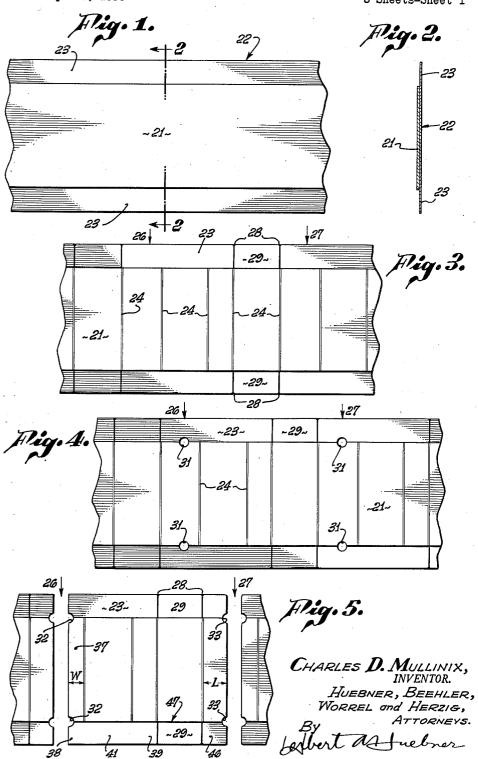
PACKAGING MEANS

Filed Sept. 5, 1950

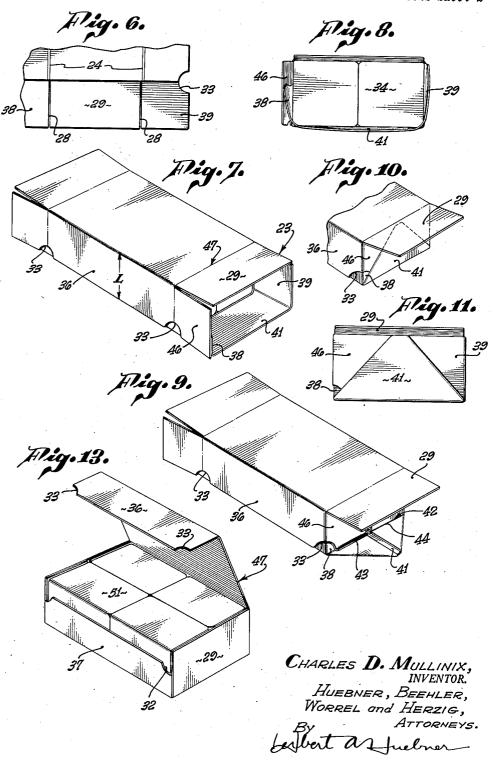
3 Sheets-Sheet 1



PACKAGING MEANS

Filed Sept. 5, 1950

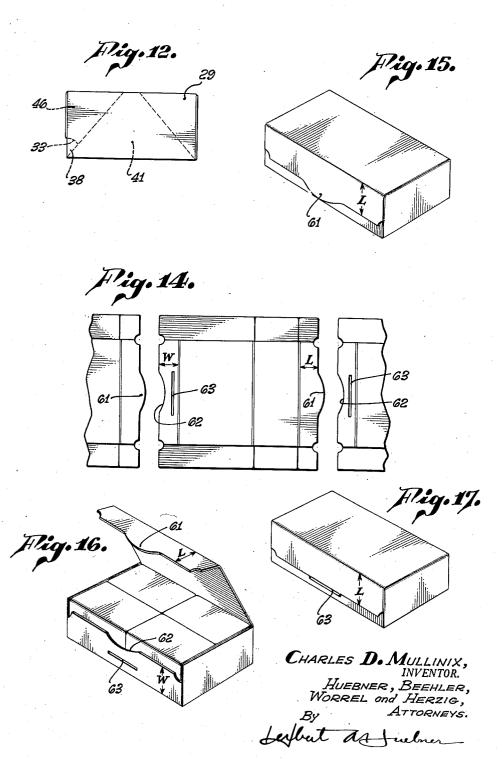
3 Sheets-Sheet 2



PACKAGING MEANS

Filed Sept. 5, 1950

3 Sheets-Sheet 3



1

## 2,835,435

## PACKAGING MEANS

Charles D. Mullinix, Cincinnati, Ohio Application September 5, 1950, Serial No. 183,155 7 Claims. (Cl. 229-87)

This invention relates to packages, specifically to light 15 cardboard packages such as are used to wrap and contain butter.

