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TEAR STRIP, AND WRAPPER AND PACKAGE

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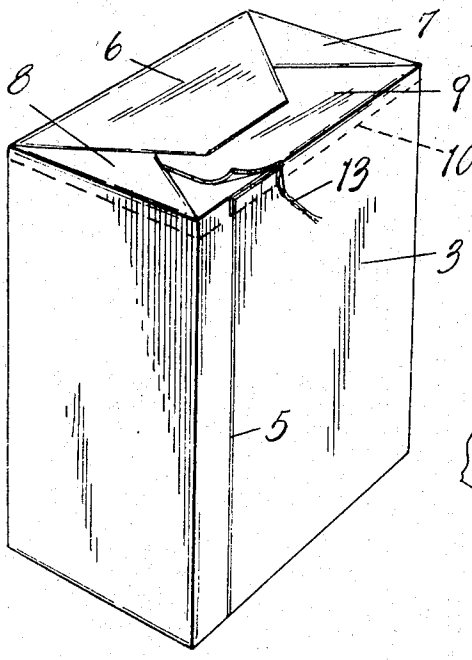


FIG. 1

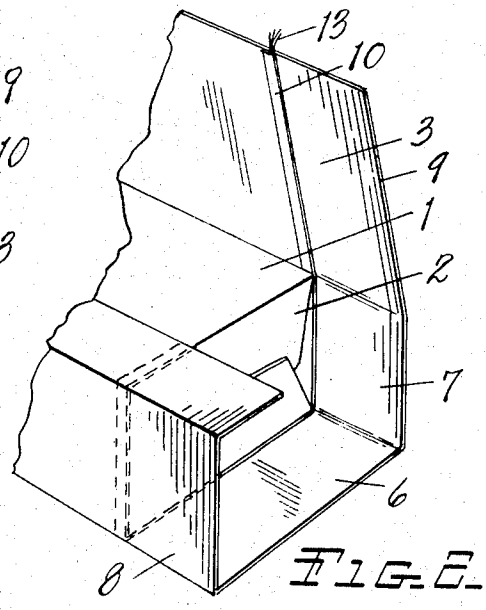


FIG. 2

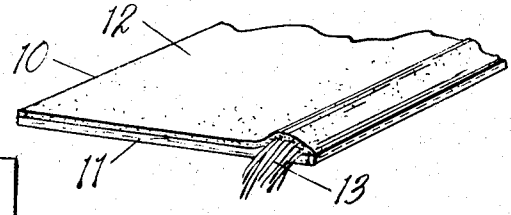


FIG. 4

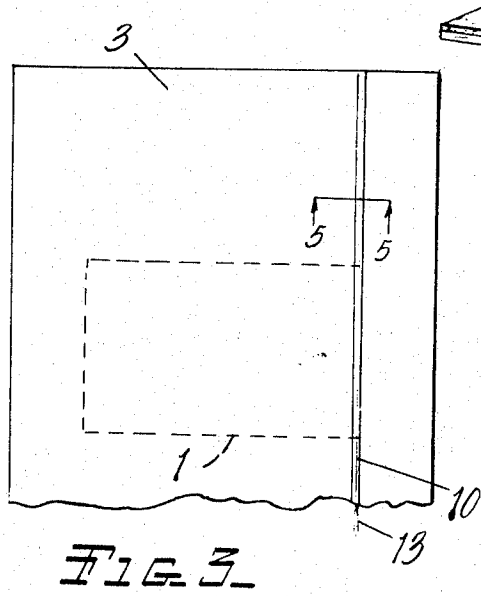


FIG. 3

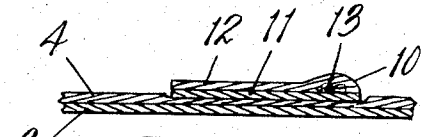


FIG. 5

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TEAR STRIP, AND WRAPPER AND PACKAGE

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3 Claims. (Cl. 229—51)

This invention relates to a wrapped carton or package and a wrapper sheet therefor provided with a tear strip and to a novel tear strip.

The main objects of this invention are:

First, to provide a wrapped package provided with a tear strip having a cutting strand which is disposed relative to the body of the tear strip and the wrapper in its relation to the carton so that a portion of the wrapper defined by the cutting strand may be severed from the remainder of the wrapper without tearing or otherwise mutilating the portion of the wrapper remaining on the carton.

Second, to provide a heat sealable thermoplastically coated wrapper with a tear strip having a heat sealable coating fusedly bonded to the coating of the wrapper, which bonding is not affected by temperatures required for heat sealing the wrapper upon a carton or other object.

Third, to provide a thermoplastically coated heat sealable wrapper with a tear strip bonded thereto and including a cutting strand in which the strand is so located and bonded to the tear strip so that the line of severance of the wrapper is at one edge of the tear strip which constitutes a reinforcing member for the wrapper sheet.

Fourth, to provide a wrapper sheet having the above mentioned characteristics and advantages which may be wrapped upon a carton or other article by methods and by apparatus now extensively used in wrapping objects with thermoplastically coated heat sealed wrappers without danger of displacement or loosening of the tear strip or its cutting strand.

Objects relating to details and economies of the invention will appear from the description to follow. The invention is pointed out in the claims.

