Feb. 28, 1967 E. KUGLER 3,306,492

FLEXIBLE PLASTIC BAG DISPENSER

Filed Aug. 22, 1966 2 Sheets-Sheet 1

FIG. 1

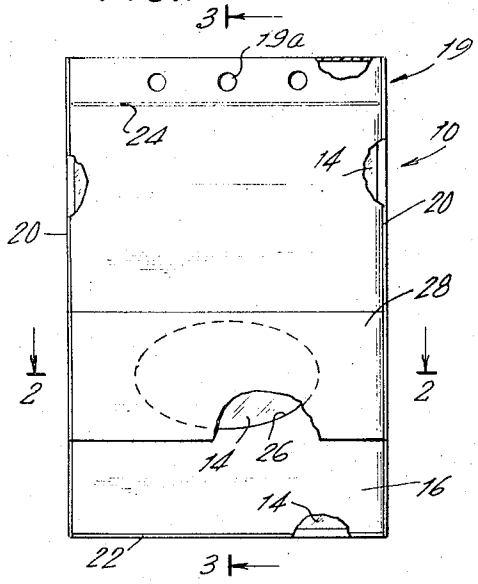
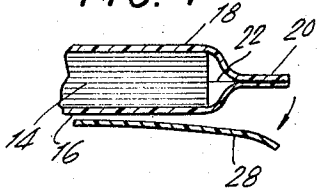


FIG. 4



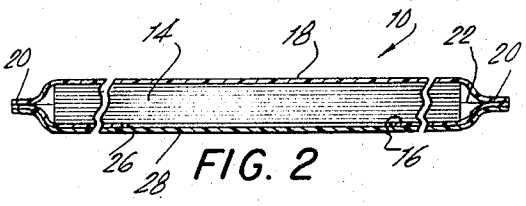


FIG. 2

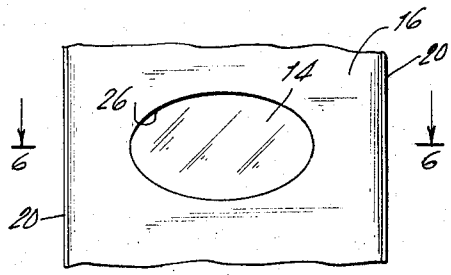


FIG. 5

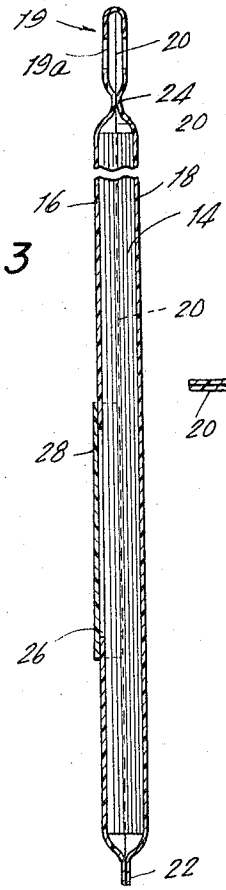


FIG. 3

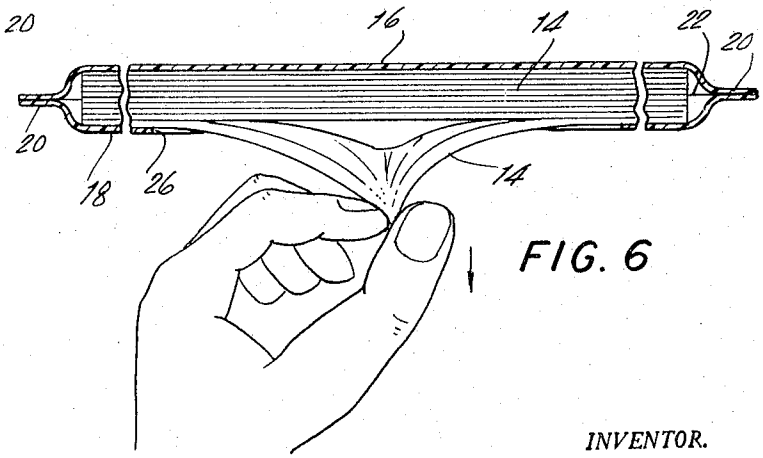


FIG. 6

INVENTOR.
EMANUEL KUGLER
BY
Amster & Rothstein
ATTORNEYS

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FLEXIBLE PLASTIC BAG DISPENSER

