March 21, 1939. J. McKOOL 2,151,352

DISPLAY PACKAGE CARRIER FOR DISPENSERS

Filed Aug. 25, 1938

Fig. 1.

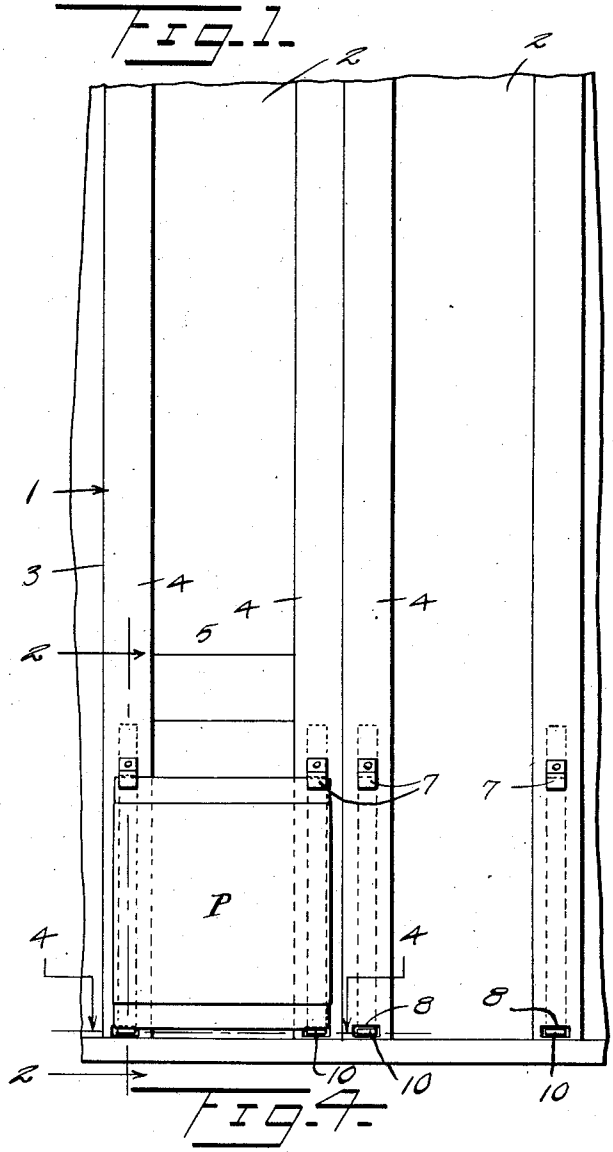


Fig. 2.

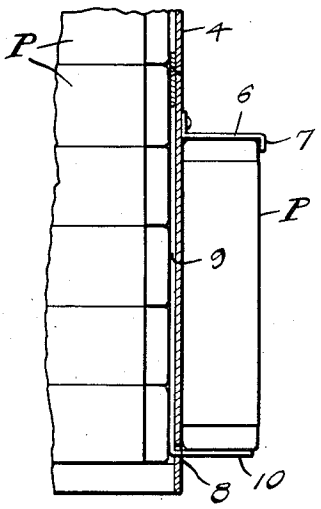


Fig. 3.

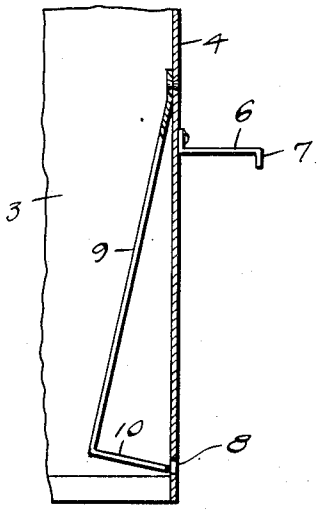
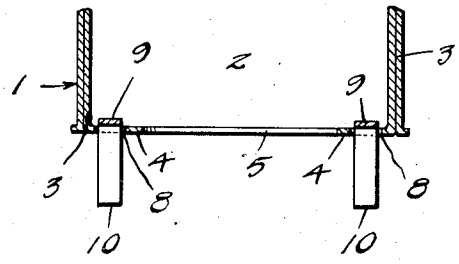


Fig. 4.



