

March 14, 1967

R. G. CHESLEY

3,308,961

PACKAGE DISPLAY-DISPENSER

Filed March 3, 1965

2 Sheets-Sheet 1

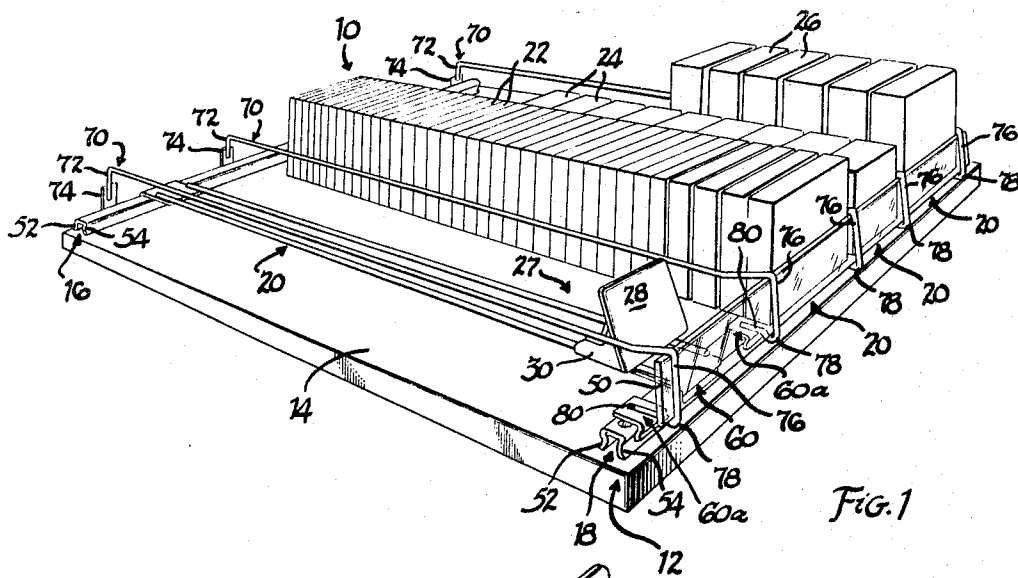


FIG. 1

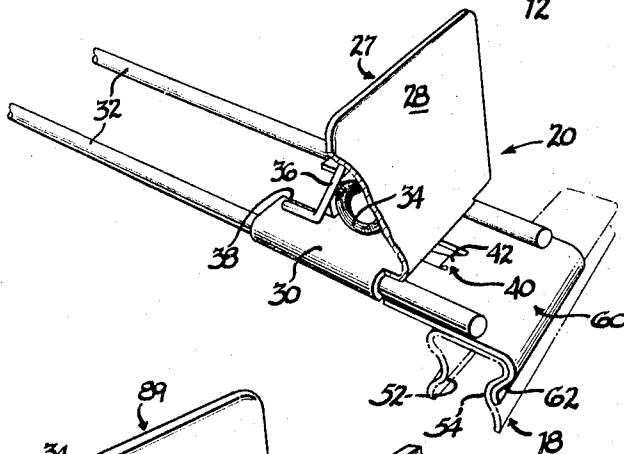


FIG. 2

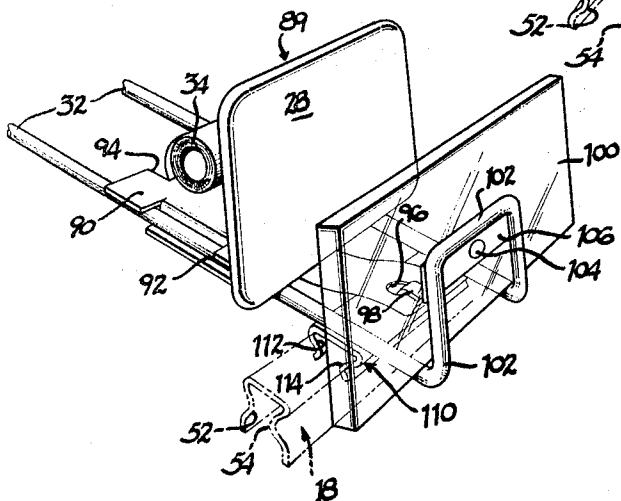


FIG. 4

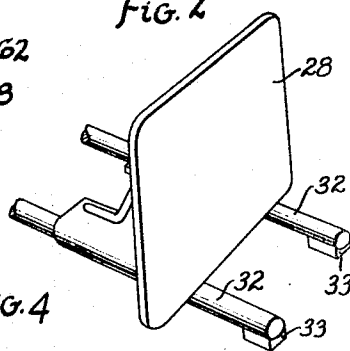


FIG. 10

Inventor.

ROBERT G. CHESLEY

BY

Wilson, Settle & McKinnon
ATTORNEYS

March 14, 1967

R. G. CHESLEY