This invention constitutes an improvement upon the package disclosed in U.S. Patent Re. 23,096, to which reference is made for a fuller understanding of this 20

While features of the instant invention are uniquely adapted for application to the package of Re. 23,096, they are not necessarily limited to the package shown in said reissue patent, but may be applied to other types 25 of packaging.

The instant invention resides particularly in the field of packaging a hexahedron; and while not so limited in any way, has specific application to the wrapping and containing of the conventional butter package consisting 30 of four prints each containing a quarter of a pound of The packaging of the hexahedron is effected in the well-known manner of wrapping a package blank into the shape of a quadrangular cylinder around the hexahedron to be packaged. The flaps extending at each 35 end of the cylinder are then folded inwardly against the ends of the hexahedron and sealed together to contain the package around all six of its faces.

Effective wrapping of a hexahedron can be done in many successful ways to create a package well wrapped, 40 well sealed, easy to open, and easy to re-close temporarily once the original seal has been broken. Also, machine wrapping of packages, particularly hexahedrons, has advanced to a very refined point in the wrapping industry Thus, on the one hand excellent packages are 45 known in the art; and on the other hand machine wrapping of hexahedrons is a well developed art. The perennial problem facing the wrapping industry is to provide a package of superior attributes, and at the same time permit the packaging to be done on a machine. When 50 both these requirements are combined, the problem of packaging hexahedrons becomes far from a simple one.

For example, there are many packages and methods of packaging hexahedrons today which are excellent in their characteristics. They wrap the article well; they 55 may be readily sealed; and they serve as convenient containers until the contents thereof are used up. But such packages as a general rule do not lend themselves at all well to machine operation; in fact, they must generally be made almost completely by hand, which renders them 60 utterly impractical for today's production-line produce. On the other side of the picture, machine wrapped packages are generally deficient in some respects in their packaging qualities—either in that they leave something to be desired in the way of sealing; or are not con- 65 veniently opened; or when opened are of such character that the opening of the package destroys it as a subsequent container, requiring either immediate use of the contents or transfer thereof to another container.

to provide a package blank, a package, and a method of packaging, which produce a superior package and

wrapping, and which are fully amenable to modern high speed wrapping and packaging machinery.

It is another object of this invention to provide a package blank and package which result in a better sealed wrapping and package.

It is another object of this invention to provide a package better adapted for the acceptance of external advertising literature on its flaps. This advantage is particularly important in today's volume retailing, where 10 display space is at a premium and it is necessary for the retailer to stack his articles, for example, pounds of butter, with only one end of the package showing, and at the same time to convey to the self-service shopper information as to the indentity of the butter brand.

More specifically in this connection, it is an object of the instant invention to provide a package for a hexahedron in which the end fold is a single flap completely covering the end, which flap may be completely covered with display and advertising indicia.

The average user of packaged goods, particularly foodstuffs, is in the habit of opening the package which he buys at the store and using it to contain the contents until they are completely used up. Thus, the package serves not only as a marketing vehicle, but also as a dispensing container which may be temporarily opened and closed by the consumer. One of the easiest dispensing containers to use is the trunk type of container having four sides and a bottom, and a top having a hinged lid with a lip opposite the hinge to tuck in inside the wall of the container when it is desired to close the package temporarily. This style package is not only very easy to use but it is one with which the average consumer is very familiar.

It is therefore an object of this invention to provide a package blank, a package, and a method of packaging for a hexahedron which is readily amenable to machine wrapping, and which when opened becomes a trunk type of dispensing container with a hinged lid and a flap to be tucked in.

