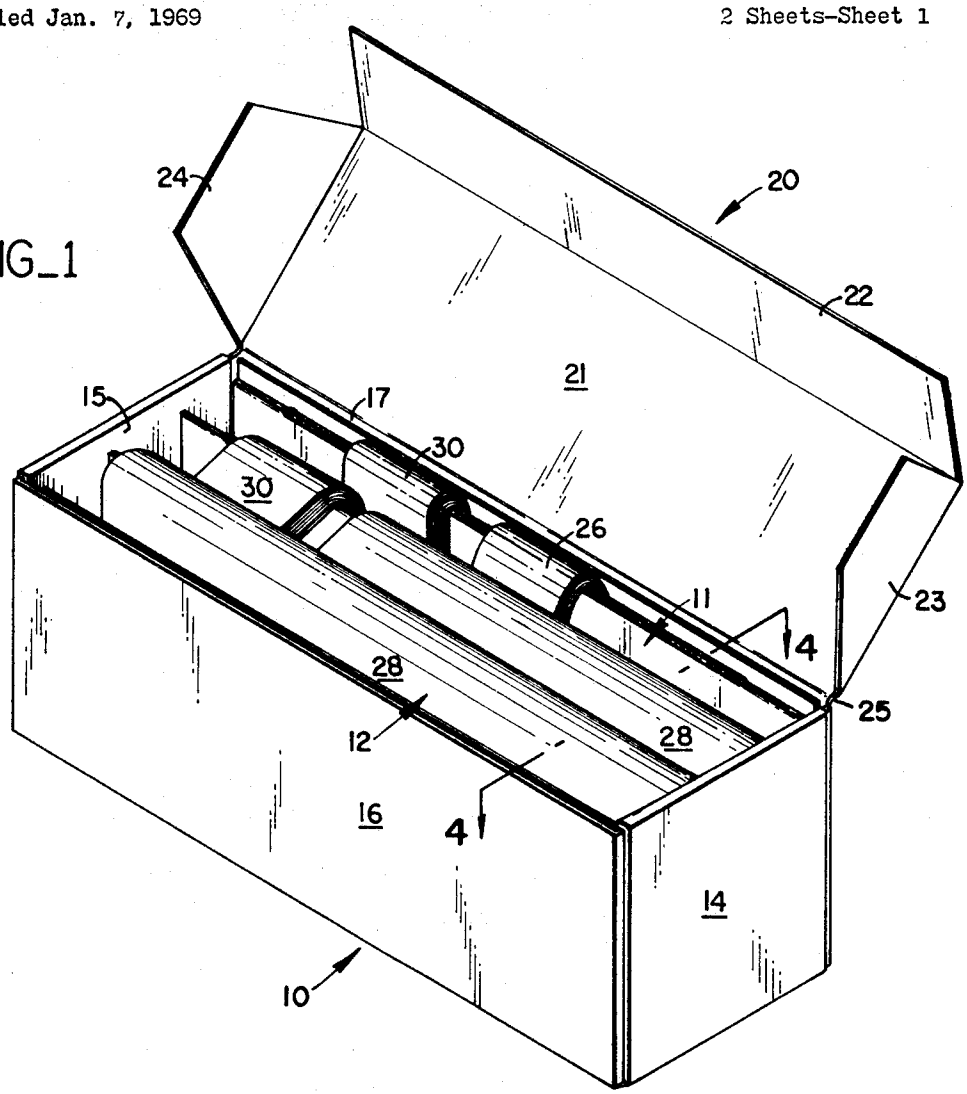
March 31, 1970 R. A. BLATZ ET AL 3,503,494