3,308,961

PACKAGE DISPLAY-DISPENSER

Filed March 3, 1965

2 Sheets-Sheet 2

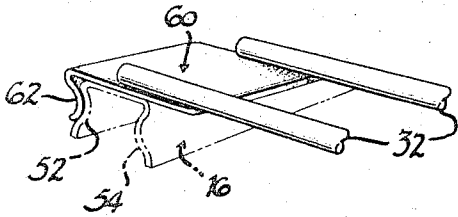


FIG. 3

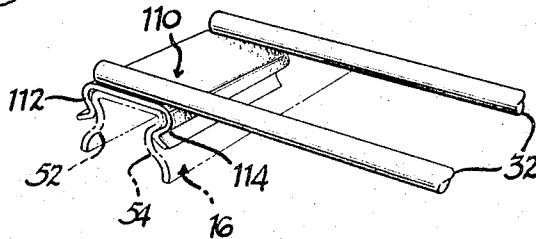


FIG. 5

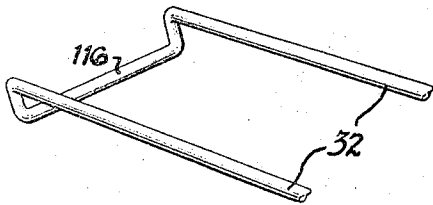


FIG. 6

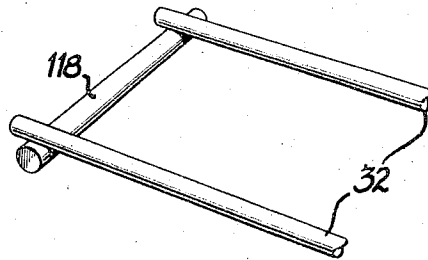


FIG. 7

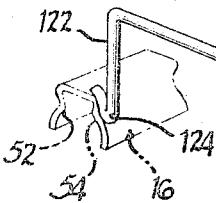


FIG. 8

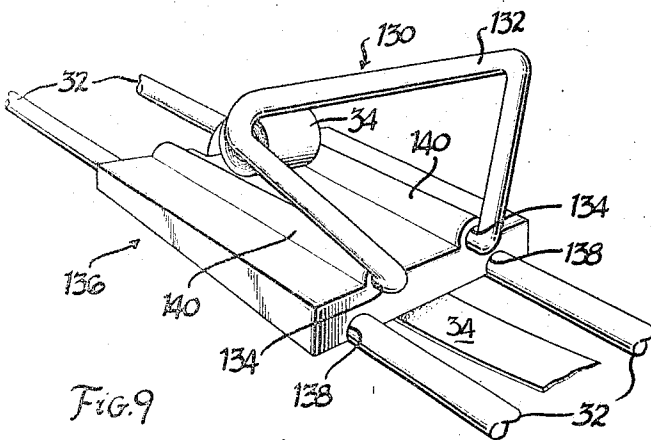
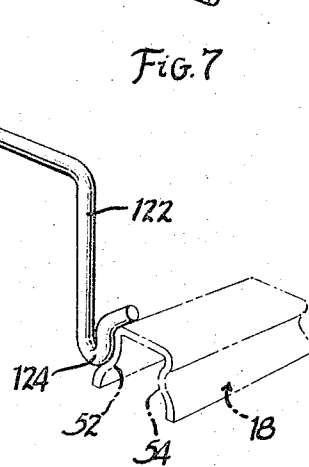


