Feb. 17, 1970 R. C. BERGSTROM ET AL 3,495,759

RECLOSABLE PACKAGE

Filed April 24, 1968 2 Sheets-Sheet 1

Fig. 1

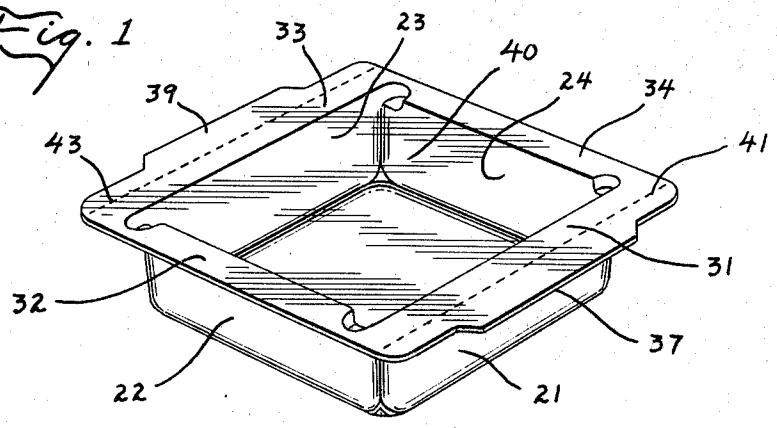


Fig. 2

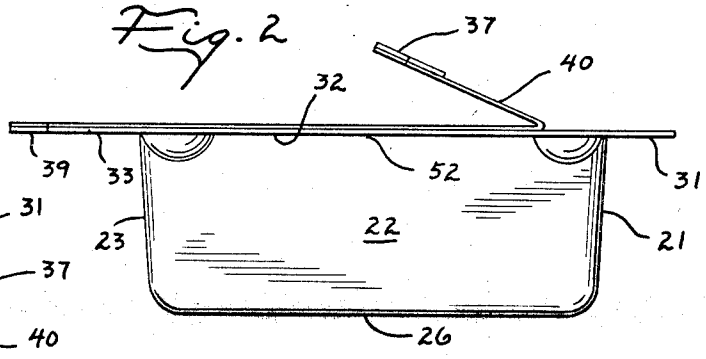


Fig. 3

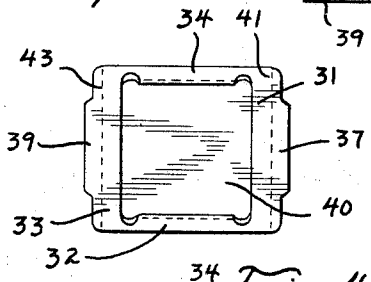


Fig. 4

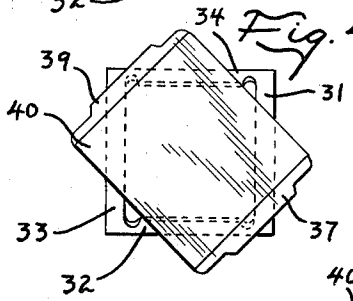


Fig. 5

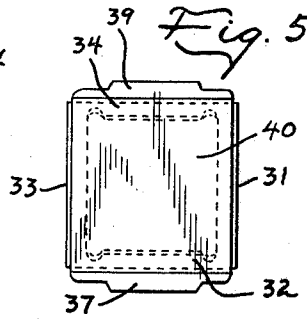


Fig. 6

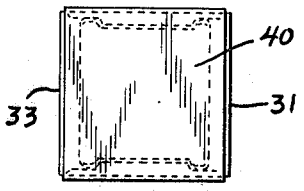
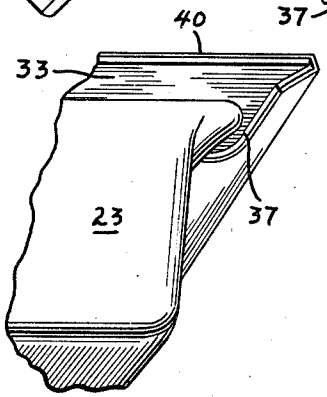


