Apr. 24, 1923. 1,452,659

J. J. SEELMAN

DISPENSING DEVICE

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FIG. 1

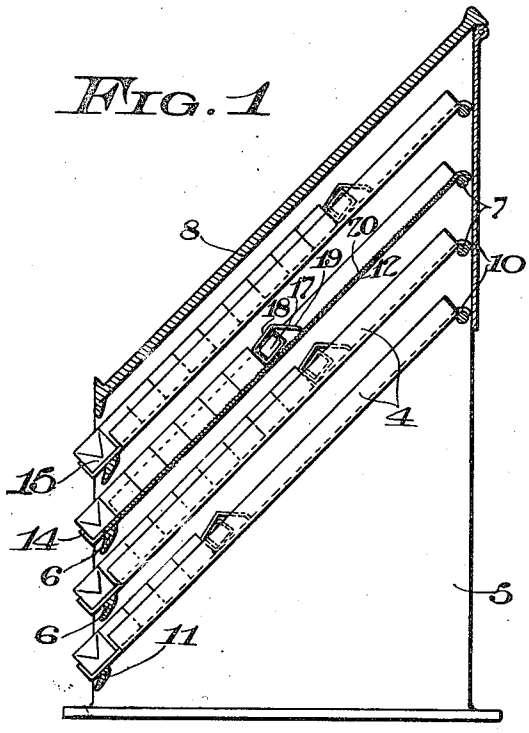


FIG. 2

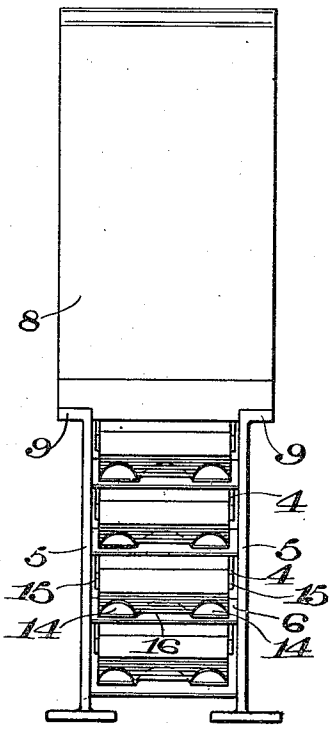
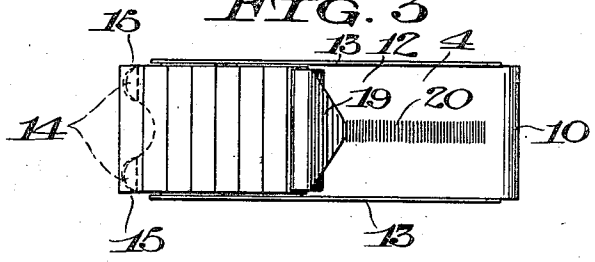