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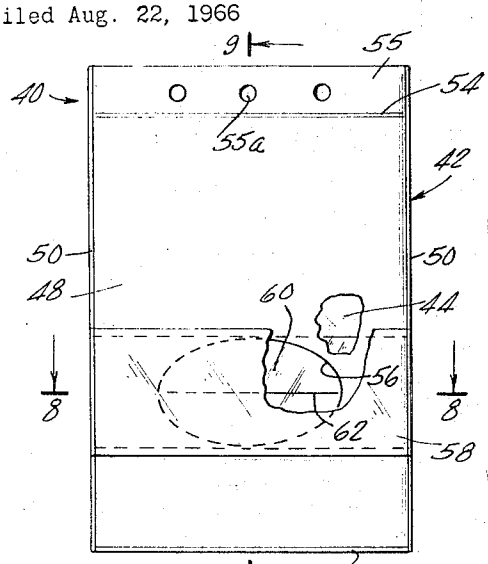

FIG. 7

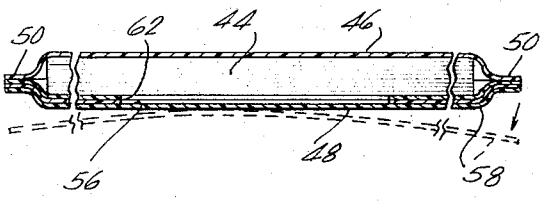

FIG. 8

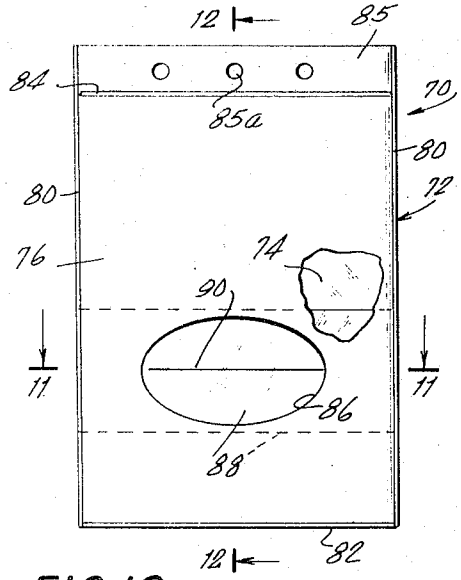

FIG. 10

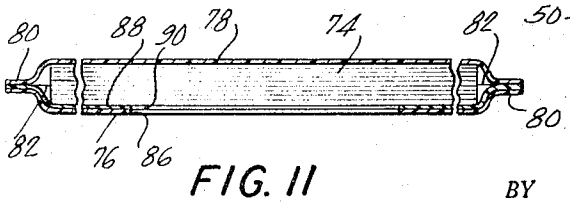

FIG. 11

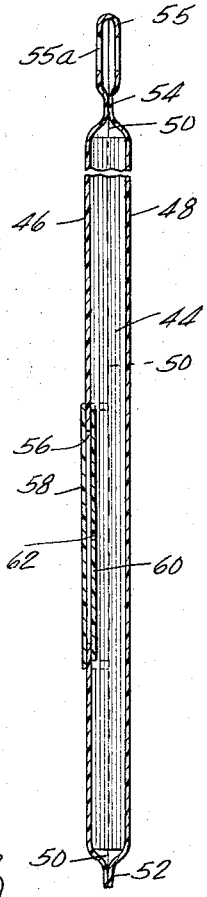

FIG. 9

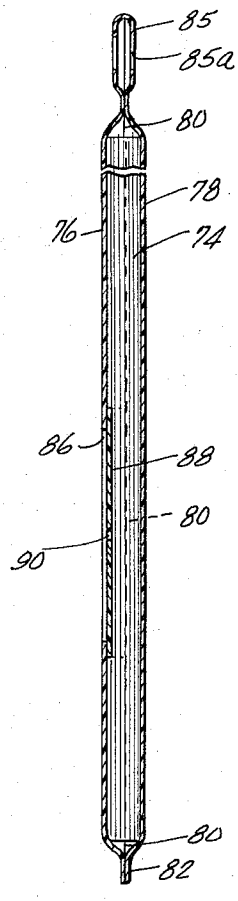

FIG. 12

INVENTOR.
EMANUEL KUGLER
BY
Amster & Rothstein
ATTORNEYS

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FLEXIBLE PLASTIC BAG DISPENSER

Emanuel Kugler, 124 Richmond Place,
Lawrence, N.Y. 11418

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6 Claims. (Cl. 221—63)

This invention relates generally to flexible plastic bags and specifically to a plastic bag in which are contained other and smaller plastic bags and which functions as a dispensing package for such other bags. In accordance with the invention, means are provided to allow automatic dispensing of the smaller bags such that a consumer may move those bags one at a time from the dispensing bag using only one hand to perform that operation. Means are also provided in the dispensing bag in accordance with the present invention to protect the inner bags from dirt and damage.