While trunk style dispensing containers and packages are known in the marketing art, they are generally encountered in two layers, the inner layer being the dispensing box itself, the outer layer being a sealing wrapper which serves to seal the contents during distribution and marketing. This sealing wrapper generally serves no purpose whatever after the original opening of the carton.

It is accordingly an object to provide a package having superior sealing qualities, which may be opened and used as a trunk type dispensing container, and which may be placed around the hexahedron to be wrapped, in the form of a single blank, as opposed to two-layer wrapping.

It is a further object of this invention to provide a package blank and package which may be more easily opened; which, when opened, becomes a trunk style dispensing container having a lid and a lip, which lid may be more easily tucked inside the package when the container is temporarily closed after removal of a portion of the contents.

In accordance with these objects, and with others which will become apparent in the ensuing specification, the instant invention will now be described with reference to the accompanying drawings wherein:

Figure 1 is a view of a continuous laminated package blank before it is operated upon in accordance with the instant invention to create the package blank and package forming the subject matter of this invention;

Figure 2 is a cross-sectional view taken on line 2-2 of Figure 1;

Figure 3 shows the continuous blank of Figure 1 after It is therefore the principal object of this invention 70 certain creasing and slitting operations have been effected

Figure 4 is a view similar to Figure 3 showing the

3

blank after certain other operations have been effected thereon:

Figure 5 is a further view in the successive process of creating the blank and shows the continuous blank severed into individual package blanks;

Figure 6 is a fragmentary enlarged view of a portion of the blank shown in Figure 5;

Figure 7 shows a package blank wrapped around a hexahedron in the initial stages of the packaging

Figure 8 is an end view of the partially wrapped package of Figure 7;

Figure 9 is a perspective view similar to Figure 7 showing the package after the side flaps have been folded in against the ends of the hexahedron;

Figure 10 is a perspective view showing the bottom flap as well as the side flaps folded in against the end of the hexahedron being packaged;

Figure 11 is an end of the package in the stage shown in Figure 10;

Figure 12 is an end view of the package with all the end flaps folded in and sealed;

Figure 13 is a view of the completed package after it has been opened by the consumer, showing the trunk style dispensing container which is created, having the 25 usual lid and lip to be tucked in;

Figure 14 is a view of a package blank corresponding to Figure 5, showing a modified form of the instant

Figure 14 formed into a completed package;

Figure 16 is a view showing the package of Figure 15, opened for the dispensing of its contents; and

Figure 17 is a view showing the package of Figure 16, temporarily closed by the consumer after the original seal has been broken.

The instant invention is particularly adaptable to the style of package shown in Reissue Patent 23,096; and the features of the instant invention in combination with the features of the reissue patent have certain unique advantages which neither alone possesses. It will be readily understood from the following description, however, that the features of the instant invention are not necessarily limited to a package of the style shown in said reissue patent. Therefore, while the instant invention will now be described in conjunction with a package blank of the type illustrated in said reissue patent, it is to be understood that the instant invention is not limited in application to such a style of package.

shown comprising an elongate sheet-like form composed of a relatively heavy sheet 21 bonded to a relatively light sheet 22. The heavy sheet is of less width than the light sheet and the sheets are positioned with their medial longitudinal lines substantially coinciding, so that there extends on each side of the heavy sheet marginally extending side portions 23 consisting of the light sheet 22 The sheets 21 and 22 are preferably of the type disclosed in Reissue Patent 23,096 and are preferably. although not necessarily, bonded together in the manner taught in that patent.

Referring to Figure 3, the continuous blank of Figure 1 is fed through automatic machinery which produces repeated series of spaced, transverse, scored lines 24 across the width of the heavy sheet 21. These score lines 24 constitute fold lines spaced apart by the dimensions of the hexahedron to be wrapped. As seen in Figure 3, each series consists of four lines, and for reasons which will become apparent hereinafter a single series will be regarded as extending from the arrow 26 to 70 the arrow 27. Inwardly extending slits 28 are formed in the marginal portion 23 in line with two adjacent fold lines 24 of each series. The slits 28 extend inwardly to the two side edges of the heavy sheet 21 and form end flaps 29 on each side of the package blank.

