July 22, 1941. G. A. BLAKE 2,250,351

DISPENSING APPARATUS

Filed Oct. 18, 1939

FIG. 1.

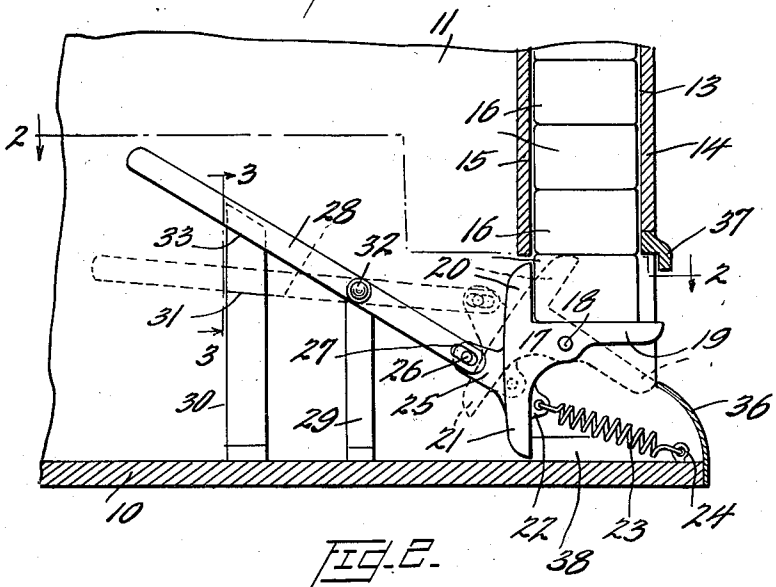
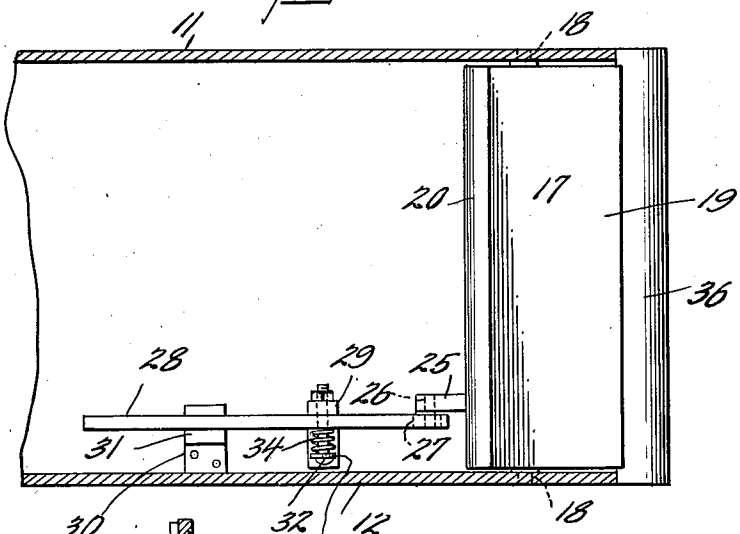


FIG. 2.



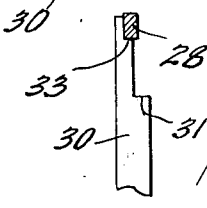


FIG. 3.

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DISPENSING APPARATUS

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Application October 18, 1939, Serial No. 300,084

3 Claims. (Cl. 312—63)

This invention relates to dispensing devices and more particularly to manually actuated devices of the general character disclosed in my prior United States Patent No. 2,163,081, such devices being adapted to deliver articles or packages of merchandise such as candy, cigarettes, and the like, or other goods which are ordinarily enclosed in packages or cartons of a size adapted to be conveniently dispensed by such a device.

It is a general object of the present invention to provide a dispensing device of the character described and which is of a novel and advantageous construction.

Another object is the provision of a dispensing device of the character described, in which the merchandise is exposed to view, including the last article or package within the device, but may not be removed by unauthorized persons.