Fig. 7



Inventors
Roger C. Bergstrom
William P. Jacobson

By McCanna, Morsbach & Pillote

Attys

Feb. 17, 1970 R. C. BERGSTROM ET AL 3,495,759

RECLOSABLE PACKAGE

Filed April 24, 1968 2 Sheets-Sheet 2

Fig. 8

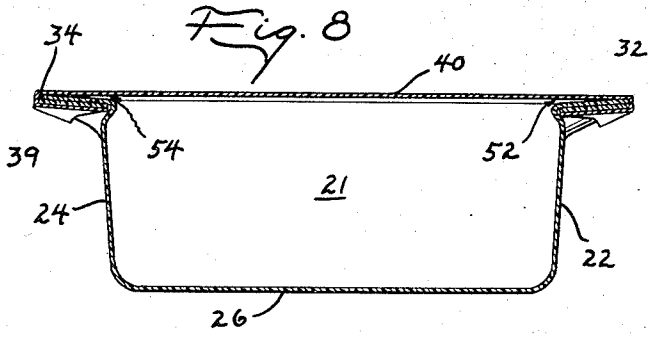


Fig. 9

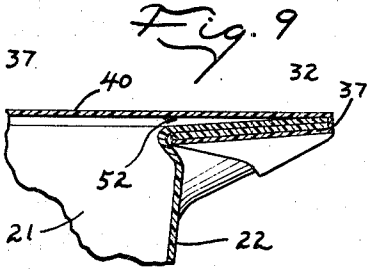


Fig. 10

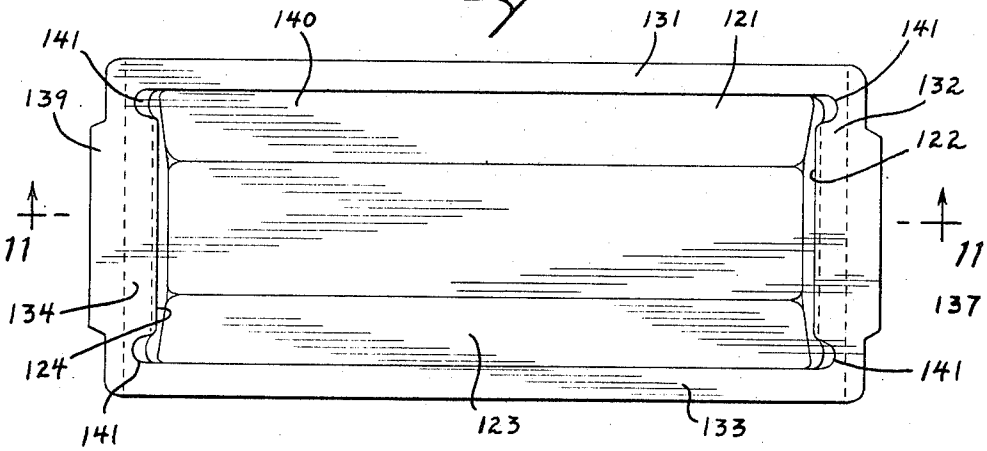


Fig. 11

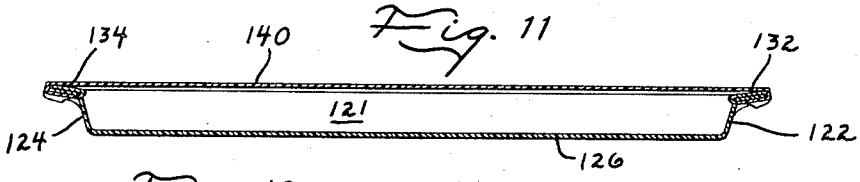


Fig. 12

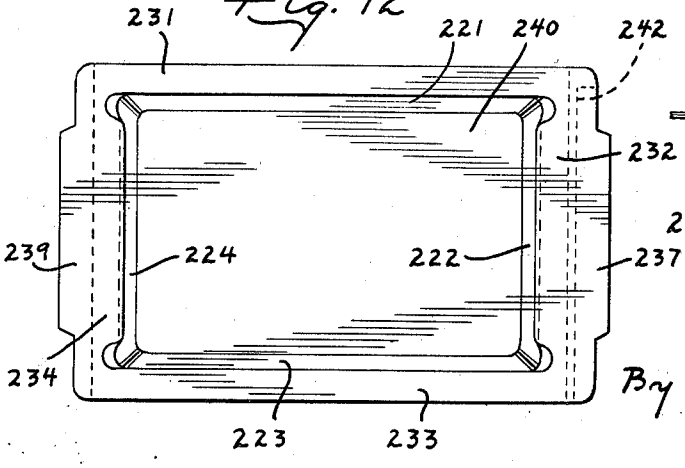
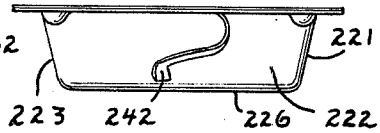