As seen in Figure 4, the next operation consists in punching pairs of holes 31 in line with each of the arrows 26 and 27, and therefore between each series of score lines 24. The holes 31 are disposed transversely across the continuous blank and are spaced from the outer edge of the light sheet 22 so as to coincide substantially with the side edges of the heavy sheet 21, and thus form notches in the side edges of the heavy sheet 21. The spacing of the holes 31 longitudinally along the blank is determined by suitable photoelectric apparatus which positions the holes in accordance with the printing on the face of the package blank.

With the blank still in continuous form as shown in Figure 4, the holes 31 serve as guiding holes during the feeding of the blank through the wrapping machine. In use, suitable pegs or sprockets come into registry with the holes 31, thereby continuously maintaining the blank in proper position for the severing step described herein-Thus, the severing of the continuous blank of 20 Fig. 4 into individual blanks shown in Figure 5 is done with proper respect to the printing on the blank without an additional photoelectric control, the registration of the pegs in the holes 31 serving to maintain proper registry for the severing cut.

The final step in the formation of an individual package blank from the continuous blank of Figures 1-4 is shown in Figure 5, wherein the continuous blank has been severed transversely along the line designated by the arrows 26 and 27. The severing cut passes diametrically through Figure 15 is a perspective view showing the blank of 30 the holes 31 formed in the blank and thereby forms two semi-circular notches 32 and 33 at each end of the blank. It will be noted that the cutting line severing the continuous blank into individual package blanks is not midway between the two next adjacent score lines. On the con-35 trary, the cutting line is asymmetrical, so that the width "L" (symbolizing LID) is greater than is the width "W" (symbolizing WALL).

We thus have after the operation discussed above, a package blank consisting of a rectangular, laminated, sheet-like form composed of a relatively heavy sheet 21 and a relatively light sheet 22, the heavy sheet being narrower than the light sheet but of the same length, the sheets being bonded together with their ends coinciding and with the side edges 23 of the light sheet extending beyond the edges of the heavy sheet. The heavy sheet has four transverse, scored, fold lines 24 thereacross, and the light sheet has four slits 28, two in each side portion and in line with two adjacent fold lines 24 in the heavy sheet, thereby to form a separate flap 29 at each side Referring to Figure 1, a continuous package blank is 50 edge of the form. It is particularly important in the instant invention that the remainder of the side edges 23 of the light sheet 22 is free of slits, so that the only separate flaps are the two flaps 29, one on each side of the package blank.

> In addition, the form has four notches, two of the notches 32 being in one end edge of the form and the other two notches 33 being in the other end edge of the form. The notches are positioned inwardly from the corner of the form a distance corresponding to the width of the flap 23 of the completed package, so that they come at the corners of the heavy sheet 21, thus, a portion of each notch cuts off the corresponding corner of the heavy

> In passing, it will be noted that it is preferred to position the slits 28 in line with the "outer edges" of the corresponding scored lines 24, of which the slits 28 form in effect continuations. As shown in Figure 6, the score lines 24 are not actually lines in the geometrical sense but have an appreciable width. It is preferred that the slits 28 be co-linear with the inner edges of these score lines 24. This is in order that the side flaps 38 and 39 when they are folded in against the end of the hexahedron will tuck in tightly under the separate end flap 29 and effect a good seal. The individual package blank shown in Figure 5 is

ready to be used in a wrapping machine to be wrapped around, and form the package for, a hexahedron, as for example, four quarter pound prints of butter. The first operation of the machine is illustrated in Figures 7 and 8. This consists simply in wrapping the blank around the hexahedron, whose length corresponds to the width of the heavy sheet 21 of the blank. Thus, the marginally extending portions 23 of the light sheet 22 constitute end flaps extending beyond the quadrangular cylinder which is a hexahedron. The margins of the end faces 34 (Fig- 10 ure 8) of the hexahedron thus substantially coincide with the side edges of the heavy sheet 21.