Another object is the provision of a device of the character described, which is an improvement upon the device disclosed in the prior patent identified above, in that its construction is even more economical, and its mode of operation more simple than in the case of said prior device.

Other and further objects, features and advantages of the present invention will be apparent to one skilled in the art from the following description taken in connection with the accompanying drawing in which:

Figure 1 is a vertical sectional view of a device constructed in accordance with the present invention;

Figure 2 is a horizontal section on line 2—2 of Figure 1; and

Figure 3 is a vertical section on line 3—3 of Figure 1, illustrating a detail of the actuating mechanism.

In order to facilitate an understanding of the invention, reference is made to the embodiment thereof shown in the accompanying drawing and detailed descriptive language is employed. It will nevertheless be understood that no limitation of the invention is thereby intended and that various changes and alterations are contemplated such as would ordinarily occur to one skilled in the art to which the invention relates.

Referring more particularly to the drawing, the device of the present invention is adapted to rest upon a store counter or similar support, and comprises generally a base 10, vertical side walls 11, 12 extending upwardly from the lateral edges of the base 10, a chute 13 disposed at the forward end of the device and adapted to contain a supply of articles to dispense, and an ejecting mechanism disposed beneath the chute 13. The chute 13 is comprised by the side walls 11 and 12, the forward wall 14, which may be transparent if desired, and a transverse partition 15 which extends between the side walls 11 and 12. The chute 13 is preferably proportioned in accordance with the horizontal dimensions of the articles of merchandise to be dispensed, such articles being designated by the reference character 16 (Figure 1). The partition 15 may, if desired, be replaced by oppositely disposed inwardly projecting vertical flanges secured to the respective side walls 11 and 12, as in the case of my above identified prior patent, which permits ready access to the articles in the chute by a person standing in the rear of the device. The rear of the device is left open in order to enable authorized persons to have convenient access to the article ejecting mechanism, the device being intended for use on a showcase or counter, or other suitable surface, with its front facing the customer.

An ejector member 17, of a length approximating the distance between the side walls 11 and 12, extends across the device directly beneath the chute 13 and is provided at its respective ends with trunnions 18 journalled in the side walls 11 and 12 respectively. The ejector member 17 is formed with a horizontal portion 19 which is normally adapted to support the stack of articles 16 in the chute, and a vertically extending portion 20 which is normally adapted to engage the rearward side of the lowermost article. The ejector is so positioned, relative to the lower end of the chute, that the horizontal portion 19 is spaced from the lower end of the chute by a distance approximating the vertical dimension of a single article of merchandise, and the vertical portion 20 of the ejector is of a height slightly less than the vertical dimension of a single article.

A downwardly extending portion 21 of the ejector 17 is provided with the apertured lug 22 on its forward surface, to which is secured a spring 23, the opposite end of the spring being secured to an eye 24 fastened in the base 10. The spring 23 normally maintains the ejector 17 in the position shown in full lines in Figure 1, the downwardly extending portion 21 of the ejector engaging, in this position, a stop member 38 fastened to the base 10.

The ejector 17 is similarly provided, on its rearward side, with a lug 25 in which is secured a pin 26. The latter is adapted to slidably engage the slot 27 formed in the forward end of the actuating lever 28 which is pivoted on a

standard 29 secured to the base 10. Secured to the base 10 rearwardly of the standard 29 there is provided a second standard 30, the shoulder 33 near the upper end of which is adapted to support the lever 28 when the latter is in its inoperative position. The standard 30 is also provided with an inclined shoulder 31 adapted to serve as a stop limiting the downward movement of the lever 28, it being understood that the shoulder 31 is so formed and disposed as to permit just the requisite movement of the lever 28 in order to actuate the ejector mechanism. As will be seen in Figure 2, the lever 28 is loosely journalled on a pivot 32 secured to the standard 29 so as to allow the lever to be rocked laterally sufficiently to pass the shoulder 33 of the standard 30, thus permitting the lever 28 to be depressed for the purpose of actuating the ejector. When the lever 28 is returned to raised position, however, it will be urged to a locked position over the shoulder 33 by means of a spring 34 which surrounds the pivot 32 and is under compression between the lever 28 and washer 35.

