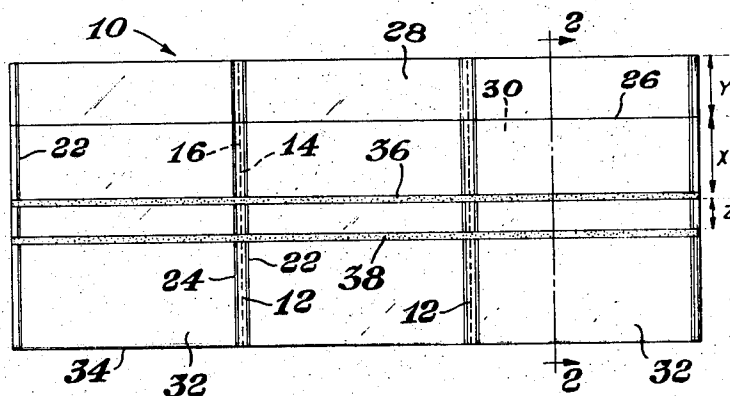
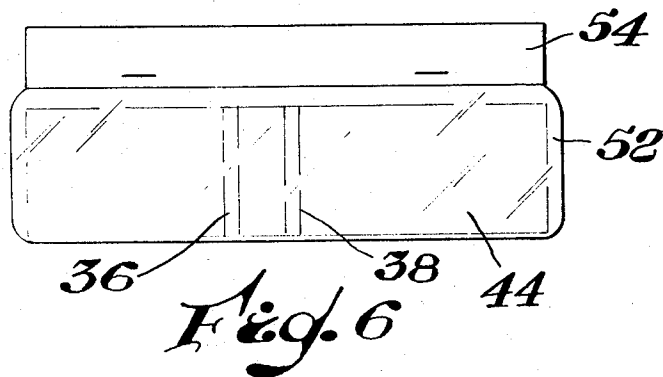
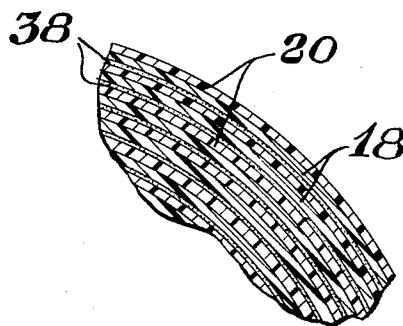
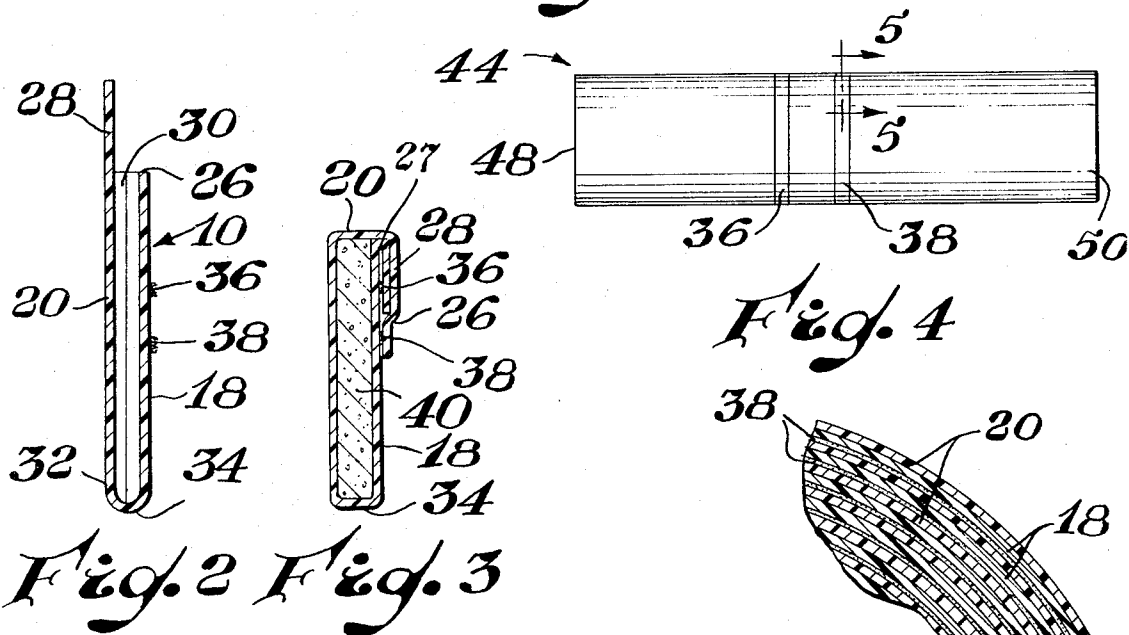
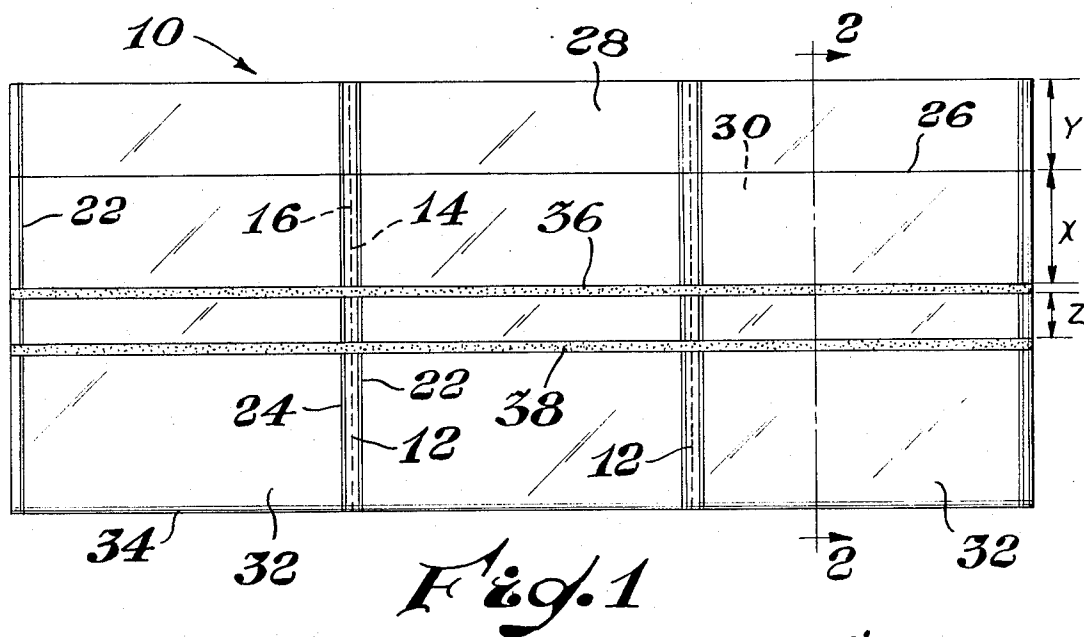