Fig. 13



Inventors
Roger C. Bergstrom
William P. Jacobson
By McCanna, Morsbach & Pillote
Attys

United States Patent Office 3,495,759
Patented Feb. 17, 1970

3,495,759

RECLOSABLE PACKAGE

Roger C. Bergstrom and William P. Jacobson, Rockford, Ill., assignors to Anderson Bros. Mfg. Co., Rockford, Ill., a corporation of Illinois

Filed Apr. 24, 1968, Ser. No. 723,734
Int. Cl. B65d 5/54
U.S. Cl. 229—45 10 Claims

ABSTRACT OF THE DISCLOSURE

A container having a peripheral flange with first and second outer flange portions at opposite sides of the container. The flange portions may be lifted to peel and completely remove a sealed cover member. Retaining means are provided at opposite sides of the container for engaging the outer flange portions and holding the cover member in a reclosed position.

BACKGROUND

The invention relates generally to packages and more particularly to reclosable packages.

There are many commodities which are not ordinarily consumed at one time, such as luncheon meats, cheese, butter, etc. Under such circumstances, it is desirable to reclose the package to protect the produce. In the prior art, Patent No. 3,371,848 shows various embodiments for accomplishing this result. In those embodiments, however, it was not possible to completely remove the cover member without destroying the reclosing feature. Complete removal of the cover member is frequently desirable, as when the container is to be used as a serving dish in informal dining.

SUMMARY

The present invention provides a reclosable package including a container having flange portions, a cover member which is completely removable from the container while the flange portions remain secured to the cover member, and means for holding the cover member in reclosed position.

It is an object of the present invention to provide a reclosable package having a completely removable cover member and means for holding the cover member in reclosed position.

Another object is to provide a container having an outwardly projecting flange and a cover member overlying the open end and sealed to the flange, and in which portions of the flange at opposite sides of the container may be utilized to hold the cover member in reclosed position.

Still another object of the present invention is to provide a container, a removable cover member sealed thereto with a peelable-type seal, and first and second retaining means at opposite sides of the container for holding the cover member in reclosed position.

These, and other objects and advantages of the present invention, will become apparent as the same becomes better understood from the following detailed description taken in conjunction with the drawings.

DRAWING

FIGURE 1 is a perspective view of an embodiment of the present invention;

FIG. 2 is a side elevational view thereof and showing the cover member being removed;

FIGS. 3–6 are small-scale top views of the embodiment of FIG. 1 and showing steps in opening and reclosing the package;

FIG. 7 is a fragmentary perspective view showing the relationship of the parts in reclosed position;

FIG. 8 is a longitudinal sectional view of the embodiment of FIG. 1 when in reclosed position;

FIG. 9 is a fragmentary sectional view on a larger scale than FIG. 8 and showing the retaining means in greater detail;

FIG. 10 is a top view of another embodiment of the present invention;

FIG. 11 is a sectional view taken generally along line 11—11 of FIG. 10 but showing the reclosed position;

FIG. 12 is a top view of still another embodiment of the present invention; and

FIG. 13 is a side view as seen from the right of FIG. 12 and showing a strip being removed from the flange.

DESCRIPTION

Reference is now made more particularly to the drawings which illustrate the best presently known mode of carrying out the invention and wherein similar reference characters indicate the same parts throughout the several views.

In the embodiment of FIGS. 1–9, the package includes a rectangular container having side walls **21–24** rising upwardly from a bottom wall **26**. The container illustrated is advantageously made of thin thermoplastic material; however, it is contemplated that other materials may be utilized within the spirit of the present invention. The upper ends of walls **21–24** define an open end of the container, and preferably the upper ends of the walls are generally coplanar. Flanges **31**, **32**, **33**, and **34** extend outwardly from the upper ends of walls **21**, **22**, **23**, and **24**, respectively, to define an outwardly extending peripheral flange. Adjacent the outer edge of flange **31** at one lateral side of the container is an outer flange portion **37**. Similarly, adjacent the outer edge of flange **33** at the other lateral side of the container is an outer flange portion **39**. The purpose of these outer flange portions will hereafter become apparent.

