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2,494,965

COMPOSITE COMMODITY WRAPPER

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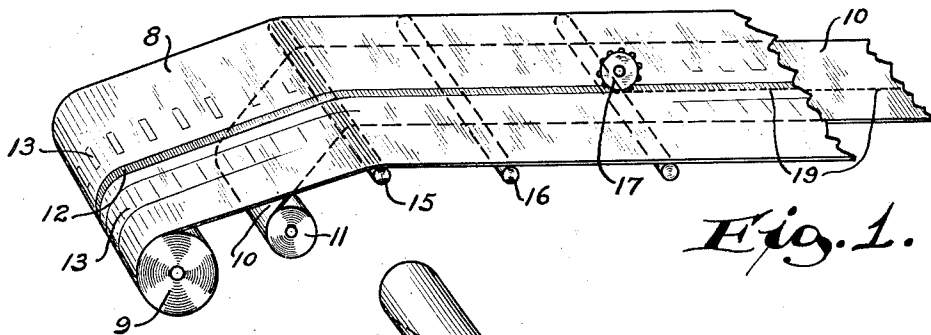


Fig. 1.

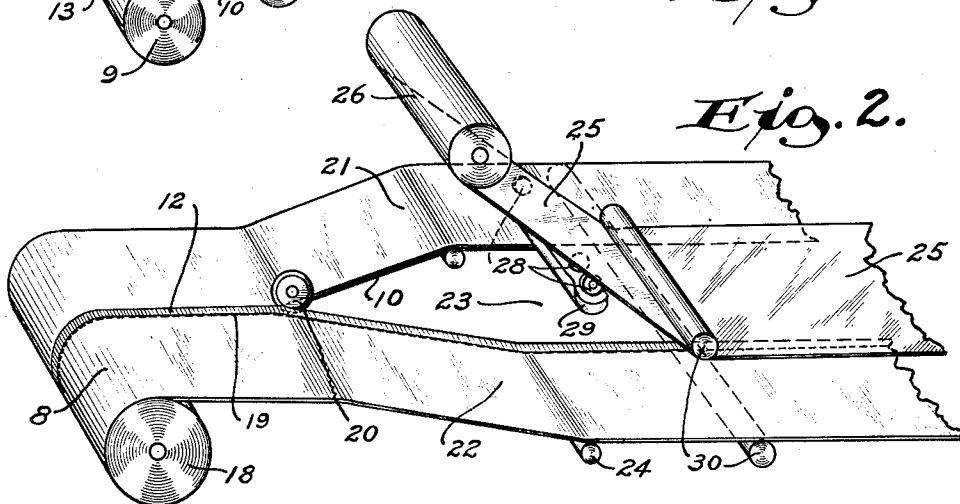


Fig. 2.

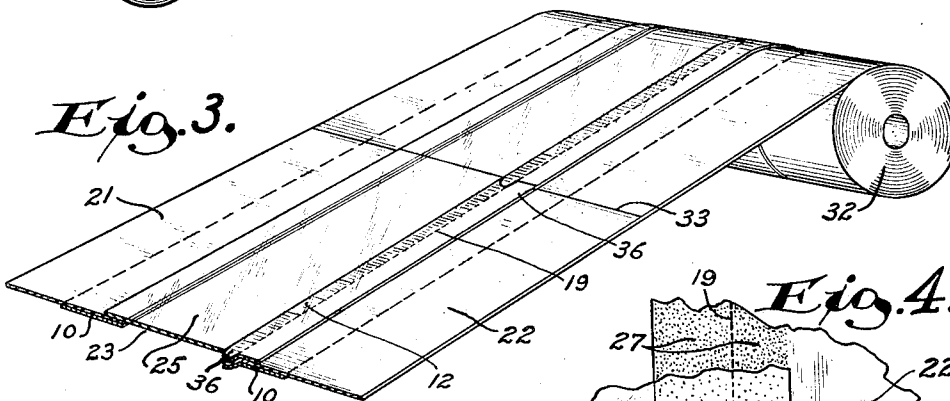


Fig. 3.

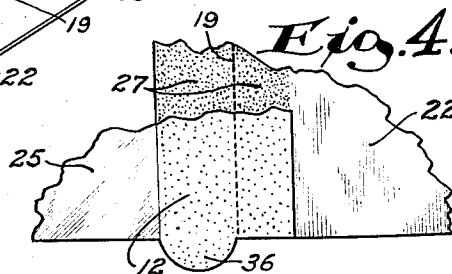


Fig. 4.