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BAG CLOSURE MEANS

BACKGROUND OF THE INVENTION

1. Field of the Invention

The present invention generally relates to household bags such as are used for packaging sandwiches or like household items. More particularly, the invention relates to such bag constructions including an improved closure comprising at least two spaced apart pressure adhesive strip areas.

2. Discussion of the Prior Art

Commercial embodiments of various household bags, such as are used for packing sandwiches and like items, usually include some type of closure means to securely retain the packaged item within the bag. Oftentimes it is desirable that the closure have a certain degree of air-tightness. It is sometimes desired, therefore, that the closure comprise adhesive material located on an integral flap portion foldable over the bag mouth or opening. This type closure, for example, is well illustrated in U.S. Pat. No. 3,348,762. Other conventional closures for polymeric bags include fold-over top constructions such as are shown in U.S. Pat. No. 2,709,467; or twist tie closures including, for example, the provision of a separate metal wire for tying the bag closed.

The use of an adhesive closure is desirable in that it provides a more convenient and neater closure than, for example, the twist tie method. In addition, it is oftentimes able to provide a tighter closure than, for example, that which is provided by the fold-over top bag constructions of the aforementioned U.S. Pat. No. 2,709,467.

Problems associated with adhesive closures, however, include loss of adhesion upon contamination with, for example, bread crumbs, product or kitchen grease and the like. The closure, therefore, can seal improperly or not at all, rendering the adhesive of less effectiveness than originally desired.

In related packaging arts, therefore, it is sometimes an expedient measure to protect the adhesive by a removable covering placed thereover, as is illustrated in U.S. Pat. No. 3,456,867. Understandably, the provision of such a covering adds to production costs and can detract from the convenience of the closure.

Accordingly, it is among the objects of the present invention to provide the following:

A series of connected bags each including an adhesive closure, the bags being contained in roll form in tight, firm bonding relationship to each other;

A roll of connected bags as indicated wherein the roll is of such character that the bags can be conveniently dispensed therefrom without requirement of the usual roll dispensing carton, if desired, and additionally, wherein the adhesive closure for each bag remains fully protected during roll storage and use;

A connected series of household bags, individually dispensible, and including an integrally formed adhesive closure, the closure being constructed to provide variable volume control for automatically adjusting the size of the bag to that necessary to accommodate the size and/or shape of the item being placed therein; and

A connected series of household bags of the type indicated wherein the adhesive is so located as not to interfere with loading the bag, and therefore is unlikely to become contaminated and lose its adhesive quality.