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Patented Mar. 21, 1939

2,151,352

UNITED STATES PATENT OFFICE

2,151,352

DISPLAY PACKAGE CARRIER FOR DISPENSERS

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Application August 25, 1938, Serial No. 226,800

3 Claims. (Cl. 116—114)

This invention relates to improvements in package dispensing apparatus and pertains particularly to a novel and improved means for indicating when the contents of the dispenser are exhausted.

The present invention is directed particularly to dispensers of packaged articles such, for example, as cigarettes and it has for its principal object to provide a novel means for supporting a package of the articles in the dispenser in such a position that it will be on display so long as the dispenser contains articles to be discharged and will be automatically dropped from view as soon as the last article has been removed from the dispenser, thus indicating that the dispenser or the particular column of a number of article containing columns, is empty.

Another object of the invention is to provide in a mechanism of the above described character, a novel means for supporting the display package in position for indicating that the contents of the dispenser are not exhausted, which is regulated by the presence of a package in the dispenser so that when the last package of the dispenser has been removed, the display article holding means will be released to move to a position where it will in turn release the display article or package and to allow it to be dropped into a position where it cannot be seen by prospective customers of the dispenser, so that the customer will be aware of the fact that the dispenser is empty.

The invention more specifically comprises, in association with a supporting means for a number of stacked packages, a fixed holding arm carried by the supporting means for engagement over one side of a display package, and a shiftable or sliding supporting means which is adapted to be moved to a position where it will engage across the opposite side of the display package from the fixed means, in which position it is held by packages in the carrier engaging against a resilient arm which carries the shiftable supporting means and which, when released by the removal of the last package from the carreir, moves in a direction away from the display package so as to retract the shiftable support therefor and allow the display package to be dropped.

The invention will be best understood from a consideration of the following detailed description taken in connection with the accompanying drawing forming part of this specification, with the understanding, however, that the invention is not to be confined to any strict conformity with the showing of the drawing but may be changed or modified so long as such changes or modifications mark no material departure from the salient features of the invention as expressed in the appended claims.

In the drawing:

Fig. 1 is a view in front elevation of a pair of article carriers showing the present invention in association therewith.

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

Fig. 3 is a sectional view similar to Fig. 2, but showing the carrier empty and the display package holder in released position.

Fig. 4 is a sectional view on the line 4—4 of Fig. 1.

Referring now more particularly to the drawing, the numeral 1 generally designates a carrier of the type commonly employed in dispensing machines for maintaining a stack of articles or packages of articles in position to be discharged one at a time from the lower end of the carrier. Since the carrier and the means for supporting the display article thereon and for releasing it when the carrier is empty, are the only parts of the dispensing machine which relate to the present invention, no parts of a dispensing machine have been shown, it being well understood by those familiar with the art, how these carriers are maintained in such a machine and how the articles or packages of articles are dispensed therefrom.

The carrier illustrated has a back wall 2, side walls 3 and the inwardly turned front wall flanges 4 which have their inner edges in spaced relation leaving the usual open area 5 which facilitates the introduction of articles into the carrier or their removal therefrom by hand through the upper part thereof when necessary. In carrying out the present invention, the front wall flanges of the carrier are each provided with a forwardly extending stationary arm 6 having at its outer end the downturned finger 7. The present invention is directed primarily to dispensers for cigarettes and, therefore, the length of each arm 6 will be sufficient to extend across the top of a package of cigarettes when such package is placed in upright position against the faces of the flanges 4 as illustrated, the package being designated by the character P, so that the finger 7 of each arm will extend down across the face of the package in the manner shown. While the present device has been designed for the specific use stated, it is to be understood that it is not to be limited to such use for it will be readily obvious that the invention may be employed in any dispensing machine

where the articles dispensed or the packages of the articles are of a nature to be handled in the same manner as cigarette packages.