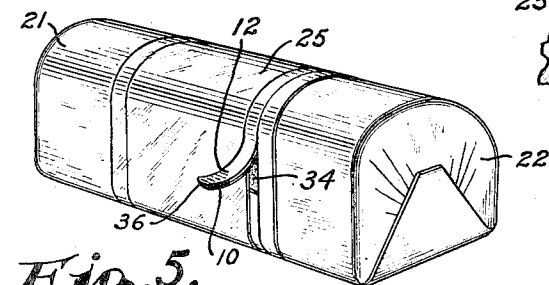


Fig. 5.

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COMPOSITE COMMODITY WRAPPER

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2 Claims. (Cl. 229-87)

1

The invention relates generally to improvements in commodity wrappers, and relates more especially to composite commodity wrappers of the general type shown in my copending application Serial No. 681,501, filed July 5, 1946, now Patent No. 2,476,564.

In my prior application above identified, I have proposed the provision of an improved wrapper for loaf-like commodity such as bread, comprising a unitary flexible wrapper sheet snugly embracing the loaf and desirably having a reinforcing strip encircling the commodity, and in which the tubular wrapper is separable by means of a tear strip into cup-shaped sections along one edge of the reinforcing strip, the latter being carried by the brim of one of the separated sections and ultimately cooperable with the other section to reclose the package. As shown in this previous application, the unitary outer wrapper is preferably composed of two opaque end portions and an intervening transparent portion adhesively connected along its opposite edges to the inner surfaces of the adjacent edges of the spaced end portions, and preferably these edges of the opaque portions of the outer wrapper are both reinforced by auxiliary opaque strips secured to their inner marginal portions and overlapping the adjacent edges of the intermediate transparent outer wrapper portion. A tear strip disposed adjacent to one of the edges of the transparent portion and encircling the loaf, is also provided for facilitating separation of the main wrapper into the cup-sections, and while this prior improved composite wrapper has proven highly satisfactory and successful in commercial use, it has been found rather costly and tedious to produce the wrappers in large quantities by the originally revealed methods.

It is therefore a primary object of my present invention to provide an improved composite wrapper comprising a main commodity confining sheet provided with a reinforcing band or strip and a tear strip adjoining the band, both encircling the confined commodity and in which the main wrapper is separable into cup-shaped sections which are subsequently cooperable with each other for package reclosing purposes.

Another object of this invention is to provide an improved wrapper for commodities which are normally removed from packages in small batches, which wrapper is simple in construction and may be conveniently opened and reclosed after each batch removal of confined material.

A further object of the invention is to provide an improved composite wrapper for loaf-like ma-

2

terials such as bread, wherein the final packages have transparent medial wrapper portions encircling the confined commodity, whereby the cost of such wrappers is minimized and production thereof is greatly facilitated and enhanced.

Still another object of my invention is to provide an improved bread wrapper whereby loaves of sliced bread or similar commodity may be effectively sealed and protected after each removal of one or more slices of the commodity, until the entire loaf has been dispensed with.

An additional object of my present invention is to provide an improved window wrapper having a tear strip for facilitating opening of packages enwrapped therein, whereby the individual wrappers may be produced automatically and in rapid succession at moderate cost and without wasting stock.

These as well as other objects and advantages of the invention should be apparent from the following detailed description.

A clear conception of the character of the improved composite commodity wrapper for bread loaves or the like, as well as the manner of producing the same, may be had by referring to the drawing accompanying and forming a part of this specification and in which like reference characters designate the same or similar parts in the various views.

Fig. 1 is a diagrammatic perspective view depicting the initial steps of my new composite wrapper stock production method;

Fig. 2 is a similarly diagrammatic perspective view illustrating the final steps of the same continuous wrapper stock production method;

Fig. 3 is another diagrammatic perspective view of a roll of the completed wrapper stock ready to be segregated into successive individual wrappers;

Fig. 4 is an enlarged fragment of one of the improved composite wrappers, showing the formation of the end of the tear strip; and

Fig. 5 is a perspective view of a sliced bread loaf package having the tear strip for opening the package, partially removed.

While the invention has been described herein as being advantageously applicable to bread wrappers having transparent medial portions, it is not intended to unnecessarily limit the scope or utility of the improvement by virtue of this restricted disclosure, since the improvement may also be employed to advantage as a tear strip wrapper for other commodities such as cigarettes or the like.

The present invention involves primarily an

3

improvement in composite wrappers each having a commodity encircling rip or tear strip adapted to segregate the finally applied wrapper into two complementary cup-shaped sections having reinforced brims or edges adapted to be subsequently telescoped over each other so as to reclose the initially opened package. To produce the improved wrapper I first firmly attach a reinforcing strip of suitable sheet material to one side of the medial portion of a sheet of wrapper stock and perforate the superimposed and united sheet and strip by a row or line of perforations extending thereacross. Then I sever the sheet into two complementary parts a slight distance laterally of the line of perforations to provide a tearing zone or strip between the edge of one of the severed parts and the row of perforations. I thereafter separate the severed parts to provide an intervening gap of suitable width, after which I span the gap and again interconnect the separated parts by attaching another sheet of suitable material to the opposite sides of the edges of the parts adjoining the gap.