In many instances, it is convenient to use the now commercially available polyethylene film bags for all types of industrial and home packaging. For example, it has become popular to package small bags for home kitchen use with the bags attached to each other in an end-to-end relationship with a perforated line between adjacent bags and with the bags rolled up onto a mandrel. The roll of bags, on its mandrel, is packaged in a box for the consumer. The bags are pulled, one at a time, from the roll as they are needed by the housewife. Although this type of structure has achieved significant success, it has some notable disadvantages including among others the requirement that the housewife use two hands in order to remove one bag from the group of others. Other disadvantages concern the large space required to store the structure which, for the most part, is empty space. A still further disadvantage is the high cost of this type of package.

Accordingly, applicant has designed an improved dispensing arrangement for a stack of bags which finds particular use in the home consumer field; analogous uses in industry are obvious to those having a knowledge of the bag industry. Generally, it is an object of the present invention to provide a package of bags from which the consumer may remove individual bags, one at a time, in a one-handed operation, in which the individual bags are protected from dirt and from abrasion, in which there is a substantial cost savings over the normal rolled up string of bags and in which there is a savings of storage space over the rolled-up string of bags structure.

In his preferred embodiments of the present invention, applicant has provided a dispensing bag which contains other bags which may be removed from the dispensing bag one at a time. The dispensing bag is of a general overall flat configuration such that it may be pinned on to the inside of a cabinet door or upon any vertical surface, or, if desired, merely laid down on a flat surface. The dispensing bag comprises a front and rear wall which are sealed together to form an enclosure in which is positioned a plurality of smaller consumer bags (bags to be used by the consumer) each of which is superimposed upon the other in coextensive relationship. A hole is formed in the front wall of the dispensing bag through which the consumer bags are pulled and means are provided larger than the hole to protect the contained consumer bags from dirt and from mechanical harm. In one embodiment, the protection means comprises a strip of flexible

plastic material extending across the front wall of the bag on the outside surface thereof covering the access means and secured to the opposite side edges of the dispensing bag. The protective strip may be easily pulled away from the dispensing bag to uncover the access means and thereby make the consumer bags available for use. In another form of the invention, the protection means comprises an internal plastic, flexible sheet positioned above the stack of consumer bags but below the front wall and also coextensive with the access opening in the front wall. At least one slit is provided within the internal protective sheet such that a consumer may reach with his fingers into the slit grasping the uppermost bag and pull same from the dispensing bag. It is, of course, possible, for greater protection, to provide both the internal and external protective strips in one assembly.

The above brief description, as well as further objects, features and advantages of the present invention, will be best appreciated by reference to the following detailed description of presently preferred embodiments of the invention when taken in conjunction with the accompanying drawings, wherein:

FIGURES 1, 2 and 3 relate to a first embodiment of the invention and FIGURE 1 is a front elevational view of a dispensing bag with an external protective strip;

FIGURE 2 is a sectional view of the bag shown in FIGURE 1 taken along the line **2—2** of FIGURE 1 and looking in the direction of the arrows;

FIGURE 3 is a sectional view of the same bag taken along line **3—3** of FIGURE 1 and looking in the direction of the arrows;

FIGURE 4 is a fragmented, sectional and enlarged view of the same dispensing bag illustrating the removal of the external protective strip from the package;

FIGURE 5 is a partial elevational view of the bag with the external protective strip removed therefrom; and

FIGURE 6 is a sectional view taken along line **6—6** of FIGURE 5 and illustrating the removal by a consumer of one of the consumer bags contained within the dispensing bag;

FIGURES 7, 8 and 9 relate to a second embodiment of the present invention wherein FIGURE 7 is a front elevational view generally similar to that of FIGURE 1, but showing a bag which includes both an external and internal protective strip;

FIGURE 8 is a sectional view taken along the line **8—8** of FIGURE 7 looking in the direction of the arrows and illustrating, in phantom, the removal of the external protective strip; and

FIGURE 9 is a sectional view taken along line **9—9** of FIGURE 7 and looking in the direction of the arrows;

FIGURES 10, 11 and 12 are views illustrative of a third embodiment of the present invention wherein FIGURE 10 is a front elevational view similar to that of FIGURE 1 showing a dispensing bag which includes an internal protective strip;

FIGURE 11 is a sectional view taken along line **11—11** of FIGURE 10 and looking in the direction of the arrows; and

FIGURE 12 is a sectional view taken along line **12—12** of FIGURE 10 and looking in the direction of the arrows.