FIG. 3



WITNESSES

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FIG. 5

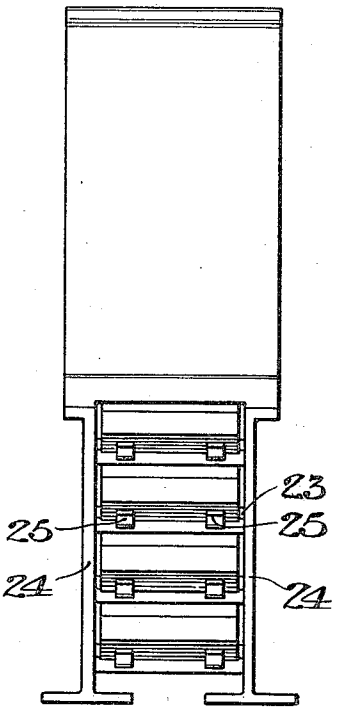


FIG. 4

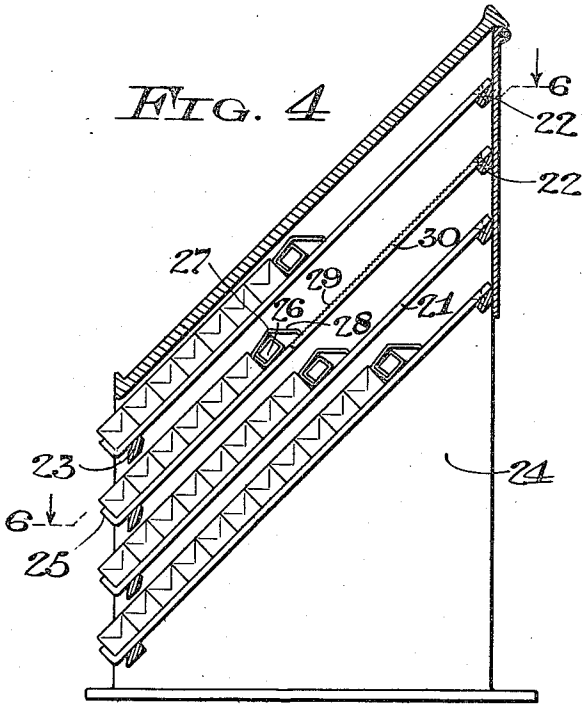


FIG. 6

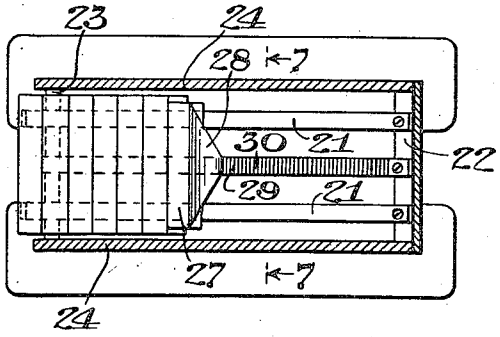
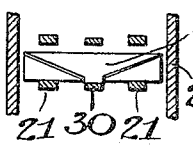


FIG. 7



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UNITED STATES PATENT OFFICE.

JOHN J. SEELMAN, OF MILWAUKEE, WISCONSIN.

DISPENSING DEVICE.

Application filed January 30, 1922. Serial No. 532,786.

To all whom it may concern:

Be it known that I, JOHN J. SEELMAN, a citizen of the United States, and resident of Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented new and useful Improvements in Dispensing Devices, of which the following is a description, reference being had to the accompanying drawings, which are a part of this specification.

The invention relates to dispensing devices.

In stores, news stands, and other places where candy, chewing gum or other articles are sold in package form, a saving in the clerk's time may be effected if such articles can be so displayed and placed that customers can help themselves. Where, as at present, such articles are spread out on counters and showcases, they take up considerable space, dust accumulates on them and pilfering is invited. In order to overcome these disadvantages, I have provided a dispensing device in which the packages are arranged in tiers and rows, thus taking up a minimum of space; only one package at a time is exposed to the dust of the room, the others being protected in a casing; the rows are inclined so that when the exposed package is removed the package next to it falls automatically into its place; pilfering is prevented by a warning signal operated on the removal of a package.

The invention further consists in the several features hereinafter set forth and more particularly defined by claims at the conclusion hereof.

In the drawings: Fig. 1 is a side view of a device embodying the invention, parts being shown in section; Fig. 2 is a front view of the device; Fig. 3 is a top view of one of the dispensing trays; Fig. 4 is a view similar to Fig. 1, showing a modified form of the device; Fig. 5 is a front view of the device shown in Fig. 4; Fig. 6 is a sectional view taken on the line 6—6 of Fig. 4; Fig. 7 is a detail sectional view taken on the line 7—7 of Fig. 6.

The device includes a plurality of article-holding chutes so arranged as to permit the removal of only one article at a time from a chute.

Referring to Figs. 1 to 3, inclusive, the chutes are formed by trays 4 supported in an inclined position to assist in the feeding of the articles to a display and dispensing position. The tray support includes end frame members 5 connected by transverse members 6 and rods 7 and having a top plate 8 connected to the flanged upper ends 9 of the members 5.

The members 6 and 7 are arranged in sets to form spaced supports or racks for the trays, the bottom portion of each tray having an integral hook portion 10 at its rear end and the forward portion of the tray resting upon the inclined face 11 of the member 6, this construction supporting the trays in an inclined position, as shown in Fig. 1.