DISPENSING PACKAGE FOR APRONS

Filed Jan. 7, 1969 2 Sheets-Sheet 1

FIG_1



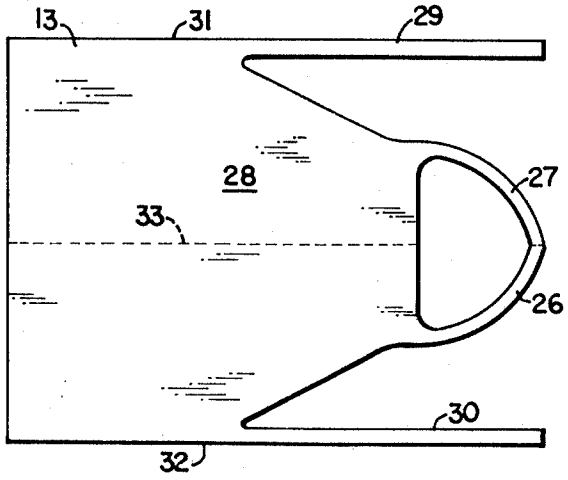


FIG_2

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DISPENSING PACKAGE FOR APRONS

Filed Jan. 7, 1969 2 Sheets-Sheet 2

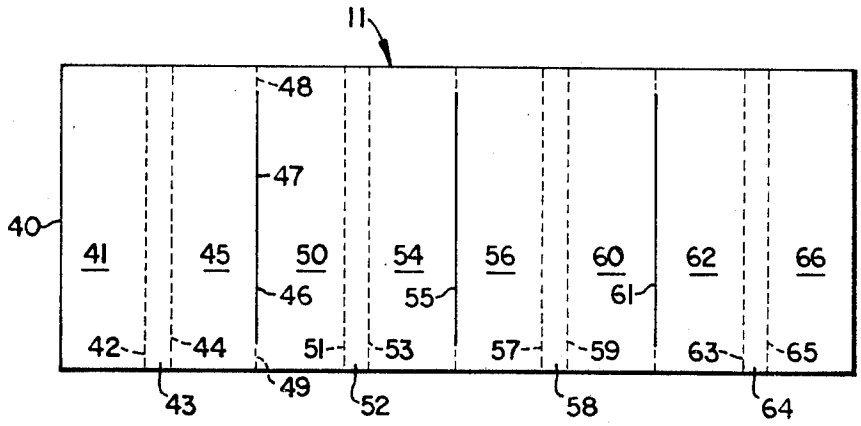


FIG_3

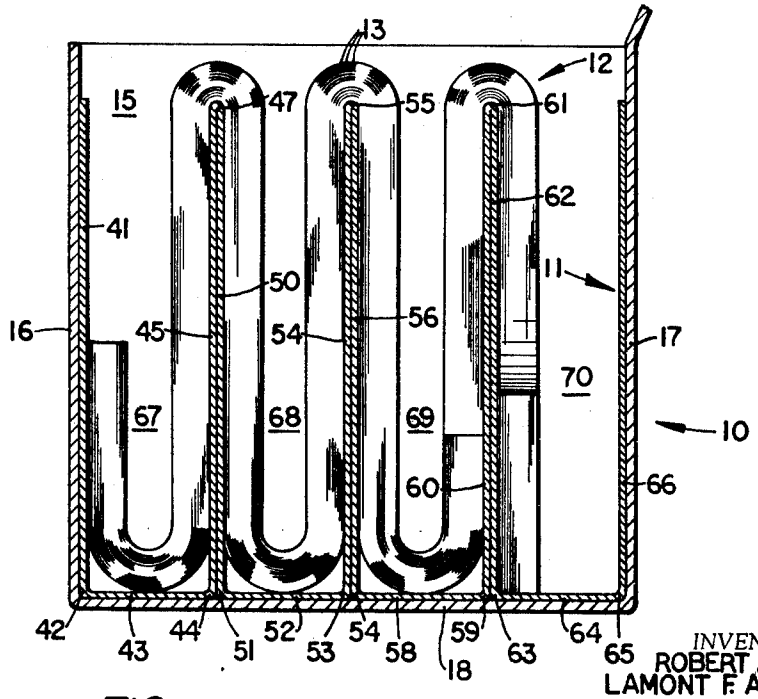


FIG_4

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DISPENSING PACKAGE FOR APRONS