FIG. 9

Inventor.
ROBERT G. CHESLEY
BY
Wilson, Settle & McKinnon
ATTORNEYS

1

3,308,961

PACKAGE DISPLAY-DISPENSER

Robert G. Chesley, Farmington, Mich., assignor to Chesley Industries, Inc., Farmington, Mich., a corporation of Michigan

Filed Mar. 3, 1965, Ser. No. 436,778
11 Claims. (Cl. 211-49)

The present invention relates to a display-dispensing device for packaged merchandise and more particularly to such a device which is novelly held in releasably fastened relation with a rack, counter or the like and in which the individual packages of merchandise are serially stacked between a stationary front abutment and a displaceable rear pressure abutment which automatically advances the stack of packages toward the front as packages are dispensed from the device.

Modern retailing, particularly in supermarkets, discount stores and five-and-ten cent stores, have created a demand for efficient mechanism of the self-serve type in which packaged merchandise is attractably stored on display and from which the packages may be readily dispensed or withdrawn by the consumer. From the retailer's point of view, such mechanisms should be readily arrangeable upon a rack or the like, and easily stocked in a manner which will encourage the customer to purchase the merchandise and will function to retain the package of merchandise in a neat, attractive array even after numerous packages have been withdrawn by the consumer.

In modern retailing, it is common commercial practice to use a merchandise display rack or the like in which is situated a plurality of separate display-dispensing devices, for example, of the type disclosed in my United States Patent 3,161,295. Each display-dispensing device is constructed to carry a stack of merchandise packages. The separate stacks of merchandise within the individual display-dispensing devices usually contain various though similar products and are of somewhat different size and shape. The separate display-dispensing devices are usually arranged in side-by-side relation along one or more shelves or racks. From time to time, the character of the product or products and the size and the shape of the packages stored in each display-dispensing device will vary as old merchandise is sold and new merchandise acquired and placed on display. Consequently, the devices must be relocated so that the spacing between the side-by-side display-dispensing devices within the merchandise rack will suit the size of the new merchandise to present an attractive array to the consumer.

The prior art devices of this type have presented significant problems specifically with respect to the varying of spacing between the display-dispensing devices while maintaining a neat array of displayed merchandise. The attachment of such prior art display-dispensing devices to the merchandising rack has also posed problems. Heretofore, the display-dispensing devices have either been (1) rigidly fastened to the rack, making installation and removal time consuming and costly, or (2) have merely been loosely placed on a shelf or shelves of the rack resulting in the several side-by-side display-dispensing devices becoming irregularly positioned with respect to each other in a helter-skelter fashion, thus, significantly detracting from the merchandise display.

Accordingly, it is an object of the present invention to provide a novel display-dispensing device for receiving packages of merchandise in stacked alignment, which has a novel system for releasably fastening the device to a merchandise rack.

Another object of the present invention is to provide a novel display-dispensing device which may be releasably fastened to a stationary merchandise rack and the like, which resists relative vertical removal therebetween yet

2

which readily accommodates aligned transverse displacement of the device along the rack.

A further object of this invention is the provision of a plurality of novel display-dispensing devices which may be conveniently releasably fastened to a rack in aligned side-by-side relation in such a way that the spacing between adjoining devices may be readily varied to accommodate packaged merchandise of varying sizes and shapes while maintaining alignment between the devices so that at all times the merchandise may be retained in neat array.