Each tray is trough-shaped, with a flat bottom 12 and sides 13, and has upstanding spaced stops 14 at its front end, and side openings 15 adjacent thereto, and a finger recess 16 in the bottom adjacent the front end and so arranged that the articles stacked therein may be removed, one at a time, by grasping the top and bottom, or the ends, of the foremost article and lifting it from the tray. The front ends of the trays only project far enough in front of the frame to expose a single article in each tray. Furthermore, the trays are spaced close enough together to prevent the removal of articles therefrom except at the front.

As the articles are successively removed from a tray, the weight of the other articles will tend to move the whole column or stack downwardly, but to insure positive and automatic feed of the articles, I have provided a weighted follower which includes a metal bar or weight 17. This follower is positioned in the tray against the topmost article and since the tray is inclined the weight of said follower furnishes a positive force to move the whole stack of articles downwardly as soon as one of the articles has been removed from the delivery end of the tray.

The follower, in addition, is designed to cooperate with the tray to produce a warning signal during its movement. For this purpose a piece of sheet metal 18 is bent around or otherwise suitably secured to the bar 17 and has a rearwardly extending finger or tongue 19 engageable with a roughened or toothed portion 20 formed in the top of the tray bottom so that as the follower moves down the finger 19 sliding over such surface will produce a warning noise. The finger 19 is preferably resilient so as to vibrate in its passage over the surface 20 to produce a signal that will call the clerk's attention to the device when a person serves

himself to any of the articles therein. If the clerk is out of sight this noise will serve to inform him of the removal of the article and thus summon him to receive the purchase price from the person taking the article.

Referring to Figs. 4 to 7, inclusive, it will be observed that in this construction guide and supporting members 21, secured in inclined position to cross-members 22 and resting on similar members 23 connected to the sides of the casing 24, are provided with upturned ends 25 and cooperate with the casing to form built-in chutes upon which the articles are arranged, as previously described, and so that only one article is exposed to view in the front of the device and can be removed at one time. As before, a weighted follower is arranged to abut against the topmost article and includes a weight 26 which causes the articles to move downwardly as soon as one of the articles has been removed from one of the series of articles in a row or stack.

As before, this follower is adapted to sound a warning signal during its movement and for this purpose a piece of sheet metal 27 is bent around or otherwise suitably secured to the weight 26 and has a rearwardly extending finger or tongue 28 engageable with a roughened or toothed portion 29 formed in a bar 30, the level of which is somewhat below that of the members 21 so as not to engage the articles themselves. This finger 28, on sliding over the roughened portion 29, produces a warning noise and is preferably made somewhat resilient.

From the foregoing description, it will be noted that by arranging the articles in an inclined plane automatic feed of the articles to a display position is obtained, the articles themselves are well displayed, and all the rows may be of equal length with the front and back of the cabinet perpendicular, thus economizing space and at the same time having the front package of each row exposed to view in a position advantageous for display and easy removal. Furthermore, a large variety of packages can be displayed within a minimum of surface space, by this arrangement. All but the front package are protected from dust and these front packages are readily accessible for dusting, if necessary. The alarm mechanism guards against pilfering.

I desire it to be understood that this invention is not to be limited to any specific form or arrangement of parts except in so far as such limitations are specified in the claims.

What I claim as my invention is:

1. In a dispensing device, the combination, of a chute arranged to permit the removal of an article from a stack of articles therein, a follower for feeding the articles along the chute to a position for removal, and means operated by the movement of the follower for producing a warning signal.

2. In a dispensing device, the combination of a chute for a row of articles, a feed follower for said articles, a vibrating tongue carried by said follower, and means engaged by said tongue to produce a warning sound on the movement of the follower.

3. In a dispensing device, the combination of a chute for a row of articles, a feed follower for said articles, a vibratile tongue carried by said follower, and means on the chute engageable by the tongue to produce a warning sound on the movement of the follower.

4. In a dispensing device, the combination of a chute for a row of articles, a feed follower for said articles, a resilient vibratile tongue carried by said follower, said tongue engaging a corrugated surface on the chute to produce a warning sound on the movement of the follower.

In testimony whereof I affix my signature.

JOHN J. SEELMAN.