUIS J. DISSER, Sr.