After the hexahedron has been wrapped as shown in Figure 7, the lip portion 36 (of width "L") is bonded to the wall portion 37 (Figure 12) which it overlies, and 15 the package is ready to be closed and sealed at its ends by the inward folding of the marginally extending portions 23.

In wrapping the package shown in Figure 7 by means of a machine, it has been found expedient to advance 20 the package through the machine in such a way that certain cam surfaces act upon the flaps so as to first fold the side flaps 38-46 and 39 inwardly against the end 34 of the hexahedron; then advance the package so that another cam folds the bottom flap 41 upwardly against 25 the end 34; and finally fold the top flap 29 downwardly against the end 34 so as to overlie and completely cover the other folds. It is this limitation inherent in the typical wrapping machine which makes it imperative that only the top flap 29 be separated from the other end 30 flaps of the package. That is to say, the side flaps 38-46 and 39 must be integral with the bottom flap 41 for this reason: after the side flaps 38-46 and 39 are folded in against the end 34 of the hexahedron as shown in Figure 9, the package passes into a region where the flaps 35 are free of any pressure member whatsoever. This means that the infolded side flaps 38-46 and 39 must retain their folds until the package reaches that stage in the machine where the bottom flap 41 is folded upwardly. If the side flaps 38 and 39 were to be separated from 40 the bottom flap 41 by another pair of slits, then the only fold tending to hold the side flaps in during this critical interim period would be the folds 42 at the side of the package. These folds are not sufficient to of themselves hold the side flaps in against the end 34. If the flaps were separate they would tend to unfold during the interim in the machine between the infolding of the sides and the upfolding of the bottom flap 41, with the result that the bottom fold would not be in proper position relative to the side folds and an entirely unsatisfactory seal would result. It has therefore been recognized that the auxiliary folds 43 and 44 resulting from the 45 degree corner formed on the bottom flap 41 are needed in order to retain the side flaps 38 and 39 folded inwardly against the end 34.

It has been discovered in accordance with the instant invention and is an important feature thereof that it is not necessary that the side flaps 38 and 39 be formed integral with both the bottom flap 41 and the top flap 29. Sufficient holding-in or creasing action is obtained when only the bottom flap 41 is left integral with the side flaps. The top flap 29 may thus be separated from the remainder of the end flaps, with the attendant advantages which have been pointed out in part hereinbefore and which will be more particularly pointed out hereinafter.

The advantages of the separate flap 29 are divided principally into two categories: (1) The flap is a full end flap, making a nicer appearing package and giving a full end panel for advertising and display purposes. (2) Much better end sealing of the package is achieved 70 by virtue of the decrease in number of sheet thicknesses which the bonding heat must penetrate in order to seal the ends. This aspect of the instant invention will be discussed more fully hereinafter.

After the end flaps 38-46 and 39 have been folded 75 tue of the relieving or bevelling at the notches. These

or creased inwardly against the end of the hexahedron 34 as shown in Figure 9, the bottom flap 41 is creased upwardly as shown in Figure 10. The top flap 29 is then folded downwardly over the end 34 to overlie all of the other flaps or folds and to constitute a full end panel

covering completely the end of the package.

During the making of these folds, suitable adhesive is applied between the various folds. After the folds have all been completed, a hot anvil is momentarily applied against the ends of the package to seal all the folds together and thereby seal the package from moisture and other contaminating influences. When packaging such delicate and perishable materials as butter, it is imperative that this heat seal be no hotter nor longer than absolutely necessary to obtain a good end seal, which can be effected only by good bonding together of all layers in the end seal. Where the package blank is to be formed without the slits 28, so that the top flap 29 was integral with the side flaps 38 and 39 and therefore substantially identical and symmetrical with the bottom flap 41, there would be in one region of the end seal a total of six layers-meaning that the heat would have to pentrate five thicknesses of paper, or other wrapping vehicle, before it could bond to the inner layer. It is not sufficient merely that the outer layers alone be bonded together, for this would leave capillary passages through which deleterious media could find their way into the package. With the separate end flap 29 of the instant invention, the maximum number of sheets through which the heat must pass to reach the inner sheet is reduced from five to four, a reduction of 20%. While of apparently minor magnitude, this reduction has proved in practice to be of utmost benefit in the packaging of delicate materials such as butter.