These and other objects and features of this invention will become more fully apparent from the following description and appended claims in conjunction with accompanying drawings, wherein:

FIGURE 1 is a perspective view of a merchandise display rack equipped both with a plurality of one type of presently preferred display-dispensing devices of this invention and with a plurality of a presently preferred divider placed between each device;

FIGURE 2 is a fragmentary enlarged perspective view of one of the display-dispensing devices of FIGURE 1;

FIGURE 3 is a fragmentary enlarged perspective view illustrating the novel pressure snap-on attachment provided between the rack and the display-dispensing device embodiment of FIGURE 1;

FIGURE 4 is a fragmentary enlarged perspective view of a second presently preferred display-dispensing device of this invention;

FIGURE 5 is a fragmentary enlarged perspective view illustrating the pressure snap-on attachment provided between the rack of FIGURE 1 and the display-dispensing device of FIGURE 4;

FIGURES 6 and 7 illustrate in fragmentary, enlarged perspective view two additional snap-on attachment means which may be carried at the ends of the bottom of a display-dispensing device of the present invention and may be attached to the rack of FIGURE 1;

FIGURE 8 is an enlarged fragmentary perspective view of a second snap-on divider embodiment of the present invention;

FIGURE 9 is an enlarged fragmentary perspective view of a displaceable pressure abutment support slidably mounted on the bottom of the display-dispensing device and displaceably biased toward the front; and

FIGURE 10 is a fragmentary enlarged perspective view of the forward portion of a display-dispensing device illustrating the use of magnets for attachment thereto to a display rack.

Reference is now made to the drawings wherein like numerals are used to designate like parts throughout.

FIGURE 1 depicts an overall display of packaged merchandise, identified generally by the numeral 10, which comprises a rack 12, in this case constituting part of a frozen food refrigerating display. The rack 12 comprises a generally horizontally extending flat shelf 14, although any desired configured and oriented rack, counter or the like may be used. Furthermore, the rack 12 is equipped with a pair of generally horizontally extending runners, including a rear runner 16 and a front runner 18, both of which are stationarily attached to the rack shelf 14, as, for example, by screws, bolts, or like means so that both runners extend generally transverse to and at an elevation lower than the bottom of the several display-dispensing devices, generally designated numeral 20.

The plurality of display-dispensing devices 20 are arranged in side-by-side parallel relation so as to extend in this instance in general horizontally in attractive aligned position with respect to each other. Each display-dispensing device 20 is constructed to receive a stack of packages of merchandise, identified by numerals 22, 24 and 26 in FIGURE 1, which in this case are frozen

perishable packages of food. As can be appreciated by inspection of FIGURE 1, the size and shape of the respective stacks of packages of food 22, 24 and 26 will vary depending upon the quantity of the contents, the company manufacturing the food and the like.

With reference to both FIGURES 1 and 2, each display-dispensing device 20 of that embodiment comprises a pressure abutment assembly 27 including a plate 28 which has a base or support 30 slidably receiving the bottom wires or rods 32 of the display-dispensing device 20. The abutment plate 28 is displaceably biased toward the front of the device by a flat coiled spring, identified generally as numeral 34. This flat metal spring 34 rests upon the upper surface of the support 30 between a pair of guide rods 36 and extends through a recess 38 in the support 30 beneath the support 30 to a forward attachment 40 at the front of the display-dispensing device 20. The end of the coil metal band 34 is provided with an aperture which fits over a tab 42 at the connection 40.

Thus, when a display-dispensing device 20 is ready to be loaded with a stack of packages of merchandise the pressure abutment plate 28 is forceably displaced from the front toward the rear of the device after which the packages are inserted in upright aligned relation as depicted in FIGURE 1. The force of the coiled band of metal 34 as urged against the support 30 biases the pressure abutment plate 28 toward the front of the device so that as packages are dispensed to consumer from the device the remaining packages are advanced toward the front automatically due to the pressure imparted thereagainst by the pressure abutment plate 28.

The embodiment of the FIGURES 1 and 2 also includes a transparent front stationary abutment plate 50, preferably of plastic or the like, which plate is common to all four of the display-dispensing devices 20 illustrated in FIGURE 1. However, it is to be appreciated that separate front stationary abutment plates or the like may be used in conjunction with each display-dispensing device 20, as illustrated and subsequently described in conjunction with the embodiment of FIGURE 4. Thus, in the embodiment of FIGURES 1 and 2, the front stationary transparent abutment plate 50 provides a surface against which the forward package in each device 20 is biased by action of the abutment pressure plate 28 in the manner previously described.