A flexible cover member **40** overlies the upper end of the container and is sealed to the peripheral flange to provide a sealed package. Cover member **40** is also sealed to the outer flange portions **37**, **39** for a purpose hereafter described. The cover member may be sealed to the peripheral flange in any convenient manner, and may be a transparent thermoplastic material compatible with the material of the container and heat-sealed to the flanges, if desired. In any event, the seal between the cover member and the peripheral flange is preferably a peelable-type seal so that the cover member may be manually peeled from the peripheral flange by a consumer.

Outer flange portions **37** and **39** may be separate strips having their inner edges adjacent the outer edges of flanges **31** and **33**, or may be initially connected to the respective flanges as illustrated in the drawing. If so connected, the outer flange portions **37**, **39** are adapted to be separated from their respective flanges at the outer extremity thereof while cover member **40** remains sealed to the outer flange portions. For this purpose, the container shown in FIGS. 1–9 is advantageously formed of a breakable material, and the separation is accomplished by deflecting the outer flange portions at their juncture with the adjacent flange. As shown, this juncture is indicated at **41** and **43** (see FIG. 1) and defines a generally straight break line. Preferably, lines **41** and **43** are generally parallel to aid in reclosing the container as hereafter described. Depending on the material used, the break line may be provided by a groove, a plurality of slots, notches, or the like.

In accordance with the present invention, the flexible

cover member **40** may be peeled off the peripheral flange by lifting upwardly on either outer flange portion, for example, outer flange portion **37** as shown in FIG. 2. Thus, the outer flange portions **37** and **39** provide alternative grips for peeling of the cover member. For this purpose, cover member **40** is advantageously sealed to the peripheral flange in such a manner that the seal may be broken by a peeling force advantageously in the range of about 3 to 5 pounds. The peeling is then accomplished by the cover member separating from the container at the seal. In accordance with this invention, the cover member is to be removed from the entire peripheral flange so that it is completely separate from the container. In so doing, a consumer obtains initial access to the open end of the container.

After opening, the package may be reclosed by first and second retaining means on opposite sides of the package. Several typical retaining means are illustrated in the aforementioned Patent No. 3,371,848. In the embodiment illustrated, the package is reclosed by moving outer flange portions **37** and **39** to a position underlying flanges **32** and **34** (see FIG. 6) and holding the outer flange portions in that position to hold cover member **40** in closed position. As best illustrated in FIG. 8, the retaining means is in the form of a groove **52** formed closely adjacent the underside of flange **32** and formed in wall **22** at the front of the container, to engage the outer edge of outer flange portion **37** in said underlying position. Similarly, a groove **54** is formed in wall **24** at the rear of the container to engage the outer edge of outer flange portion **39**.

In viewing FIGS. 3–6, it can be seen that the cover member **40** in the attached outer flange portions **37** and **39** are rotated 90° from their initial position (FIG. 3) to their reclosed position (FIG. 6). It has been found that, when cover member **40** is a substantially non-stretchable material, the outer flange portions **37** and **39** cannot be disposed in underlying relationship of flanges **31** and **33** where the outer flange portions were initially attached. This is because the thickness of the flanges takes up some of the cover material **40** as can be seen in FIGS. 7–9. Thus, it has been found that the distance between the inner edges of outer flange portions **37** and **39** must be greater than the distance between the outer edges of flanges **32** and **34** by about four times the thickness of the flange. Thus, in the embodiment of FIGS. 1–9, the outer flange portions **37** and **39** are initially formed adjacent the lateral sides of the container and, after the cover member **40** has been removed by a consumer, the cover member is rotated 90° so that the outer flange portions are adjacent the front and rear of the container (FIG. 5). The flange portions may then be moved to underlying relationship of the flange at the front and rear of the container and held in reclosed position.

Another embodiment of the present invention is illustrated in FIGS. 10 and 11. As shown, the container is relatively longer than the prior embodiment and is substantially long as compared to the flange thickness to accomplish the reclosing feature, as hereafter described. As shown, the container includes walls **121–124** rising upwardly from a bottom wall **126**. A peripheral flange consists of flanges **131–134** extending outwardly from the top of the wall. Outer flange portions **137** and **139** lie adjacent the outer edge of flanges **132** and **134**, respectively, or may be connected thereto as previously described. A cover member **140** is sealed to the peripheral flange and to the outer flange portions with a peelable-type seal. In this embodiment, cover member **140** is preferably made of resilient material and may be removed from the peripheral flange by lifting upwardly on either of the outer flange portions.