Referring now specifically to the drawings, there is shown in FIGURE 1 a dispensing package generally designated by the numeral **10** which comprises an automatic

plastic dispensing bag **12** in which is contained a plurality of smaller plastic bags **14** (referred to herein as consumer bags) of the type which will be used, one at a time, by the consumer. The dispensing bag contains a front wall **16**, a rear wall **18** and a header assembly **19** formed of the same material as the front and rear walls. The bag is sealed to enclose the individual bags **14** at the side edges **20**, the bottom edge **22** and the top edge **24**.

Access means are provided through the front wall **16** by means of which the individual bags **14** may be removed, one at a time, from the package **10**. In the dispensing bag **12**, the access means comprises an oval-shaped opening or cutout **26** formed in a generally central location in the front wall **16** and of a size adapted to allow free removal of the individual bags **14** contained therein. Reference to FIGURE 6 will show that removal of the individual bags **14** is accomplished by pinching the outer surface of one of those bags between two fingers of the hand and pulling the bag outwardly. Thus, if the dispensing bag **12** is hung on a vertical surface, such as by fasteners through the holes **19***a* formed in the header, the individual bags **14** may be easily plucked from the dispensing package by pulling same outwardly in a horizontal direction. Obviously, the package **10** may also be used on a horizontal work surface.

The individual bags **14** contained within the dispensing package **10** may be of any desired type and one type that has proved useful in such a dispensing package is the type of plastic bag normally referred to as a sandwich bag.

In accordance with the present invention, means are provided across the front of the dispensing bag **12**, at the location of the access opening or cutout **26**, to keep the individual consumer bags **14** in clean and undamaged condition. In the dispensing package **10**, such protection is afforded by means of a strip or section of flexible plastic material which forms a security strip **28** of generally rectangular shape and which overlays the front wall **16** of the bag in the area of the access opening **26**. Specifically, the width of the security strip **28** is somewhat greater than the extent of the access opening **26** thereby to form a solid barrier preventing the entry of dust into the interior of the dispensing bag **12**. Furthermore, the security strip **28** provides a substantial physical barrier against mechanical abrasion of the individual consumer bags **14**. In addition to these functions, the security strip effectively precludes the removal of the individual bags **14** while the dispensing package **10** is displayed in a retail store.

The security strip **28** is removed from the dispensing package **10** and specifically from its attachment to the dispensing bag **12** along the side edges **20** by simply pulling downwardly on the strip along the side edges **20**. The security strip **28** is physically attached to the rest of the dispensing bag **12** preferably by heat seals along the edges **20**. In addition or alternatively, a line of perforations may be formed in the security strip immediately adjacent its securement to the bag **12**, however, where the strip is secured to the side edges this would normally not be necessary due an inherent feature of heat seals which makes the sealed material weak in the area immediately adjacent the seal. Thus, when the security strip **28** is pulled downwardly, it will normally tear immediately adjacent the attachment to the bag **12**, i.e., at the side edges **20**.

The structure of the dispensing package **10** will be best understood by the following description of the use of the item. After purchasing the item, the housewife, at or before the time she intends to use the first individual sandwich bag **14**, tears the security strip **28** by pulling downwardly thereon. The dispensing bag **12** may either be used laying flat on a surface or may be hung from the openings **19***a* in the header **19** on any convenient vertical surface, such as the inside of a kitchen cabinet. An individual bag **14** is removed from the dispensing package **10** simply by grasping the front surface of the forward most individual bag **14** and pulling same outwardly. In addition to having the advantageous features of one-handed ease of operation, this arrangement tends to pull the walls of the individual bag **14** from each other thereby making same easier to open; this is in sharp contrast to the well-known rolled-up bags wherein the pulling of one bag from the next adjacent bag tends to draw the front and back surface of the individual bags into a tight and difficult-to-open condition.