Preferably an upwardly extending inwardly curved hood 36 is secured to the forward edge of the base 10 and extends to a line approximating the position of the forward edge of the ejector 7 when it is in ejecting position.

In order that an unauthorized person may not be able to withdraw the article which rests upon the horizontal portion 19 of the ejector, the forward wall 14 of the device, which comprises the forward wall of the chute, must extend below the lower edge of the partition 15, to such a point that the distance between the lower edge of the wall 14 and the forward edge of the horizontal portion 19 of the ejector is less than the vertical dimension of the article of merchandise. In the present embodiment the lower edge of the wall 14 is provided with a downwardly and outwardly extending lip 37 which serves to prevent the unauthorized removal of the lowest article 16 while at the same time exposing it to view, so that a prospective purchaser will know that the device contains at least one article or package. By reason of the construction and arrangement of the actuating mechanism, however, as described above and as more fully pointed out in my prior Patent No. 2,163,081, the ejector 17 may not be manipulated from the front of the device, so as to permit the removal of the article 16.

When the lever 28 is depressed, the ejector 17 is tilted as shown in broken lines in Figure 1, and the lowermost article 16 is permitted to slide beneath the lip 37 and out onto the counter or other support. At the same time, the remaining articles in the chute are supported by the portion 20 of the ejector until the latter returns to its normal position under the influence of the spring 23, when the articles in the chute will fall by gravity until the lowermost article rests on the portion 19 of the ejector.

Having thus described the invention, what is claimed as new and desired to be secured by Letters Patent is:

1. In a dispensing device or articles of merchandise, a chute adapted to contain a supply of articles to be dispensed, an ejector member pivoted beneath said chute and having a normally horizontal portion adapted to support the articles in said chute and a normally vertical portion adapted to engage the rear side of the lowermost article, and means to rock said ejector member forwardly so that the said lowermost article is caused to slide beneath the lower front edge of said chute and out of said device, said ejector member being so disposed relative to the lower front edge of said chute as to normally prevent the passage of said lowermost article therebetween, while at the same time exposing said article to view, the upper end of the vertical portion of said ejector member in the rocked position of the ejector member being adapted to engage under the article next above said lowermost article to thus temporarily support the articles remaining in the chute.

2. In a dispensing device for articles of merchandise, a chute adapted to contain a supply of articles to be dispensed, an ejector member pivoted beneath said chute and having a normally horizontal portion adapted to support the articles in said chute and a normally vertical portion adapted to engage the rear side of the lowermost article, means to rock said ejector member forwardly so that the said lowermost article is caused to slide beneath the lower front edge of said chute and out of said device, said ejector member being so disposed relative to the lower front edge of said chute as to normally prevent the passage of said lowermost article therebetween, while at the same time exposing said article to view, and means for preventing the actuation of said ejector member from the front thereof, the upper end of the vertical portion of said ejector member in the rocked position of the ejector member being adapted to engage under the article next above said lowermost article to thus temporarily support the articles remaining in the chute.

3. In a dispensing device for articles of merchandise, a chute adapted to contain a supply of articles to be dispensed, an ejector member pivoted beneath said chute and having a normally horizontal portion adapted to support the articles in said chute, and a normally vertical portion adapted to engage the rear side of the lowermost article, and means to rock said ejector member forwardly so that the said lowermost article is caused to slide beneath the lower front edge of said chute and out of said device, said lower front edge of said chute having the form of a short outwardly and downwardly projecting lip, the lower edge of said lip being so spaced from the front edge of said horizontal portion of said ejector member that the lowermost said article is exposed to view but is normally prevented from passing between said lip and said ejector, the upper end of the vertical portion of said ejector member in the rocked position of the ejector member being adapted to engage under the article next above said lowermost article to thus temporarily support the articles remaining in the chute.

GEORGE A. BLAKE.