Adjacent the lower end of each front wall flange 4, a slot 8 is formed which is directly below an arm 6 and secured to the inner side of each flange 4 at a substantial distance above the slot is a flat resilient spring arm 9 which extends downwardly to a point substantially in the same horizontal plane as the slot 8 of the adjacent flange and has rigidly secured to its lower end the shiftable package supporting bar 10 which is designed for reciprocatory movement through the adjacent slot 8. The spring arm 9 is so constructed that it will normally tend to oscillate away from the adjacent flange so that the lower end thereof will constantly tend to move toward the back of the carrier so as to retract the shiftable support 10 from the front of the carrier. As will be understood, there are two of these flat resilient arms 9 and two supports 10 and when the carrier is filled with the packages of cigarettes, these arms will be forced forwardly against the inner sides of the adjacent flanges 4 so that the supports 10 will be projected outwardly through the slots 8. Since the vertical distance between the shiftable supports 10 and the stationary arms 6 is equal to the height of a package of the commodity in the carrier, it will be readily seen that such a package may be retained in position by the supports 10 and the fingers 7 of the overlying arms so long as the resilient arms 9 are maintained in their parallel relation with the inner sides of the supporting flanges 4. This position of the resilient arms is assured by the presence of a package in the carrier.

It will be understood that when the carrier or a number of such carriers is in position in a dispensing machine, the lower part thereof where the display package is supported may be positioned behind a covered window so that only this lower part of the carrier will be seen by the public. As the packages are removed from the carrier, the next one to be taken out moves into the position occupied by the previous package and continues to maintain the resilient arms in their forwardly sprung position but as soon as the last package is removed from the carrier, the spring arms 9 will be released and due to their inherent flexibility will spring back at their lower ends and retract the supports 10, thus allowing the display package to drop from position. A prospective customer looking into the machine through the window adjacent the display package will then see that the display package is missing and will know from this that the carrier is empty.

As previously explained, the package carrier itself and the manner in which the packages are removed therefrom, forms no part of the present invention. For this reason, no means has been shown associated with the carrier by which the packages are removed therefrom, it being understood that the packages may be removed from the bottom of the carrier or from the back thereof adjacent the bottom by any of the well known commonly employed means associated with dispensing machines for packages of cigarettes or other similar packaged material.

What is claimed is:

1. In a carrier for dispensing vertically stacked articles, means for supporting a display article upon the face of the carrier, comprising a stationary arm secured to and projecting from the face of the carrier and engageable with the article, a shiftable support below the arm upon which the article is carried outside the carrier, and means in the carrier connected with said shiftable support and normally tending to retract the latter into the carrier from beneath the supported article, said last means being maintained against movement to retract the support by an article removably held in the carrier.

2. A dispensing carrier for a plurality of stacked articles, comprising a vertical carrier unit in which the articles are supported one above the other, said unit having a front wall, an arm fixed to said front wall and extending forwardly therefrom for engagement over the top of a display article, a resilient arm secured at one end above the lower end of and within the unit and having its other end disposed in and adjacent the lower part of the unit and free to move therein relative to said front wall, and a supporting member for the display article which is secured to the lower end of said resilient arm and extensible through said front wall into a position in spaced relation with the fixed arm for maintaining an article between the arm and supporting member, said resilient arm being maintained under tension against the inner side of said front wall by an article in the unit and acting to retract said supporting member from beneath the display article when the article in the unit is removed.

3. In a dispenser carrier of the character described, comprising an elongated structure designed to support a plurality of articles in vertically stacked relation and having a front wall, an arm secured to and extending forwardly from said front wall at a point above the lower end of the carrier, said arm terminating in a downturned finger, a spring arm within the carrier secured at one end to the inner side of said front wall and extending downwardly to a point adjacent the lower end of the carrier, said wall adjacent the lower end of the carrier having a slot therethrough, an article supporting member secured to the lower end of said spring arm and extensible through said slot when the spring arm is flexed to a position where it extends throughout its length along the inner side of the front wall, said supporting member when extended through the slot coacting with the first arm to support a display article, and said spring arm having an inherent resiliency normally tending to move its lower end away from said front wall to retract the article supporting member through the slot and into the carrier.

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