As described above, the package may be reclosed by moving the outer flange portions to a position underlying flanges **132** and **134**. To accommodate the aforedescribed thickness of the flanges, it is necessary that the resilience of the cover member **140** be sufficient to allow it to stretch a dimension approximating four times the thickness of the flange over the length of the container. When the outer flange portions are in reclosed position, the cover member is pulled tight, and the resiliency asserts an uplift on the flanges **132** and **134**. In this manner, the effect is similar to that described in application Ser. No. 629,445, filed Apr. 10, 1967, now Patent No. 3,398,877, and assigned to the assignee of the present invention. That application describes means for providing reinforcing for flanges against such an uplift and thus provides an improved reclosing of the container. This reinforcing, in the embodiment of FIGS. 10 and 11, is in the form of ribs **141**. Reference is made to the aforementioned application for a more complete description of the structure and function of the reinforcing means. In this manner, flanges **132** and **134** are reinforced or stiffened adjacent the side walls **122** and **124** to retain the flanges in a general planar position and hold the cover member **140** closely adjacent the side flanges **131** and **133**. The central portion of the cover member **140** and of flanges **132** and **134** may tend to lift as shown in FIG. 11; however, this does not defeat the purpose of a generally tight cover in reclosed position since the cover member does not uplift adjacent the sides.

Still another embodiment of the invention is illustrated in FIGS. 12 and 13. This embodiment relates to another means for providing the preferable difference in distance between the inner edges of the outer flange portions, and the outer edges of the flanges under which the outer flange portions are disposed in the reclosed position. As shown, the container includes walls **221–224** rising upwardly from a bottom wall **226**. A peripheral flange extends outwardly from the upper ends of the walls and includes flanges **231–234**. Outer flange portions **237** and **239** are provided adjacent flanges **232** and **234**, respectively. As can be seen, the inner edge of outer flange portion **237** is spaced from the outer edge of flange **232**. In the embodiment illustrated, this space is in the form of a tear strip **242** which may be torn from the flange and outer flange portion to provide the initial separation and to provide the additional difference in distance previously mentioned. Of course, tear strips can be provided on both sides of the container, if desired, with their total width equalling about four times the thickness of the flange. In this manner, a generally rectangular container can be reclosed without the necessity of rotating the cover member and without the necessity of providing a resilient cover. The removal of cover **240** and the reclosing of the container of this embodiment is accomplished in the same manner as the previous described embodiment.

It can be seen that the present invention provides a reclosable package having a cover member which is completely removable from the container while flange portions remain secured to the cover member, and which can be reclosed over the open end of the container. Means is provided on opposite sides of the container for engaging the outer flange portions and holding the cover member in reclosed position.

While it is contemplated that the present invention may be manufactured in various ways, it may be conveniently formed, filled, and sealed by the apparatus described in Patent No. 3,000,157, issued to Ollier et al. When so formed, thermoplastic materials of various types may be utilized for the container, and the cover member may be of flexible thermoplastic material of any type compatible with the container for sealing thereto. If desired, however, the cover member can be formed of sheets of material which otherwise meet the requirements of the present invention and which is coated with a material for sealing to the container. While various embodiments of the invention have herein been illustrated and described, this has been done by way of illustration and not limita-

tion, and the invention should not be limited except as required.

As one example of a specific package made in accordance with the present invention, the container is formed of thermoplastic material having a thickness of about 20 mils. Thus, four times the flange thickness equals about .08 inch, and the cover member must be able to stretch this amount over its length, or the difference in distance between the inner edge of the outer flange portions and the outer edge of the flanges under which the outer flange portions lie in reclosed position must have this difference. As an example, a difference of about $\frac{3}{32}$ of an inch (.094 inch) has been utilized with satisfactory results.

What is claimed is:

1. A reclosable package including a container having wall means defining an open end; said container having front and rear sides generally opposite each other; an outwardly extending peripheral flange at the open end; first and second outer flange portions at opposite sides of the container and separate from the remainder of the container; a cover member overlying the open end and sealed to the peripheral flange and to the first and second outer flange portions; said package so arranged that at least one of the outer flange portions may be lifted to peel the cover member from the entire peripheral flange to remove the cover member and provide access to the container; the first and second outer flange portions movable to positions underlying the peripheral flange at the front and rear sides, respectively, to reclose the cover member over the open end; first retaining means on the container for holding the first outer flange portion in said reclosed position; and second retaining means on the container for holding the second outer flange portion in said reclosed position; whereby the cover member is removable from the container while the first and second outer flange portions remain secured to the cover member, and after opening the outer flange portions are retained at opposite sides of the container to hold the cover member in reclosed position.