Reference will now be made to FIGURES 7, 8 and 9 which illustrate a second embodiment of the present invention. In these figures there is shown a dispensing package generally designated by the numeral **40** which includes a dispensing bag **42** in which are contained a plurality of coextensive individual consumer bags **44** of the sandwich bag type. The dispensing bag **42** comprises a front wall **46** and a rear wall **48** which are joined at their side edges **50**, along the bottom edge **52** and along the top edge of the internal chamber **54** to form a closed container for the individual bags **44**. A header **55** is formed at the upper edge of the bag **42** in which is provided a plurality of openings **55***a* by which the entire assembly may be hung by a hook or thumb tack or the like on a vertical surface. Access to the individual bags **44** within the dispensing bag **42** is provided by an opening **56** formed in the front wall **46** in a manner completely similar to the opening **26** formed in the dispensing bag **12**. Furthermore, a security strip **58** is provided across the width of the dispensing bag **42** from one side edge **50** to the other side edge and is joined thereto by a tearable connection such that the security strip **58** may be removed from the dispensing bag **42** in the same manner as the security strip **28** described above. It will be seen that the dispensing bag **42**, as described to this point, is virtually identical with the dispensing bag **12** described above. In addition to the foregoing, however, the dispensing bag **42** is provided with a slit-access retaining band **60** against the inside surface of the front wall **46** and which extends along the width of the dispensing bag **42** from one side edge **50** to the other. The band **60** is of a vertical extent somewhat greater than the size of the access opening **56**. Thus, the slit-access retaining band serves as a shield preventing dust or abrasion from harming the individual bags **44** even after the security strip **58** is removed. The slit-access retaining band **60** has formed therein a generally horizontal slit **62** which extends in the same direction as the greater dimension of the access opening **56**. Since the slit-access retaining band **60** is formed of rather flexible material, a consumer may, after the security strip **58** is removed, reach through the access opening **56** and through the slit **62** in order to grasp one of the individual sandwich bags **54** and pull same outwardly through the flexible edges of the slit **62** and through the access opening or cutout **56**.

It will be appreciated that a consumer uses the dispensing package **40** in exactly the manner described above for the dispensing package **10** except that in addition to reaching into the access opening **26** in the bag **10**, when using the bag **40**, the user reaches through the access opening **56** and then through the slit **62** in the slit-access retaining band **60**. Because of the resilient characteristic of the material which is used to form the slit-access retaining band **60**, the access orifice **56** is normally closed by the band **60** thus preventing any dirt from soiling the materials contained within the dispensing package **42**.

Reference will now be made to FIGURES 10, 11 and 12 for a description of a still further embodiment of the present invention. There is shown in these drawings a dispensing package generally designated by the numeral **70** which includes a dispensing bag **72** in which is contained a plurality of individual items **74** to be dispensed, in this case individual consumer bags of the sandwich bag type. The dispensing bag **72** is formed with a front wall **76** and a rear wall **78** which are joined at the side

edges 80, at the bottom edge 82 and at the top edge 84 and which has a header 85 formed with appropriate openings 85a such that the bag 72 may be hung on a vertical surface. An access opening or cutout 86 is formed in the central portion of the front wall 76 to provide access means whereby the consumer may remove the sandwich bag 74, one at a time, from the internal cavity in the bag 72. In order to provide protection against dust and abrasion, both while the dispensing bag is stored prior to use and during the period of time when it is in actual dispensing use, there is provided a slit-access retaining band 88 which extends from side to side of the dispensing bag 72 and is slightly greater in vertical dimension than the size of the access opening 86. The slit-access retaining band is positioned immediately beneath the front wall 76 and is secured to the bag 72 by heat sealing along the edges 80. A slit 90 is provided in the middle of the slit-access retaining band 88 such that the consumer may spread open the slit 90 to reach into the internal cavity within the dispensing bag 72 in order to remove the individual bags 74 therefrom. It is possible to form the slit 90 with a series of perforations which are broken by the consumer when the dispensing bag 12 is put into initial use, however, normally, the slit 90 will be formed as a continuous cut in the material which forms the slit-access retaining band 88. Due to the flexible and somewhat resilient nature of the plastic sheet material used for the band 88, the slit 90 will be maintained in its closed position thus preventing the entry of dust into the interior of the bags 72 and preventing any mechanical abrasion of the contents thereof. The slit-access retaining bands 88 and 60 may be formed of two separate individual sheets of material which are mounted in their respective dispensing bags with two of their edges in abutting relationship thereby forming a structure completely analogous to those depicted in the drawings wherein the slits rather than being cut into the sheet material itself are formed by two abutting edges of parallel strips of sheet material.