Naturally, the packages of merchandise stacked within each display-dispensing device 20 rests upon the bottom wires 32 and are displaced along the bottom wires 32 as the pressure abutment plate 28 urges the remaining packages forward as packages from the stack are dispensed.

As can be seen from inspection of FIGURES 1 and 2, the runners 16 and 18, which are stationarily attached to shelf 14 of the rack 12, are generally in the shape of inverted U. The vertical walls thereof are provided with inwardly directed curved portions 52 and 54 which cooperate with each display-dispensing device 20 to provide a pressure-snap-on attachment therebetween.

At the front and rear of the bottom wire 32 on each display-dispensing device 20 is provided a snap-on plate, generally designated 60, which has curved end 62 contoured to match the curved portions 52 and 54 of the runners 16 and 18. The plate 60 is integrally connected to the bottom rods 32 as, for example, by welding. Thus, a display-dispensing device 20 may be easily installed upon the runners 16 and 18 of the rack 12 merely by vertically pressing downwardly upon each end plate 60 so as to force the curved end 62 thereof into contiguous surface-to-surface pressure engagement with either the curved portion 52 or 54 of the runners 16 and 18. Similarly, by exertion of an appreciable upward vertical force, the end plates 60 may be disengaged from the runners 16 and 18 for removal or replacement of the device 20.

Hence, the display-dispensing device 20 is secured to the runners 16 and 18 when properly installed so as to obviate inadvertent relative vertical disengagement there-

with. Furthermore, when the display-dispensing device 20 is in the properly installed position, as depicted in FIGURES 1 and 2, it may be displaced easily in a generally horizontal direction parallel to the lengths of the runners 16 and 18 merely by exertion of a slight force in that direction. Thus, the spacing between each display-dispensing device 20 may be rearranged to suit differently sized packages of merchandise without misaligning any of the several devices 20.

Preferably, the several stacks of packaged merchandise assembled in the plurality of display-dispensing devices 20 of FIGURE 1 are separated from each other by means of dividers, generally designated 70. Each divider 70 is constructed with a downwardly depending end 72 to which an end plate 74 is welded or otherwise integrally secured thereto. The end plate 74 is configured at its distal end to match the curved portion 52 of the runner 16 so that a snap-on releasable attachment between the end plate 74 of each divider 70 and the runner 16 is easily accomplished. At the front end, each divider 70 is provided with a hair pin or 180° bend, designated generally 76, which bend 76 is configured to fit around the exterior front surface of the common front abutment transparent plate 50 and to engage the bottom thereof in a circular portion 78 of the divider 70. The front end of the divider 70 includes a generally horizontally extending end 80 to which an end plate 60a, corresponding in structure and function to the previously described end plate 60, is integrally attached as, for example, by welding. Of course, the end plate 60a accommodates pressure snap-on releasable assemblage or attachment with the runner 18 in the same manner as does plate 60. Thus, when installed, each divider 70 is restrained against inadvertent vertical displacement and disengagement with the runners 16 and 18 while at the same time readily accommodates horizontal displacement along the lengths of the runner 16 and 18 in aligned relation to vary the spacing between the dividers which may be occupied by a stack of package merchandise.

Reference is now made to the second presently preferred display-dispensing device embodiment, generally designated 89 as depicted in FIGURES 4 and 5. This embodiment is substantially similar to the previously described embodiment and encompasses the same basic inventive concepts. Here, the pressure abutment plate 28 is provided with a base 90 equipped with an outwardly directed recess portion 92 at each side which slidably engages the bottom wires or rods 32. No guide rods are provided for the coiled metal band 34 which rests upon the upper surface of the support 90 and passes through the rear recess 94 across the lower surface of the support 90 with the end of the coiled metal band at aperture 96 engaging a hook-shaped tab 98. The pressure abutment plate 28, nevertheless, still biases the stack of packages of merchandise toward the front so that as packages are dispensed therefrom the remaining packages slide forward across the bottom rods 32 toward the front. The front package engages an independent transparent front abutment plate 100 which is secured to the U-shaped, generally vertically disposed end 102 of the rods 32 as, for example, by riveting as depicted by rivet 104 secured in a metal plate 106.