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U.S. Cl. 206—57 2 Claims

ABSTRACT OF THE DISCLOSURE

A package of thin sheet-plastic aprons or the like stacked for individual dispensing. A rack is folded from a flat sheet to provide major upstanding portions against the front and rear walls of an outer box and a series of major upstanding portions in between, with minor bottom portions resting on the bottom wall of the outer box and cooperating with the major portions and the box to porvide compartments. In the series of major upstanding portions, two major portions back up each other and are folded flat against each other by top folds, each group of two such major portions being separated from the next major portion on each side by a minor portion. A stack of plastic articles is then supported accordion fashion by the rack in the box.

This invention relates to an improved package for plastic aprons and the like.

Plastic aprons are cut from thin sheet plastic and are intended to be disposable. They are used in kitchens, laboratories, darkrooms, hospitals, and other places where it is important to protect one's clothing and where it is considered undesirable to have aprons cleaned often but where it is yet important to use clean aprons.

The plastic aprons being quite thin and being disposable, it is important to have them readily accessible. Individual packaging does not meet this need and greatly increases the total cost. Nor can a stack of aprons conveniently be packaged fully open and flat, because of the wide area that would involve. If the aprons were to be folded into a small package and stacked, they would become quite inconvenient to get out and also inconvenient to package, due to the number of folds that would have to be made. It is also inconvenient to have them packaged in rolls or in such a partially folded shape that they must have two or three unfoldings.

The present invention solves this problem by providing, in addition to an outer box which may be square in cross section in one direction and rectangular in the other, an inner rack which serves to support the aprons so that they can be folded once, then stacked flat, and then brought by the rack to a kind of accordion-like shape of stack and retained thereby the rack inside the box, with the cooperation of the box. The rack providing a series of retaining partitions may be made from a single piece of corrugated box material.

An outstanding convenience of this package is that one can grasp the apron at any of several visible and accessible folds when the package is opened and pull out a single apron without disturbing any of the other aprons. The dispensing is both very quick and convenient. From the manufacturer's standpoint, the packaging is also quite convenient, since it is quite simple to stack the aprons in a once-folded condition on top of each other, to make a vertical stack of the aprons on top of the corrugated sheet from which the rack is to be folded, while it is still flat, and then to fold this corrugated sheet into its accordion-like position and place it into the outside box.

Other objects and advantages of the invention will appear from the following description of a preferred form thereof.

In the drawings:

FIG. 1 is a view in perspective of a package embodying the principles of the present invention, with the top of the package open so that aprons can be dispensed therefrom.

FIG. 2 is a top plan view of one of the plastic aprons of the package of FIG. 1, unfolded to a fully flat condition and indicating the fold line by which it is given a single fold before being stacked and in which folded form it comes out of the carton when dispensed.

FIG. 3 is a top plan view of the inner retainer rack before folding and before laying the stack of aprons thereon.

FIG. 4 is an enlarged view in elevation and in section taken along the line 4—4 in FIG. 1.

As shown in FIGS. 1 and 4, the invention comprises an outer carton or box **10** in which may be a fairly standard type of box, preferably made from corrugated paper, an inner retainer rack **11** also preferably made from corrugated paper, and a stack **12** of the aprons **13**.

The box **10** preferably has square end walls **14** and **15**, rectangular front, back, and bottom walls **16**, **17**, and **18** and a unitary hinged cover **20** with a top wall **21** and flaps **22**, **23**, and **24**, joined by a fold line **25** to the rear wall **17**.

One of the plastic aprons **13** is shown in FIG. 2. As will be seen, the apron **13** can be cut out by so-called "cookie cutters" from sheet plastic without any other manufacturing step, and is provided with an integral neck-strap portion **26** which encloses a head and neck opening **27** and leads down to the main portion **28** covering the chest of the wearer. It also has a pair of integral ties **29** and **30** which extend out from the sides **31** and **32** and are brought around back and tied when the apron **13** is worn. For use in this invention, each apron **13** is individually folded once only before packaging along its longitudinal center line **33** indicated in FIG. 2 to reduce the width of the package. Then they are all stacked flat on each other.