End sealing is further fortified by that portion of the notch 33 which is cut out from the flap 46 in the marginal portion of the sheet 22. This is best seen in Figures 9, 10, 11, and 12, which illustrate how the side flap 38 is covered (except for the notch 33), first by the flap 46, and then by the double thickness of the bottom flap 41. As best seen in Figures 10 and 12, the notch 33 provides a small area where the outer or top flap 29 may be bonded direct to the innermost flap 38. Although the area is small, the bond nonetheless serves a valuable function in completing the end seal and is particularly useful in retaining the container in its box shape after it has been initially opened by the consumer, as will be pointed out

more fully hereinafter.

After the end flap 29 in Figure 10 has been folded down and all the flaps bonded together by the aforementioned heat seal, the package is ready for distribution and marketing. After purchasing the article, such as a pound of butter, the consumer, when he is ready to open the package, first inserts his finger or a knife between the package wall 37 and the lip 36 of the package top, these being the two end portions of the blank which were first bonded together in the initial wrapping of the butter. He then severs the edge upwardly (Figure 12), tearing the light sheet 22 along the line coinciding with the side edge of the heavy sheet 21. This tear is effected easily and accurately by virtue of the discontinuity in thickness of the package at the edge of the heavy sheet. He continues tearing across the top of the lid along the line 47 (see Figures 5, 7, and 12) and thus opens the package and simultaneously forms the package lid, which as readily seen in Figure 12, is of the familiar style carton that lends itself so readily to easy access and reclosing. This opening tear is effected with ease and accuracy because of the fact that the tear-line along which the light sheet 22 is torn coincides with the edge of the heavy sheet 21, the line thus constituting a naturally weak tear-line.

The notches 32 and 33 are now used to full advantage. The notches 32 serve to form a central lip portion on the wall 37, while the notches 33 form corresponding lip portions on the bottom of the lip section 36, by vircentrally disposed lip portions on the lip 36 and wall 37, respectively, make it much easier to re-insert the lip 36 inside of the wall 37 when it is desired to close the package 12 after removal of a portion of the contents. The edges of the notches 33 in particular serve as a guide to assist in the insertion of the lip 36 between the wall 37 and the butter prints 51.

With the package opened as shown in Figure 12, the seal between the top flap 29 and the inner side flap 38, effected through the notch 33 (Figure 11) becomes quite important. Since the end wall 37 is contiguous to the flap 38, it is necessary to retain the flap 38 in position in order to maintain the box in shape. The direct seal between the flaps 38 and 29 results in a strong bond which holds the wall 37 up in orthogonal position despite repeated use of the container.

Figures 14, 15, 16, and 17 illustrate a modified form of the instant invention.

Referring to Figure 14, the blank of Figure 14, instead of being severed transversely by a straight cut, is cut so 20 that a tab 61 projects from the edge of the lip margin L of the blank, leaving an indentation 62 in the edge of the wall margin W. Also, the blank is so proportioned that the cut is made with the lip margin L narrower than in the form shown in Figure 5. In the modification of 25 Figure 14, in fact, the width of the lip L is reduced to approximately that of the wall W.

A slot 63 is made in the wall W extending transversely of the blank and positioned inwardly from the indentation 62. The slot 63 is made just long enough to accommodate the tab 61, as will be pointed out hereinafter.

The blank of Figure 14, is wrapped around the package contents in the same way as described hereinbefore in connection with the blank of Figure 5, the resulting sealed package appearing as shown in Figure 15. One purpose of the tab 61 will now be apparent from Figure 15, namely, to facilitate the initial opening of the package by the breaking of the bond between the wall W and the lip L. In use, the consumer inserts a finger or a knife under the tab 61 and thus obtains an initial break for the 40 complete severing of the bond between the lip and the wall.

The opened package is shown in Figure 16.