BRIEF SUMMARY OF THE INVENTION

Briefly then, the present invention contemplates a novel bag construction including an improved adhesive closure means, the bag being adapted for multiple household uses such as for containing sandwiches, or like household items of various sizes and/or shapes. The improved closure comprises a plurality of exteriorly positioned pressure adhesive strip areas preferably extending in spaced apart relationship across the entire width of the bag. In addition, an offset flap portion is disposed adjacent the bag mouth or opening. The bag is closable by tightly folding the flap over the opening and attaching

the flap to one or more of the adhesive strip areas. As will be explained more fully hereinafter, the separate adhesive strips provide automatic volume control for containing articles variable in size. Additionally, in instances where the bags are provided in strip form, such as wound on a roll, a tight compact substantially firm roll is provided that, if desired, permits the bags to be dispensed individually without the requirement of a roll dispensing carton or the like.

The preferred embodiment of the present invention is shown in the accompanying drawings wherein wheresoever possible, like reference numerals designate corresponding parts and material throughout the several views thereof wherein:

FIG. 1 is a front elevational view illustrating a series of connected bag elements constructed according to the principles of the present invention;

FIG. 2 is a cross-sectional view of the bag elements of FIG. 1 taken along reference line 2—2 thereof;

FIG. 3 is a view like FIG. 2 only showing the bag filled and sealed closed;

FIG. 4 is a side elevational view illustrating the bag elements of FIG. 1 as contained in roll form;

FIG. 5 is a partially enlarged cross-sectional view of the roll of bag elements of FIG. 4 taken along reference line 5—5 thereof; and

FIG. 6 illustrates a method of commercially distributing the roll of FIG. 4 without requiring the usual dispensing carton for protectively containing the roll.

DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring now more particularly to the drawings, there is shown in FIGS. 1 and 2 a strip of household bags 10 constructed of polymeric material such as polyethylene, polypropylene, or like conventional bag making or packaging film. Bags 10 are preferably connected together along lines of weakness 12 so that they may be dispensed individually for packaging household items such as sandwiches, for example. Lines of weakness 12 can comprise perforations 14 separated by lands or nonjoined regions 16, but might alternatively exist, for example, as thinned regions or lines in the film.

Each bag 10 includes a first or front wall 18 and opposite thereto, a second or back wall 20 (see FIG. 2). Walls 18 and 20 are joined together along the sides of the bag 10 by seams or heat sealed regions 22 and 24, respectively. Between the seams of adjacent bags reside the lines of weakness 12.

Referring again to back wall 20, the same is desirably extended upwardly beyond the upper edge 26 of front wall 18 to provide an offset flap portion or closure flap 28. Edge 26 remains unsecured or free of back wall 20 so that a mouth or fill opening 30 is provided between edge 26 and the back wall. Bags 10 can be closed across their bottom ends 32, for example, by a fold 34, as is best shown in FIG. 2, but can also be closed by a heat seal, gusseted bottom or the like, as is desired. A gusseted bottom, for example, would be more applicable for bags used for packaging items of greater bulkiness or thickness.

The closure means of bags 10 pertains additionally to spaced apart pressure sensitive adhesive areas 36 and 38 residing, for example, on the exterior face of front wall 18. Two such strips are shown in the drawings although the invention contemplates a plurality of such strips comprising at least two but including also three or four strips, for example, or even a number of strips in excess of four. Desirably, the area of front wall 18 underneath adhesive strips 36 and 38 is treated to provide a firm bond between the adhesive and the front wall. Applicable treatments to obtain this effect as well as appropriate pressure sensitive adhesive formulations, for example, are disclosed in some detail in U.S. Pat. No. 3,348,762.

Referring now to FIG. 3, strips 36 and 38 are cooperable with closure flap 28 for tightly closing opening 30 to seal an article 40 in bag 10. Thus, flap 28 is folded over front wall 18 and, depending on the size of article, secured to either the up-

permost strip 36 or both strips 36 and 38. The use of several strips 36 and 38, therefore, provides a fine degree of volume control to closely conform the size of the bag to that of the article being packaged therein. In other words, closure flap 28 can be tightly folded over the top of article 40 and attached selectively to strip 36, or strips 36 and 38 to firmly retain the article in bag 10. Furthermore, as may be noted in the drawings, the portion of front wall 18 beneath the closure fold line 27 will oftentimes form part of closure flap 28, especially when packaging smaller articles 40. The closure flap in the region beneath fold line 27, therefore, will frequently be double ply in thickness.