In the preferred form, I utilize opaque rather heavy fibrous stock in the formation of the main wrapper sheet and reinforcing strip, and transparent relatively thin stock in the gap spanning sheet, and the production method may be carried on continuously with the aid of simple and relatively standard equipment by constructing the successive wrappers in the form of an uninterrupted travelling band by utilizing continuous advancing ribbons of stock in the formation of the main wrapper parts, the reinforcing strip, and the connecting sheet, and by cutting the band into individual final wrappers of any desired length. The several steps of producing the wrapper may be carried on rapidly and effectively in a manner illustrated in the drawing to produce composite wrappers for diverse purposes and at low cost without waste of stock.

Referring to the drawing, a main band or ribbon of relatively heavy and durable but flexible sheet material 8 may be constantly withdrawn from a supply roll 9 and caused to advance along a rectilinear horizontal path, and an auxiliary reinforcing strip, band or ribbon of similar material 10 may be likewise constantly withdrawn from another supply roll 11 and caused to advance along a rectilinear path simultaneously with and beneath and in contact with the main ribbon of material 8. The materials 8, 10 are preferably wax coated sulphite fibrous paper or other opaque sheet stock, adapted to be permanently united by applying heat and pressure thereto, and the main band material 8 is preferably provided on its upper or outer surface with a continuous longitudinally extending tear strip area 12 preferably distinctively colored red or otherwise so as to make it plainly visible. This colored area 12 and other indicia such as suitable advertising matter 13, may be printed or otherwise applied to the outer surface of the material 8 prior to formation of the supply roll 9, see Fig. 1.

The taut superimposed and advancing ribbons of heat sealable material 8, 10 are caused to travel over a heating roller 15 where the heat applied to the contacting sheets causes the adjoining surfaces to become firmly attached to each other, thus providing a relatively strong and durable reinforcing strip 10 on the medial portion of the lower or inner surface of the main wrapper sheet 8. The advancing heat united ribbons are subsequently caused to travel over a cooling roller

4

16 in order to set the wax adhesive, after which the composite ribbon is transported past a perforator 17 which applies a row or continuous line of perforations 19 to the sheet materials 8, 10 along one edge of the colored tear strip area 12, as clearly shown in Fig. 1. The initially combined and perforated compound wrapper forming band may then be wound up to provide a supply roll 18 (Fig. 2), and this roll may thereafter be removed from the heat sealing and perforating equipment for ultimate application to the final fabricating mechanism.

During final fabrication of the wrappers, the composite band may be constantly withdrawn from a supply roll 18 and subjected to the shearing action of a revolving knife 20 coacting with the edge of the tear strip area 12 remote from the row of perforations 19, and the two parts 21, 22 resulting from this severing operation are separated or spread apart to produce a gap 23 while travelling over rollers 24 in a horizontal plane, see Fig. 2. A third ribbon of sheet material 25 is thereafter constantly withdrawn from a supply roll 26 located above the advancing parts 21, 22, and is transported along and over the gap 23 with its opposite side edges overlying the adjacent edges of the complementary wrapper parts 21, 22 and this intermediate ribbon is preferably formed of relatively thin and flexible transparent sheet material such as regenerated cellulose or the like. However, before this intervening ribbon of material 25 is brought in contact with the ribbon parts 21, 22, it is supplied along its underside with strips 27 of adhesive (Fig. 4) such as glue, by means of three laterally spaced rollers 28 cooperating with a glue pot 29, and these adhesive areas or strips are pressed into snug engagement with the tear strip area 12 and with other outer areas beneath the overlapping edge portions of the side and central ribbons, by means of pressure rollers 30.

The finally fabricated composite wrapper stock ribbon may thereafter be wound into rolls 32 as shown in Fig. 3, and the successive finished wrappers may be severed or otherwise removed from this roll 32 along transverse shear lines 33. Each of the completed composite wrappers may subsequently be applied in the usual manner, to commodity such as a sliced loaf of bread 34, as shown in Fig. 5, with the medial portion of the loaf snugly embraced by the outer transparent sheet of material 25 and by the tear strip area 12, and with the end or side parts 21, 22 of the main wrapper folded and sealed to form cup-shaped enclosures likewise snugly embracing the opposite ends of the loaf 34. The tear strip area 12 of each wrapper may be provided with a slightly protruding end tab 36 as illustrated in Figs. 3 and 4, which normally lie flush with the outer wrapper surfaces, and when it is desired to open the package, it is only necessary to insert a finger or thumb nail beneath this tear strip tab 36 and to thereafter tear or zip the strip 12 along the row of perforations 19 and through the material 25 all around the loaf. This removal of the tear strip 12 will separate the wrapper parts 21, 25 and the complementary part 22 into two reversely directed or opposed cup-shaped sections each of which is internally reinforced by a part of the original strip 10, and which cup sections are adapted to be subsequently telescopically connected or engaged so as to reclose the package.

