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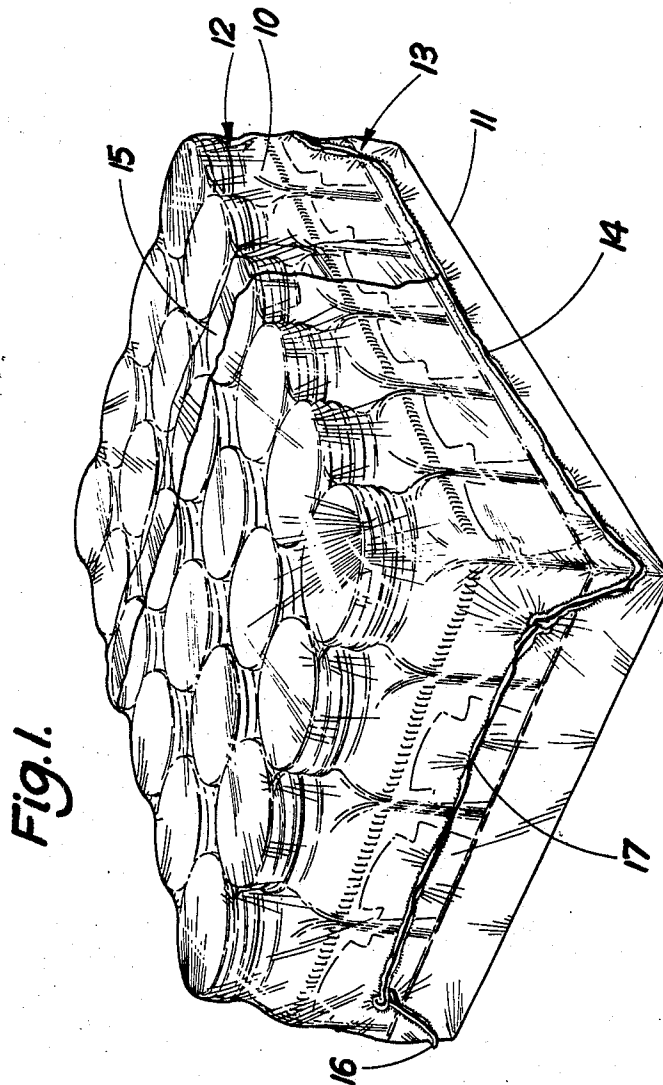
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3,488,913

METHOD OF PRODUCING SHRINK WRAPPED PACKAGES

Original Filed Nov. 9, 1966

2 Sheets-Sheet 1



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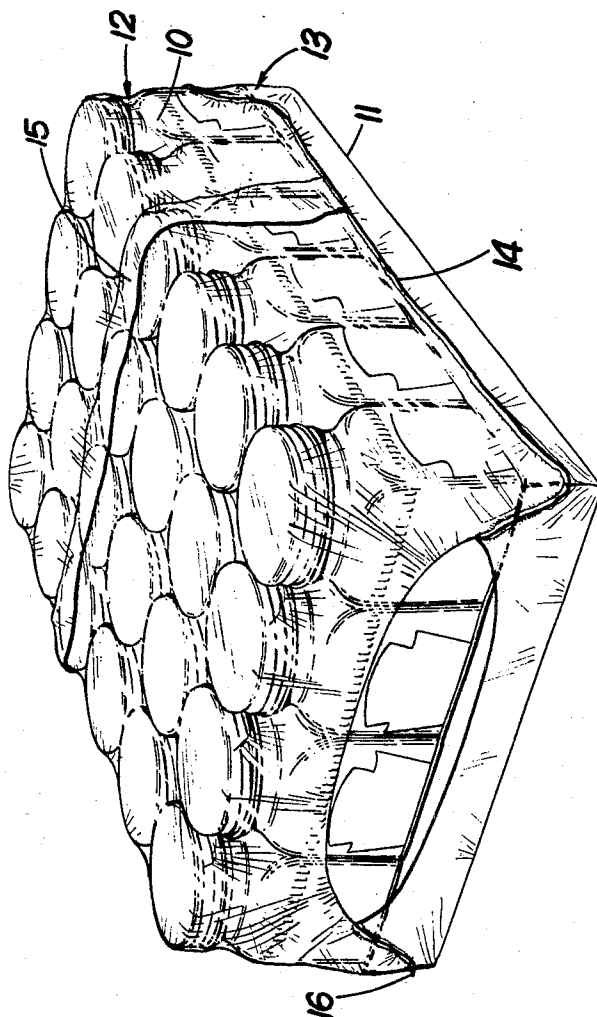
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Fig. 2.



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METHOD OF PRODUCING SHRINK WRAPPED PACKAGES

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Original application Nov. 9, 1966, Ser. No. 593,181.

Divided and this application Feb. 15, 1968, Ser. No. 714,154

Int. Cl. B65b 11/50, 53/02

U.S. Cl. 53—30

4 Claims

ABSTRACT OF THE DISCLOSURE

The disclosure of this invention pertains to a shrink wrapped package and the method of forming the same in which adjacent free end portions of the wrapping overlapped and are unattached to one another to provide an area into which the fingers of the handler can be inserted between the overlapped portion and the interior of the package to facilitate pulling the wrapping clear of the contents.

This is a division of application Ser. No. 593,181 filed Nov. 9, 1966.

The invention relates to shrink wrapped packages. Heretofore it has been usual for the wrapping which is shrunk around the contents of such a package to be continuous and uninterrupted, for example in the form of a continuous all enveloping wrapper or in the form of a continuous encircling sleeve. With such arrangements however, the wrapped package is difficult to open and it is an object of the invention to help overcome this drawback.