FIGS. 4 and 5 illustrate a convenient method of dispensing bags 10 in the form of a roll 44 preferably including a hollow cylindrical core member (not visible) on which the bags are wound. Of particular advantage is that the adhesive strips 36 and 38 afford a convenient means to continuously and firmly tack each bag 10 to the one directly therebeneath. Roll 44, therefore, has no tendency to unravel or "telescope". In other words, roll 44 is of a firm, not easily disarranged nature such that bags 10 remain in register along the ends 48 and 50 thereof and, in addition, remain tightly wound on roll 44 through period of prolonged storage and use.

Thus, as each bag is dispensed individually from roll 44, the remainder of unused portion of the roll is left fully intact. Roll 44, therefore, remains tightly bound and neat until the last bag is dispensed. Also if desired a protective storage or dispensing carton need not be provided for packaging roll 44. That is, regardless of the provision of such a protective carton, adhesive strips 36 and 38 remain "covered" and therefore "fresh" and protected in roll 44 at all times up until actual removal of the bag therefrom; and when removed, strips 36 and 38 are so located as to not interfere with loading or filling the bag such that contamination of the adhesive is easily prevented with minimum care of the user.

In view of the aforesaid, as an innovation, a satisfactory enclosure for commercially distributing roll 44 might include, for example, a polymeric film envelope 52 including a "stapled-on" paper header 54 for placement of advertising legends, as is illustrated in FIG. 6. After purchase, if desired, roll 44 can be removed from envelope 52 and conveniently stored in a drawer or cupboard during the period in which it is being used-up.

Yet additional advantages of the invention relate to the strategic placement of the uppermost adhesive strip 36 a certain spaced distance X from free edge 26 of front wall 18 (see FIG. 1). By so arranging the uppermost strip, the user of bag 10 is urged to tightly fold closure flap 28 over opening 30 in order to close bag 10; that is, the closure flap must be pulled down sufficiently tight so that the same reaches and can be attached to at least the uppermost strip 36. Thus, the full functional benefit of the maximum air tightness available of the resultant closure can be compelled of the user, even though the latter, for example, is unfamiliar with the correct operation thereof. To this end X represents a spacing desirably in the range of approximately 0.5 Y to 2 Y and is most optimally

greater than about 1.0 Y, wherein Y represents the height of closure flap 28. Also, as can be best noted from FIG. 3, the provision of a spacing X in the optimum range, 1.0 Y or greater, places the closure fold line 27 at a region below edge 26, thereby additionally adding to the air tightness of the closure.

The preferred cooperative spacing Z between strips 36 and 38, in turn, is at least approximately 0.25 Y, and most desirably is in a range of from about 0.25 Y to about 1.0 Y.

While certain representative embodiments and details have been shown for the purpose of illustrating the invention, it will be apparent to those skilled in the art that various changes and modifications can be made therein without departing from the spirit and scope of the invention.

Accordingly, what is claimed is:

1. A strip of household bags comprised of polymeric film material and each including opposed first and second walls, said second wall including an extension beyond said first wall at a region of said bag to provide an offset flap portion, at least a portion of the edge of said first wall positioned adjacent said flap portion being free of said second wall to provide an opening into said bag, the exterior face of said first wall including a plurality of separate pressure adhesive strip areas cooperable with said flap portion for closing said opening, said pressure adhesive strip areas being located at varied space distances from said flap portion, whereby said flap portion by being attached selectively to one or more of the pressure adhesive strip areas controllably adjusts the internal volume of said bag to better accommodate the size of the article to be packaged therein, said pressure adhesive strip areas extending substantially across the entire exterior face of said first walls in substantially parallel alignment with said edge portion, said bags being wound on a core in roll form, and with the layers of said roll being firmly and substantially continuously tacked together by said adhesive strip areas to provide a roll of substantially unitary character without tending to telescope, said bags being separable from each other by lines of weakness such that the bags can be individually dispensed from the roll.

2. A series of connected bags comprised of polymeric film material and wound on a roll, said bags individually including opposed first and second walls and offset flap portions integrally attached to said second walls, said first walls being free of said second walls at a region adjacent said flaps to provide openings into said bags, the exterior faces of said first walls including a plurality of spaced apart pressure adhesive strip areas extending substantially continuously and circumferentially on said roll and cooperable with said flap portions for closing said openings, said pressure adhesive strip areas being at all times covered on said roll by the first and second walls of the bags and serving to firmly and continuously tack said bags together to provide a roll of bags having minimal tendency to telescope or become unraveled, said bags being separated by lines of weakness such that the bags can be dispensed from the roll individually.

3. The roll of claim 2 wherein said roll is packaged in an outer covering comprising film material.

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