One or more of the bread slices may then be removed from the loaf 34, or the entire loaf may

be removed and consumed; but if only partial removal is effected, the package may be neatly and thoroughly reclosed by merely replacing the two end caps formed by the previous division of the wrapper by removal of the strip 12. During such reclosing of the package, the reenforced brim of the shorter cup may be telescoped over the free end of the center strip 25, thus again concealing or enclosing the remaining commodity and maintaining it in a clean and wholesome protected condition ready for convenient subsequent access and removal. The bread which is confined within the cup-shaped sections will effectively retain these sections in shape during the reclosing operation, and the reclosed package will assume various lengths depending upon the number of slices removed.

From the foregoing specific description of the invention it will be apparent that I have provided a simplified wrapper, and also an improved method of commercially producing the wrappers accurately in rapid succession and at very moderate cost. The manufacture of these improved package reclosable wrappers is greatly expedited by initially attaching the reenforcing strip 10 to the inner surfaces of the main wrapper parts 21, 22 and by perforating the composite band before the parts 21, 22 are segregated, and by subsequently severing the main ribbon, spreading the parts 21, 22 and finally adhesively attaching the intervening sheet 25 to the exteriors of the main parts outwardly of the reenforced areas. The improvement also provides a tear strip 12 of triple thickness, certain plies of which are formed of strong fibrous sheet material, and which tear strip may be quickly torn from the package along a straight and narrow path completely encircling the commodity. The tabs 36 which facilitate manipulation of the tear strips 12, normally lie flush with the outer surface of the wrapper and preferably do not protrude therefrom in order to avoid possibility of having the strips accidentally torn during handling of the loaves, but the wax adhesive which normally holds the tabs 36 against the wrapper may be readily released by a finger or thumb nail. By constructing the successive improved wrappers in the form of a continuous band, rapid and accurate production is insured and waste of stock is entirely eliminated; and the improved method and the resulting product have both proven highly satisfactory and successful in the commercial production of the composite reclosable wrappers at very moderate cost.

The improved composite wrapper while being advantageously applicable to commodity such as sliced bread loaves, may obviously be applied to other commodities adapted to be removed piecemeal; and while these improved wrappers may be composed of two end sections 21, 22 interconnected by an intervening transparent or window section 25 as shown and described herein, the use of such transparent section or strip is not essential and all or any of the sections may be formed of either opaque or transparent material, depending upon the nature of the commodity which is to be concealed within the final wrappers.

It should be understood that it is not desired to limit the present invention to the disclosed details of construction of the fabricating apparatus and composite wrappers, described and disclosed herein, for various modifications within the scope of the appended claims may occur to persons skilled in the art; and it is also contemplated that specific descriptive terms used herein be given the broadest interpretation consistent with the disclosure.

I claim:

1. A flexible wrapper for sliced bread loaves or the like, comprising, a composite flexible sheet snugly embracing and enclosing a bread loaf and being composed of at least two edge to edge overlapping sheets one of which consists of stiffer flexible material than the other and the adjacent overlapped edges of which surround the loaf and are secured together, and a reinforcing strip of flexible sheet material overlapping and being secured to the overlapped edges of the sheets to provide a three ply region extending along the overlapped sheet portions, said stiffer sheet and said reinforcing strip having juxtaposed weakened lines extending therealong to provide a tear strip within said region and which is progressively removable to gain access to the loaf by separating the wrapper into two complementary flexible cup-shaped sections, and the edge of the stiffer sheet section being further stiffened by the reinforcing strip so as to facilitate telescopic reclosing and sealing of the package.

2. A flexible wrapper for sliced bread loaves or the like, comprising, a composite flexible sheet snugly embracing and enclosing a bread loaf and being composed of at least two edge to edge overlapping sheets one of which consists of stiffer flexible material than the other and the adjacent overlapped edges of which surround the loaf and are adhesively secured together, and a reinforcing strip of flexible sheet material overlapping and being adhesively secured to the overlapped edges of the sheets to provide a three ply region extending along the overlapped sheet portions, said stiffer sheet and said reinforcing strip having juxtaposed perforated weakened lines extending therealong to provide a tear strip within said region at the side of the weakened line nearest the more flexible sheet and which is progressively removable to gain access to the loaf by separating the wrapper into two complementary flexible cup-shaped sections, and the edge of the stiffer sheet section being further stiffened by the reinforcing strip so as to facilitate telescopic reclosing and sealing of the package.

SHY ROSEN.

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