According to the invention a shrink wrapped package is characterised in that the wrapping around the contents of the package is interrupted to provide a portion enabling the fingers of a handler to be inserted between it and the interior of the package whereby the wrapping may be pulled clear of the contents.

The wrapping may be so assembled on the contents of the package as to provide unattached overlapping portions between which the fingers may be introduced.

The said interruption or overlapping portions of the wrapping, may extend around a part only of the periphery of the package.

A part of the wrapping adjacent the interruption may be weakened so that the wrapping may be readily torn by pulling the wrapping at the location of the interruption.

In the case where the wrapped package is substantially rectangular in shape the aforesaid interruption or overlapping portions of the wrapping may extend across one of the larger area faces of the package and may also extend at least partly across the bordering side faces of the package.

The contents of the package may be arranged in a tray and said wrapping may extend around the tray and its contents.

The wrapping is preferably formed from a shrinkable thermoplastics material such as polythene.

A method of producing a shrink wrapped package as set out above consists in drawing against one side of the contents of the package a length of material so that two stretches of the material extend respectively across two opposed other sides of the contents, at least one of which stretches comprises two strips having unattached overlapping marginal portions, bringing the stretches together at the side of the contents at the opposite end thereof to said one side, and securing them together, and which stretches

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of material are of such width as to have portions projecting beyond each of the remaining opposed sides of the contents, bringing together the projecting portions at each of the last mentioned sides and securing them together, and shrinking the wrapping material onto the contents of the package, leaving the aforementioned overlapping portions unattached.

The aforesaid two stretches of material may be separately formed and joined together across their width to provide said length of material.

In the case where the material is a thermoplastics material the two stretches may be joined together by welding and in any of the methods referred to the parts of the wrapping which are secured together may be secured together by welding.

The following is a more detailed description of two forms of package according to the invention, reference being made to the accompanying drawing in which FIGURES 1 and 2 are perspective views of two alternative packages.

The packages illustrated are suitable for supply to a multiple store, and the contents comprise twenty-four glass, screw-topped jars 10 close packed in four rows of six jars in a rectangular cardboard or plastics tray 11.

In each of FIGURES 1 and 2 the wrapping comprises a length of transparent plastics material, such as polythene, formed from an upper stretch 12 and a lower stretch 13 joined together by a line of weld 14. The length of material is of greater width than the tray of jars. The upper, 12, of the two stretches comprises two strips having overlapping marginal portions extending transversely to the join 14, the overlap being indicated at 15.

The two joined stretches are drawn against the right-hand side of the tray of jars so that the upper and lower stretches 12 and 13 extend respectively across the top and bottom of the tray of jars. The two stretches 12 and 13 are brought together at the left-hand side of the tray of jars and are welded together to form a seam 16 extending longitudinally along the left-hand side of the tray 14 to form an open-ended package. The free edges of the two stretches 12 and 13 at each open end of the package are either brought together and welded to form a seam 17, so closing the package as shown in FIGURE 1, or are left open at the ends, as shown in FIGURE 2.

The wrapped tray of jars is then subjected to heat treatment in known manner to shrink the polythene wrapping tightly around the tray of jars, and in the case where the ends are initially left open the heat treatment results in the shrinking of the wrapping only partly closing the ends.

It will be seen that the shrinking of the wrapping on to the tray of jars will serve to retain the jars firmly in the tray and will form a compact pack, but that when it is required to break open the package, it is only necessary to slip the fingers between the overlapping portions 15 of the upper stretch 12 and to tear or stretch back one or both parts of the upper stretch 12 so as to open the package. When the package has been opened in this manner the jars may be retained in the tray for display. To assist in the tearing open of the package a part of the wrapping adjacent the overlapping portions may, as mentioned earlier, be weakened. For example, the wrapping may be weakened along two lines extending at right angles to the overlapping portions 15 and/or opposite ends thereof.

In the arrangements shown only the upper stretch 12 comprises two strips having overlapping marginal portions, but the lower stretch 13 may also be so formed if required. This is particularly suitable when the contents of the package are such that it is immaterial which way up the package is when it is opened.

Instead of the two strips having overlapping marginal portions, the two strips may meet edge to edge or may

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even be spaced apart to provide a slit into which the fingers may be inserted.

It will be appreciated that the contents of the package may be of many different kinds and the overlapping portions of the wrapping may be located in any convenient position on the package.

The thermoplastic material from which the wrapping is formed may be transparent, as shown, or may be coloured.

I claim:

1. A method of producing an easy-openable shrink wrapped package comprising the steps of: drawing against one side of the contents of the package a length of material so that two stretches of the material extend respectively across two opposed other sides of the contents, at least one of the stretches being formed by overlapping two strips of material so as to produce unattached marginal portions, bringing the stretches together at the side of the contents at the opposite end thereof to said one side, and securing them together, and which stretches of material are of such width as to have projections projecting beyond each of the remaining opposed sides of the contents, and shrinking the wrapping material onto the contents

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of the package, leaving the aforementioned overlapping portions unattached.

2. A method according to claim 1 and including the additional step of bringing together the projecting portions at each of said remaining opposed sides and securing them together.

3. A method according to claim 1 wherein the aforesaid two stretches of material are separately formed and joined together across their width to provide said length of material.

4. A method according to claim 1 wherein the material is a thermoplastics material and wherein the parts of the wrapping which are secured together are secured together by welding.

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TRAVIS S. McGEHEE, Primary Examiner

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