A strippable or peelable tape having a gummed or adhesive surface portion to adapt the tape for application to the meeting edges of carton or box walls or flaps for securing purposes wherein the tape is multiplied and there is applied to the outer gummed surface of one ply of the tape, along its longitudinal median, a string or filament which will overlie the crevice between the flaps or wall edges of the box or carton wherein, when the tape is stripped from the carton or box wall or flap joints, the adhesive and paper residue over the crevice will be ruptured and there will be no bridge or unbroken layer of residue over the crevice. Between the adjacent faces of a pair of plies of the tape which are held together by a complete adhesive coating there are reinforcing filaments embedded in the adhesive coating, many of which filaments extend transversely of the tape from margin to margin.

FIELD OF THE INVENTION

The tape of the present invention, applicable to box flaps or walls over their crevices, will strip or peel free of the crevices without leaving a bridge or unbroken layer of residue over the crevices, the tape being applied to carton flaps or walls in the ordinary manner but being easily strippable therefrom so that it is unnecessary to insert an instrument to rupture the overlying layer of residue and also eliminating the possibility of thereby damaging the contents of the box or carton or injuring the operator.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

The strippable, adhesive coated layered, reinforced tape illustrated in the drawing is designated generally by the numeral 8 and is of unlimited extent and is customarily provided in roll form. One feature of the invention is that the components of the improved reinforced strippable tape are such that a string or filament 9, later to be described more in detail and applied along the longitudinal median of the gummed surface of the tape, is actually partially imbedded whereby it does not substantially increase the bulk of the tape, permitting true winding of the same in roll form with the rolls being of standard length and diameter to fit the capacities of available standard tape dispensers, manually operated or mechanized.

The components of the improved strippable tape are such that the string or filament applied along the longitudinal median of the exposed gummed surface is actually partially imbedded whereby it does not substantially increase the bulk of the tape, permitting true winding of the same in roll form with the rolls being of standard length and diameter to fit the capacities of available standard tape dispensers, manually operated or mechanized.

The improved strippable tape of the present invention, because of the string or filament applied along the longitudinal median of the gummed surface of the tape, will, when stripped from the carton walls or flaps, eliminate an overlying or bridging layer of residue over the crevices between the box walls or flaps and further eliminates the need for using a knife or tool to slit or rupture the bridging layer of residue. The two superimposeddraft paper plies of the tape are secured together by an intermediate, complete coating of adhesive in which are embedded reinforcing filaments which extend back and forth from margin to margin.

1. 3,504,844 COMBINATION WITH A CARTON OF A COMPOSITE STRIPPEABLE TAPE AND TEAR STRING APPLIED TO MEETING EDGES OF CARTON WALLS

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1 Claim

ABSTRACT OF THE DISCLOSURE

A strippable or peelable tape having a gummed or adhesive surface portion to adapt the tape for application to the meeting edges of carton or box walls or flaps for securing purposes wherein the tape is multiplied and there is applied to the outer gummed surface of one ply of the tape, along its longitudinal median, a string or filament which will overlie the crevice between the flaps or wall edges of the box or carton whereby, when the tape is stripped from the carton or box wall or flap joints, the adhesive and paper residue over the crevice will be ruptured and there will be no bridge or unbroken layer of residue over the crevice. Between the adjacent faces of a pair of plies of the tape which are held together by a complete adhesive coating there are reinforcing filaments embedded in the adhesive coating, many of which filaments extend transversely of the tape from margin to margin.

BACKGROUND OF THE INVENTION

Field of the invention

The field of the present invention is that of a carton.
As shown in the enlarged cross-sectional view, FIG. 2, the upper layer or ply 11 of the tape is of standard Kraft paper stock or other suitable sheet material. Underneath the top layer or ply 11 and secured thereto is a complete adhesive or laminant layer 12 is a layer or ply 13 of strippable paper material or the like having a low internal bond. Imbedded in the interposed laminant or adhesive layer 12 are series of reinforcing filaments, preferably of a glass-like material, of which the numerals 14 (see FIGS. 3 and 4) designate those which extend transversely of the tape from margin to margin, either angularly or otherwise, and they may, if desired, cross one another. Also, and this is optional, there may be series of longitudinal reinforcing filaments 15. The exposed or lowermost face of the low internal bond layer 13 carries a coating of suitable adhesive 16 of a type conventional in the gummed tape art. Partially imbedded in this adhesive layer 16 and extending along the longitudinal median of the ply or layer 13 is the reinforcing string or filament 9 previously mentioned.

In the use of the improved reinforced strippable or peelable tape 8, it is applied in the usual manner to the adjacent edge portions of the box flaps or walls 10 in the manner best shown in FIG. 1, with the adhesive layer 16 lowermost and adhering to wall portions of the carton. The tape is applied so that the longitudinal median of the tape coincides with the mid portion of the box joint or crevice 17. The lower gummed face portions of the tape layer 13-16 extend a substantial distance laterally on both sides of the carton crevice 17 and adhere to the stock of the carton flap or walls laterally of the crevice or seam 17. When it is desired to strip or peel the tape 8 from the box or carton walls, it is merely necessary to engage the end of the tape together with string 9 and to pull both outwardly and progressively forwardly to thereby completely strip the securing tape from the carton joint to permit easy opening of the box walls or flaps originally sealed by the tape. The adhesive layer 16 and some of the paper stock will adhere to and remain as a residue on the box flaps, as indicated by the numerals 18 in FIG. 1, but that portion of the residue which would normally bridge the crevice 17 will be longitudinally severed or separated along the box crevice by the action of the imbedded longitudinal string or filament 9 during the stripping operation. By providing a clean crevice or severed bridge, access to the box walls or flaps to disengage and open the latter without resorting to the use of tools of any nature, or other operational steps, is freely afforded.

From the foregoing description it will be evident that the improved reinforced strippable or peelable tape can be applied to box or carton walls in the usual manner, but when it is stripped therefrom, because of the im-bedded string along the longitudinal median of the gummed layer or ply 13-16, the residue over the carton or box crevice will be broken or severed. The two paper material plies of the tape are held together by an interposed complete adhesive ply 13 in which are compactly imbedded reinforcing filaments which traverse the tape from margin to margin and add to its tensile strength without adding substantially to the bulk thereof. As the residue severing string 9 is partially imbedded, the bulk of the multiply tape is maintained at a minimum to permit its being wound truly in compact roll form which can be maintained in the standard length and diameter required to fit the capacities of available standard tape dispensers, manually operated or mechanized. The improved reinforced strippable tape, besides being of simple and inexpensive construction, is easy to apply and remove and is otherwise well adapted for the purposes described.

What is claimed as the invention is:

1. The combination with a carton having a pair of complementary, stiff, co-planar walls with free edges thereof in adjacency and providing a rectilinear crevice therebetween, of a strippable adhesive coated, multi-layered tape applied flatly to said carton complementary walls, said tape including a pair of plies of opaque paper stock completely united in superimposed relation by an interposed, co-extensive adhesive layer, reinforcing filaments imbedded in said interposed adhesive layer and extending transversely of the tape from margin to margin, the lowermost layer of the tape being strippable paper stock and carrying a layer of adhesive on its exposed face, and an elongated unbroken tear string extending along the longitudinal median of the last-mentioned adhesive layer, the tape being applied to said carton complementary walls in spanning relation to the crevice with said tear string registering with the crevice throughout the length of the latter and the last-mentioned adhesive layer being adhered to co-planar surface portions of said carton walls laterally of the crevice so that when the tape is subjected to a stripping action relative to the carton walls the tear string will longitudinally sever the fibrous residue bridge over said crevice.

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