The second function of the tab 61 is illustrated in Figure 17, showing the package closed after initial opening by the consumer. In such closing, the lip L, instead of being tucked inside the wall W as with the modification shown in Figure 13, is replaced outside of the wall in its original position, and the tab 61 is inserted into the slot 63 to hold the package closed.

From the above description it will be seen that there has been disclosed herein a package blank, a package, and a method of packaging, which result in a package of superior preserving qualities by virtue of a superior seal; and of increased usability by virtue of increased ease of opening and temporary reclosing; which package is readily amenable to wrapping processes effected by present day types of package wrapping machines.

While the instant invention has been shown and described herein in what is conceived to be the most practical and preferred embodiment, it is recognized that departures may be made therefrom within the scope of the invention, which is therefore not to be limited to the details disclosed herein but is to be accorded the full scope of the claims so as to embrace any and all equivalent methods and apparatus.

What is claimed is:

1. A package blank comprising a rectangular laminated sheet-like form composed of at least one relatively heavy sheet and at least one relatively light sheet of tearable 70 material, the heavy sheet being of less width than the light sheet but of the same length, the sheets being positioned with their ends coinciding and with their medial longitudinal lines substantially coinciding, the laminated central portion of the blank being relatively thick, the 75

marginally extending side portions of the light sheet being relatively tearable, spaced, transverse, scored fold lines extending across said heavy sheet, four slits, two in each side portion of said light sheet in line with two adjacent fold lines and forming a separate flap at each side edge of the form, the remainder of said form being free of slits, said form having four notches, two in each end edge of the form disposed at the corners of said heavy sheet, a portion of each notch cutting off the corresponding corner of said heavy sheet.

2. A continuous blank for packages comprising an elongate sheet-like form composed of at least one relatively heavy sheet and at least one relatively light sheet of tearable material, the heavy sheet being of less width than the light sheet, said sheets being positioned with their medial longitudinal lines substantially coinciding, the laminated central portion of the blank being relatively thick, the marginally extending side portions of the light sheet being relatively tearable, repeated series of spaced, transverse, scored fold lines extending across said heavy sheet, said light sheet being slitted at each side by pairs of slits aligned with two adjacent fold lines of each series and extending inwardly to the edges of said heavy sheet, the remainder of said light sheet being unslitted, said blank having pairs of holes between each of said series of lines, each of said pairs of holes being disposed transversely across the form so as to form notches in the side edges of said heavy sheet.

3. A package made of a laminated blank comprising a relatively heavy sheet bonded to a relatively light sheet, said heavy sheet being coextensive in length with, but narrower than, said light sheet, whereby said light sheet extends at each side beyond the edges of said heavy sheet to form end fold portions for the completed package, marginal notches formed in said blank at each end edge thereof, said notches cutting off the corners of said heavy sheet, said heavy sheet being transversely scored to form fold lines, said light sheet being slitted in line with, and at each end of, two adjacent fold lines to form separate flaps, one on each edge of the blank, said blank being folded into a box, with opposite ends of said blank overlapping and being bonded together, the fold portions of said light sheet being folded inwardly and sealed together to constitute ends for the box, said separate flaps being folded to overlie externally the other folds, whereby upon breaking the bond between said opposite ends of the blank said light sheet may be readily torn along a line coinciding with the side edges of said heavy sheet, thereby to form a box lid for the open package, the end of said heavy sheet adjoining the lid constituting a lip which

may be tucked in for the closing of the box. 4. A package blank comprising a rectangular laminated sheet-like form composed of at least one relatively heavy sheet, and at least one relatively light sheet, the heavy sheet being of less width than the light sheet and of the same length, the sheets being positioned with their ends coinciding and with their medial longitudinal lines substantially coinciding, the laminated central portion of the blank being relatively thick, the marginally extending side portions of the light sheet being relatively pliable, four spaced transverse scored fold lines extending across the heavy sheet dividing said sheet into five longitudinally spaced areas comprising successively a first side wall area, a bottom wall area, a second side wall area, a top wall area, and a lip area, each of the two side portions of the light sheet being provided with slits extending from the respective edges of said portions inwardly to the adjacent edge of the heavy sheet, said slits being aligned with two adjacent fold lines, one of said adjacent fold lines being proximate an end of said form, said slits forming separate flaps at the side edges of the form, the remainder of said side edges being free of slits, whereby when the form is folded about a hexahedron and into the shape of a quadrangular cylinder, said lip area may overlap and be adhered to said first side wall