The embodiment of FIGURES 4 and 5 is provided with a snap-on pressure attachment for inter-engaging the display-dispensing device 89 and the runners 16 and 18, previously described in conjunction with the embodiment of FIGURES 1 through 3. Here, at the front and rear ends of the bottom rods 32, a U-shaped snap-on member 110 which is welded or otherwise integrally secured which has generally downwardly directed curved edges 112 and 114 which are so shaped and sized so as to accommodate a forced fit installation against the curved portion 52 and 54 of the runners 16 and 18 when downwardly vertically displaced sufficient to spread and displace the edges 112 and 114 into the position depicted in FIGURES 4 and 5.

When the runners 16 and 18 are contoured as depicted in the foregoing drawings, the snap-on end 116 of FIGURE 6 or the transverse wire 118 of FIGURE 7 may be used at the bottom wires 32 to effect a similar snap-on attachment with the runners 16 and 18 whereby adventitious vertical disengagement therewith is prevented while the display-dispensing devices may be easily laterally re-positioned to vary the spacing therebetween. Furthermore, as shown in FIGURE 10 an alternative to the snap-on attachments provided at the front and rear ends at the bottom of the display-dispensing devices of this invention one or more magnets 33 may be secured at the ends of the display-dispensing devices to effect a similar releasable attachment between the devices and the display rack.

Reference is now made to FIGURE 8 which depicts a second divider embodiment. The divider 120 is provided with vertically depending portions 122 having reverse bends 124 contoured to match the curved portion 52 and 54 of the runners 16 and 18 so that the divider 120 may be snapped into position but yet may be readily laterally displaced to vary the spacing between the rows or stacks of packages of merchandise.

Reference is now made to FIGURE 9 which depicts a novel pressure abutment 130. The abutment 130 may be used as an alternative to the pressure abutments 27 or 89 of the two previously described display-dispensing device embodiments. The pressure abutment 130 constitutes a generally U-shaped wire 132 having terminal ends slidably secured in a pair of recesses 134 formed in a plastic base or support, generally designated 136. The plastic support 136 also has a pair of open recesses 138 each of which slidably receives a bottom rod 32. The pressure abutment 130 is similarly biased by the coiled band of metal 34 toward the front of the display-dispensing device. At the top of the plastic support 136 are provided a pair of parallel horizontally extending upwardly projecting semicylindrical ridges 140 which may be utilized to engage a pressure abutment member having recesses sized and shaped to fit over the ridges 140 in preference to the abutment wire 132.

The invention may be embodied in other specific forms without departing from the spirit or essential characteristics thereof. The present embodiments are therefore to be considered in all respects as illustrative and not restrictive, the scope of the invention being indicated by the appended claims rather than by the foregoing description, and all changes which come within the meaning and range of equivalency of the claims are therefore intended to be embraced therein.

What is claimed and desired to be secured by United States Letters Patent is:

1. Merchandise display-dispensing device within which individual packages of merchandise are adapted to be stacked, the device being receiveable within a merchandise display rack, said display-dispensing device comprising a bottom, a front stationary abutment carried at the forward end of the bottom against which a forward package is biased, a pressure abutment slideably secured to the bottom, biasing means urging said slideable pressure abutment toward the front against a rear package so that as packages are dispensed from the device the remaining packages are advanced toward the front by the biased pressure abutment, said bottom serving as a rest for packages and a slide along which packages and the pressure abutment are displaced as packages are dispensed, a pair of spaced runners stationarily securable to a merchandise display rack, said runners extending generally transverse to and beneath said bottom of the device along the ends thereof, and snap-on means integral with the respective opposite ends of the bottom to releasably fasten the device to the runners.