The dispensing bag 72 shown in the dispensing package 70, does not provide the degree of mechanical protection which one finds in the dispensing bag 42 in the dispensing package 40 described above. However, in many instances, the protection afforded by the bag 72 will be sufficient and thus it will be possible to avoid the increased costs of the bag 42 as compared to the bag 72 (the addition of expense caused by the provision of the security strip 58).

It will be appreciated that there is provided in accordance with the present invention a dispensing bag arrangement in which a consumer may remove individual sheet items, such as small sandwich bags; one at a time, from a flat dispensing package and may do so in a one-handed operation. Furthermore, it should be appreciated by those skilled in the art that applicant's structures, as described herein, provide a relatively inexpensive overall structure for accomplishing these purposes while nevertheless producing a product of superior advantages from the point of view of ease of operation, cleanliness and space-saving characteristics.

Although three specific embodiments of the present invention have been described and illustrated herein, it will be appreciated that design changes may be made varying in some particulars from the specific structures shown without departing from the spirit and scope of the invention. Accordingly, the following claims should be construed in a manner consistent with the scope of the invention.

What I claim is:

1. A dispensing package of flexible plastic consumer bags comprising, in combination, a dispensing bag having a front wall, a rear wall joined to said front wall at top, bottom and side edges forming an internal chamber, and a header assembly having means for hanging said dispensing bag from a vertical surface, said front wall having an access opening formed therein comprising a cutout providing communication from outside of said internal chamber into said internal chamber, a plurality of flat consumer bags positioned one on top of another within said internal chamber and generally parallel to said front and rear walls with the uppermost consumer bag being positioned against the inside surface of said front wall and accessible through said access opening, a security strip overlaying said front wall at said access opening comprising a section of plastic material joined to said dispensing bag at said side edges and being removable therefrom by a tearing action for opening said access opening, said dispensing package having a slit-access retaining band formed of resilient, flexible sheet material positioned between said uppermost consumer bag and said inside surface of said front wall, lying flat thereagainst and covering said access opening, said slit access retaining band being secured to said dispensing bag at said side edges, said slit access retaining band having a generally linear slit formed therein and lying across said access opening, said slit normally being closed with its edges in abutting relationship and being openable when said edges are spread apart, said consumer bags being accessible when said slit is spread apart and being protected when said slit is closed.

2. A dispensing package of flexible plastic consumer bags comprising, in combination, a dispensing bag having a front wall, a rear wall joined to said front wall at top, bottom and side edges forming an internal chamber, and a header assembly having means for hanging said dispensing bag from a vertical surface, said front wall having an access opening formed therein comprising a cutout providing communication from outside of said internal chamber into said internal chamber, a plurality of flat consumer bags positioned one on top of another within said internal chamber and generally parallel to said front and rear walls with the uppermost consumer bag being positioned against the inside surface of said front wall and accessible through said access opening, a security strip overlaying said front wall at said access opening comprising a section of plastic material joined to said dispensing bag at said side edges and being removable therefrom by a tearing action for opening said access opening, said consumer bags being accessible when said security strip is removed from said dispensing bag.

3. A dispensing package of flexible plastic consumer bags comprising, in combination, a dispensing bag having a front wall, a rear wall joined to said front wall at top, bottom and side edges forming an internal chamber, and a header assembly having means for hanging said dispensing bag from a vertical surface, said front wall having an access opening formed therein comprising a cutout providing communication from outside of said internal chamber into said internal chamber, a plurality of flat consumer bags positioned one on top of another within said internal chamber and generally parallel to said front and rear walls with the uppermost consumer bag being positioned against the inside surface of said front wall and accessible through said access opening, said dispensing package having a slit-access retaining band formed of resilient, flexible sheet material positioned between said uppermost consumer bag and said inside surface of said front wall, lying flat thereagainst and covering said access opening, said slit access retaining band being secured to said dispensing bag at said side edges, said slit access retaining band having a generally linear slit formed therein and lying across said access opening, said slit normally being closed with its edges in abutting relationship and being openable when said edges are spread apart, said consumer bags being accessible when said slit is spread apart and being protected when said slit is closed.

4. A package in accordance with claim 1 wherein said security strip and said slit access retaining band are se-

cured to said bag by heat seals at the side edges of said bag.

5. A package in accordance with claim 2 wherein said security strip is secured to said bag by heat seals at the side edges of said bag.

6. A package in accordance with claim 3 wherein said slit access retaining band is secured to said bag by heat seals at the side edges of said bag.

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ROBERT B. REEVES, *Primary Examiner.*

S. H. TOLLBERG, *Assistant Examiner.*