The retainer rack **11** used in this invention comprises a corrugated paper sheet having a series of fold lines, and it will be noted that reading from the left to right in FIG. 3 there is an edge **40** separated by a major portion **41** from a fold line **42** which is spaced by a minor portion **43** a short distance away from the next fold line **44**. The fold line **44** is separated by another major portion **45** from a sharper type of fold line **46**, which is mainly a cut **47** with folds **48** and **49** at the edges only, so that the next major portion **50** can be folded quite flat against the major portion **45**. This continues section after section in this manner with fold line **51** joining the major portion **50** to a minor portion **52**, and a fold line **53** joining the minor portion **52** to the major portion **54**. Then a fold line **55** like the fold line **47** enables a major portion **56** to be folded flat against the major portion **55**. Thence follow in order a fold line **57**, a minor portion **58**, a fold line **59**, a major portion **60**, a fold line **61**, a major portion **62**, a fold line **63**, a minor portion **64**, a fold line **65**, and a major portion **66**.

The result, when the rack **11** is folded, is shown in FIG. 4, in which there are erect major portions **41** and **66** at each end and a series of double thickness erect retainer portions **45**, **50** and **54**, **56**, and **60**, **62** in between. These cooperate with the minor portions **43**, **52**, **58**, and **64** to provide compartments **67**, **68**, **69**, and **70** in between the major portions, each compartment having a bottom wall but open at the top.

The stack **12** of once-folded flat aprons **13** may be placed on the retainer **11** before the retainer **11** is folded, and

then the retainer **11** is folded into the position shown in FIG. 4, thereby putting the apron stack in accordion-like storage position. This means that the side straps **29** and **30**, the neck straps **26** and the abdomen covering portion **28** appear on the retainers as shown in FIG. 1. Thus the walls **45**, **50** support the lower portion of the main apron portion, the walls **54**, **56** support the main portion **28** and straps **29** and **30**, and the walls **60**, **62** support the straps **29** and **30** and neck straps **26**. The major portions **41** and **66** at the ends serve to space the rack **11** in the box **10** and to provide compartments **67** and **70**.

The user, in taking an apron out, grasps one at any portion of the apron **13** above one of the retainer folds **47**, **55** or **61** and is able with his thumb and first finger to immediately separate the top apron **13** from the other other aprons below. Then he simply pulls his selected apron out, leaving all the other aprons in place.

To those skilled in the art to which this invention relates, many changes in construction and widely differing embodiments and applications of the invention will suggest themselves without departing from the spirit and scope of the invention. The disclosures and the description herein are purely illustrative and are not intended to be in any sense limiting.

We claim:

1. A package of thin sheet-plastic articles stacked for individual dispensing, comprising

an outer box having front, rear, bottom, and end walls,

a rack folded from a flat sheet providing major upstanding portions against the front and rear walls of the box and a series of major upstanding portions in between, with minor bottom portions resting on the bottom wall and cooperating with said major portions and box to provide compartments,

the series of major upstanding portions comprising a series in which two major portions back up each other and are folded flat against each other by top folds, each group of two such major portions being separated from the next major portion on each side by a said minor portion, and

a stack of said plastic articles supported accordion fashion by said upstanding portions of said rack.

2. A package of thin sheet-plastic aprons stacked for individual dispensing, comprising

a stack of said aprons, each folded once and then stacked,

an outer box having front, rear, bottom, and end walls,

a rack folded from a flat sheet providing major upstanding portions against the front and rear walls of the box and a series of major upstanding portions in between with minor bottom portions resting on the bottom wall and cooperating with said major portions and box to provide compartments,

the series of major upstanding portions comprising a series in which two major portions back up each other and are folded flat against each other by top folds, each group of two such major portions being separated from the next major portion on each side by a said minor portion,

said plastic aprons being supported accordion fashion by said upstanding portions of said rack.

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U.S. Cl. X.R.

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