A structure which embodies the features of the invention is clearly illustrated in the accompanying drawing, in which:

Fig. 1 is a perspective view of a package embodying this invention, the cutting strand being partially withdrawn.

Fig. 2 is a fragmentary perspective view illustrating the relation of the tear strip to the wrapper, and the relation of the wrapper and tear strip to the carton.

Fig. 3 is a fragmentary plan view of the inner side of the wrapper, the parts being shown conventionally.

Fig. 4 is a fragmentary perspective view of the outer side of the tear strip greatly enlarged.

Fig. 5 is an enlarged fragmentary view in section on a line corresponding to line 5—5 of Fig. 3.

It is old to provide wrappers with cutting strands and so-called tear strips, but the tear strip, wrapper and package of this invention have advantages which it is believed are not possessed by any previous structures.

The embodiment illustrated in the accompanying drawing is somewhat conventionalized, and it will be appreciated that it is not practical to illustrate the parts in proportions owing to the fact that some of the dimensions are so small.

In the accompanying drawing, 1 represents a carton provided with closure flaps 2 at one end thereof. The wrapper sheet 3 is a suitable grade of paper and is provided with a thermoplastic heat sealable coating 4 on its inner side. This may desirably be of paraffin or blends of paraffin and resin.

The sheet is wrapped around the carton so that it, in effect, provides wall portions embracing the walls of the carton, the edge portions of the wrapper being overlapped at 5, coating 4 serving a double purpose of making the wrapper sheet moisture resistant and also providing a sealing means. The end portions 6, 7, 8 and 9 of the wrapper sheet are folded into overlapping relation on the end walls and over the closure members 2 of the carton and heat sealed together. This is an old procedure.

The tear strip designated generally by the numeral 10 comprises a body strip 11 of paper having a thermoplastic coating 12 on the outer side thereof with a melting point substantially exceeding the melting point of the coating of the wrapper sheet. The cutting strand 13 may desirably be of glass fiber or some synthetic filaments, although thread of a desired strength or quality may be used.

This cutting strand is disposed at one edge of the body strip and is bonded thereto by the coating 12, which overlaps or embraces the cutting strand. The tear strip coating is bonded to the coating of the wrapper sheet in properly positioned relation thereto so that the cutting strand is at the juncture of the end portions of the wrapper with the side wall embracing portions thereof.

The tear strip constitutes a reinforcing member for the side wall portions, thereby preventing the tearing or mutilation of the side wall portions when the end of the wrapper is completely removed or severed from the side wall portions of the wrapper. The coating 12 for the tear strip body 11 being of a different melting or fusing point than the coating of the wrapper sheet, the cutting strand is not freed or displaced during wrapping operations, and it is therefore in required relation to outline or define the portion of the wrapper which it is desired to remove when the package is opened.

The tear strip can be quickly and easily applied to the wrapper sheet which is commonly web form, the tear strip being readily adhered to the coated side of the web.

This invention has been illustrated and described in a highly practical embodiment thereof. No attempt has been made to illustrate or describe the various embodiments or adaptations which are contemplated as it is believed that this disclosure will enable those skilled in the art to adapt or embody this invention as may be desired.

Having thus described the invention, what is claimed as new and is desired to be secured by Letters Patent is:

1. A package comprising a carton having closure flaps at one end, and a wrapper sheet therefor having a heat sealable thermoplastic coating on its inner side and having side wall embracing portions, and end wall embracing portions which are disposed in overlapping and heat sealed relation over said closure flaps, and a tear strip disposed on and bonded to the inner side of said wrapper sheet and comprising a body strip having a thermoplastic coating on its outer side having a melting point substantially different from that of the coating of said wrapper sheet and thermoplastically bonded thereto, and a cutting strand disposed at one edge of the body strip and bonded thereto by its said coating, said tear strip being disposed on the wrapper sheet with its cutting strand positioned at the juncture of said side and end wall portions of the wrapper sheet so that the tear strip body constitutes a continuous reinforcing element for

the side wall portions of the wrapper at the severance zone.

2. A package comprising a carton, and a wrapper sheet therefor having a heat sealable thermoplastic coating on its inner side, and a tear strip disposed on and bonded to the inner side of said wrapper sheet and comprising a body strip having a thermoplastic coating on its outer side bonded to the coating of the wrapper sheet, and a cutting strand disposed at one edge of the body strip and bonded thereto by its said coating, said tear strip being disposed on the wrapper sheet with its cutting strand positioned at the juncture of said side and end wall portions of the wrapper sheet so that the tear strip body constitutes a continuous reinforcing element for the side wall portions of the wrapper at the severance zone.

3. A package comprising a carton and a wrapper sheet therearound having a heat sealable thermoplastic coating on its inner side, and a tear strip disposed on and bonded to the inner side of said wrapper sheet and comprising a body strip having a thermoplastic coating

on its outer side having a melting point substantially different from that of the coating of said wrapper sheet and thermoplastically bonded thereto, and a cutting strand disposed at one edge of the body strip and bonded thereto by its said coating, said tear strip being disposed on the wrapper sheet with its cutting strand defining a portion of the wrapper to be severed and so that the tear strip body constitutes a continuous reinforcing element for the other portion of the wrapper at the severance zone.

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