area, with the marginally extending portions of said light sheet extending beyond the ends of the hexahedron and constituting end flaps adapted to be formed into the end walls of the package, said form having four notches, two in each end edge of the form disposed at the corners of said heavy sheet, a portion of each notch cutting off the corresponding corner of said heavy sheet.

5. A continuous blank for packages comprising an elongated sheet-like form having parallel and straight side edges and being formed of at least a first sheet de- 10 fining the outline of the form and a second sheet having parallel and straight side edegs and being of less width than the first sheet, said sheets being positioned with their medial longitudinal lines substantially coinciding, at least one of said sheets having repeated series 15 of spaced, transverse, scored fold lines located within the area defined by said second sheet, said first sheet being slitted at each side by a pair of slits aligned with two adjacent fold lines of each series and extending inwardly to respective edges of said second sheet, the remainder 20 of said first sheet being unslitted, said blank having pairs of holes between each of said series of lines, each of said pairs of holes being disposed transversely across the form so as to form notches in the side edges of said second sheet.

6. A package blank comprising a first rectangular sheet having end edges and straight side edges, a second rectangular sheet of less width than the first sheet but of the same length, the sheets being arranged with their end edges coinciding and with the medial line of said second sheet bisecting the end edges of the second sheet substantially coinciding with the medial line of the first sheet bisecting the end edges of the first sheet to provide marginally extending side portions of the first sheet defined by adjacent side edges of the first and second sheets, said blank having four notches, two in each end edge of the blank disposed at the corners of said second sheet, a portion of each notch cutting off the corresponding corner of said second sheet.

7. A blank for forming a generally right non-circular cylindrical package comprising a rectangular sheet-like form having end edges and straight side edges, the length of said side edges being such that the form is of sufficient dimension in the direction of said side edges to 45

provide portions of said form adjacent respective end edges that will lie in overlapping relation with respect to each other when said package is formed, the form being of sufficient dimension in a direction normal to said side edges to provide marginally extending side portions for forming respective end walls of said package, each of said side portions being provided with a pair of parallel slits extending from respective side edges of the form and being parallel to said end edges, said side portions being otherwise free of slits, the slits in one pair being aligned respectively with the slits in the other pair, all of said slits being of equal length, those portions of said form lying between slits in a pair constituting generally rectangular end flaps, said slits being of a length and being spaced apart by a distance such that the end flaps defined by respective pairs of slits when folded into respective planes forming the end walls of the package are at least co-extensive in area with said end walls, said form having notches formed therein, there being two of said notches in each end edge of the form, one notch in one end edge being aligned with one notch in the other end edge and with the inwardly disposed ends of one pair of said slits, the other notch in said one end edge being aligned with the other notch in said other end edge and with the inwardly disposed ends of the other pair of said slits.

## References Cited in the file of this patent

## UNITED STATES PATENTS

30		
,	Re. 23,096	Mullinix Apr. 5, 1949
	637,642	Morgan Nov. 21, 1899
	1,007,918	Chambers Nov. 7, 1911
	1,135,878	Christensen Apr. 13, 1915
35	1,433,439	Weis Oct. 24, 1922
	1,468,237	Kehn Sept. 18, 1923
	1,517,964	Drysdale Dec. 2, 1924
	1,546,074	Holland July 14, 1925
<b>1</b> 0	2,018,717	Daller Oct. 29, 1935
	2,206,304	Ringler July 2, 1940
	2,284,604	Brooks May 26, 1942
	2,363,861	Goodyear Nov. 28, 1944
FOREIGN PATENTS		
15	316,819	Great Britain Aug. 8, 1929