2. A merchandise display-dispensing device within which individual packages of merchandise are adapted to be stacked, the device being receiveable within a merchandise display rack, said display-dispensing device compris-

ing a bottom, a pressure abutment slidably secured to the bottom, biasing means urging the slideable pressure abutment toward the front against a rear package so that as packages are dispensed from the device the remaining packages are advanced toward the front automatically by the biased pressure abutment, a front stationary abutment carried at the forward end of the bottom against which a forward package is biased, said bottom serving as a rest for packages and a slide along which packages and the pressure abutment are displaced as packages are dispensed, at least two spaced runners stationarily securable to a merchandise display rack, said runners extending generally transverse to and beneath the bottom of said device, and snap-on releasable means carried at least at the front and rear of the device for securing the device to the runners against relative vertical displacement while accommodating relative generally horizontal displacement of the device along the length of the runners.

3. A device as defined in claim 2 wherein the portion of said runners against which the snap-on releasable means are secured are contoured to correspond to the shape of the snap-on releasable means.

4. In a merchandise display-dispensing device for mounting upon a counter and the like and within which individual packages are adapted to be stacked, said display-dispensing device comprising a bottom, a front stationary abutment carried at the forward end of the bottom against which a forward package in a stack is biasable, a pressure abutment slidably secured to the bottom, biasing means urging the pressure abutment toward the front of the device against a rear package in the stack so that as packages are dispensed from the device the remaining packages are advanced toward the front by the biased pressure abutment, said bottom serving as a rest for packages and a slide along which packages and the pressure abutment are displaced as packages are removed from the device and means attached to the bottom at the opposite ends thereof for biasing the device into releasably fastened relation with a counter and the like.

5. A device as defined in claim 4 wherein said front stationary abutment against which the forward package is biasable is a transparent plate.

6. A device as defined in claim 4 wherein said means for biasing the device into releasably fastened relation with the counter and the like are a pair of pressure latches respectively attached at the opposite ends of the bottom.

7. A device as defined in claim 4 wherein said means for biasing the device into releasably fastened relation with the counter and the like are a plurality of magnets.

8. A device as defined in claim 4 wherein said bottom comprises at least two elongated spaced generally parallel wires and wherein said displaceable pressure abutment has a plastic base with recesses slideably receiving said wires.

9. In a merchandise display rack, a plurality of side-by-side generally parallel horizontally aligned display-dispensing devices within which individual packages of merchandise are adapted to be stacked, each display-dispensing device comprising a bottom, a pressure abutment slidably secured to the bottom, biasing means urging the pressure abutment toward the front of the rack against a rear package so that as packages are dispensed from the device the remaining packages are advanced toward the front automatically by the biased pressure abutment, a front stationary abutment carried at the forward end of the bottom against which a forward package is biased, said bottom serving as a rest for packages and a slide along which packages and the pressure abutment are displaced as packages are dispensed, said rack having at least a pair of spaced runners stationarily securable to a rack, said runners extending generally transverse to and beneath the bottom of said device, and each device having snap-on releasable means carried at least at the front and rear of the device and securing the device to the spaced runners against inadvertent relative vertical displacement while accommo-

7

dating relative aligned displacement of the device generally horizontally along the length of the runners so that stacks of packages of merchandise may be aligned in any desired side-by-side spaced relation.

10. A device as defined in claim 9 wherein said plurality of display-dispensing devices has at least one common transparent plate along the front of said devices.

11. A device as defined in claim 9 wherein each stack of packages of merchandise is adapted to be separated from adjacent stacks of packages of merchandise by dividers each of which has snap-on releasable means carried at the front and the rear thereof securing the divider to the runners against inadvertent relative vertical displacement while accommodating relative generally horizontal displacement of the device along the length of the runners.

8

References Cited by the Examiner

UNITED STATES PATENTS

1,800,075	4/1931	Imrie	312—140.3
2,933,195	4/1960	Radek	312—140.3 X
2,934,212	4/1960	Jacobson	211—49
2,954,878	10/1960	Metzler et al.	211—86 X
3,161,295	12/1964	Chesley	211—49

FOREIGN PATENTS

10 76,622 10/1961 France.

CLAUDE A. LE ROY, *Primary Examiner.*

CHANCELLOR E. HARRIS, *Examiner.*

15 W. D. LOULAN, *Assistant Examiner.*