2. A reclosable package as set forth in claim 1 wherein the outer flange portions are initially connected to the outer edges of the peripheral flange at opposite sides of the container but separable therefrom while the cover member remains sealed to the outer flange portions.

3. A reclosable package as set forth in claim 1 wherein the peripheral flange has generally straight outer edges at the front and rear sides and said outer edges being generally parallel; and wherein the first and second outer flange portions each have a generally straight inner edge and said inner edges being generally parallel.

4. A reclosable package as set forth in claim 3 wherein the peripheral flange has a preselected thickness; and wherein the inner edges of the outer flange portions are spaced from each other a distance approximating the distance between said front and rear outer edges of the peripheral flange plus about four times the thickness of the peripheral flange.

5. A reclosable package as set forth in claim 4 wherein the first and second outer flange portions are initially adjacent the front and rear outer edges of the peripheral flange; and including means having a width about four times the thickness of the peripheral flange and disposed between at least one inner edge of the outer flange portion and the adjacent peripheral flange for providing the difference in distance between the inner edges of the outer flange portions and the front and rear outer edges of the peripheral flange.

6. A reclosable package as set forth in claim 4 wherein the peripheral flange has lateral side outer edges extending between the front and rear outer edges and therewith defining a rectangle; wherein the outer flange portions are initially adjacent the lateral side edges of the peripheral flange; and wherein the first and second retaining means are on the container wall means at the front and back of the container, respectively, whereby the reclosed position of the cover member and the attached first and second outer flange portions are disposed about 90° from the initial position thereof.

7. A reclosable package including a container having wall means defining front and rear sides of the container and an open end; an outwardly, extending peripheral flange at the open end; a flexible cover member overlying the open end and peripherally sealed to the peripheral flange with a peelable-type seal; said peripheral flange having first and second flange portions on opposite sides of the container and separable from the remainder of the container along preselected lines while the cover member remains sealed to said flange portions; the cover member being peelable from the remainder of the peripheral flange to remove the cover member and provide access to the container; means for holding the cover member in a reclosed position overlying the open end; and said last-mentioned means including first and second retaining means on the container at the front and rear sides thereof, respectively, for engagement by the respective first and second flange portions, and means on the first and second flange portions for interfitting with the first and second retaining means to hold the cover member in the reclosed position.

8. A reclosable package according to claim 7 wherein: the cover member is made of generally non-stretchable material; the container is generally rectangular and has lateral sides extending between the front and rear sides; the first and second flange portions are initially at the lateral sides of the container; the preselected lines are generally parallel and at the lateral sides of the container; the peripheral flange has a preselected thickness and has generally parallel outer edges at the front and rear sides of the container; the distance between said preselected lines is approximately the distance between the front and rear outer edges of the peripheral flange plus about four times the thickness of the peripheral flange; and the first and second flange portions underlie the peripheral flange at the front and rear of the container in reclosed position.

9. A reclosable package according to claim 7 wherein: the cover member is made of resilient material; the first and second flange portions are initially at the front and rear sides of the container; and the flange portions are movable to a position underlying the peripheral flange at the front and rear of the container in reclosed position and stretch the cover member in reclosed position.

10. A reclosable package according to claim 7 wherein: the first and second flange portions are initially at the front and rear sides of the container; the peripheral flange has an outer edge at the front and rear of the container after the flange portions are separated; the flange portions each have an inner edge after being separated; and at least one of said inner edges being spaced outwardly of the adjacent outer edge of the peripheral flange in the initial position thereof.

References Cited

UNITED STATES PATENTS

606,471	6/1898	Morfoot	220—54
2,998,158	8/1961	Tupper	220—54
3,096,904	7/1963	Hutchinson	220—54 X
3,101,870	8/1963	Betner	220—54 X
3,108,708	10/1963	Betner	229—51 X
3,371,848	3/1968	Ward et al.	229—45
3,398,876	8/1968	Ward	229—45
3,398,877	8/1968	Jacobson	229—45

DAVIS T. MOORHEAD, Primary Examiner

U.S. Cl. X.R.

206—46; 220—54; 229—51