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2,608,341

FIBER CONTAINER WITH IMPROVED TEARING STRIP

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FIG. 1

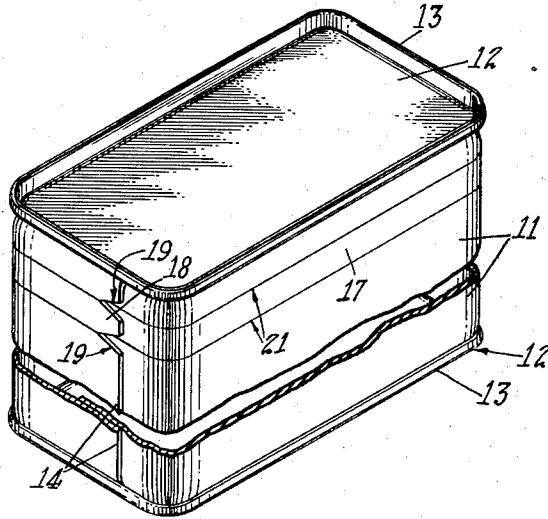


FIG. 2

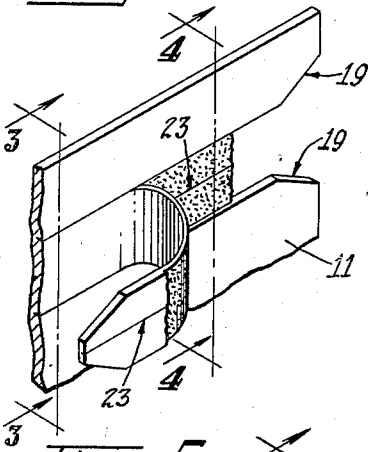


FIG. 3

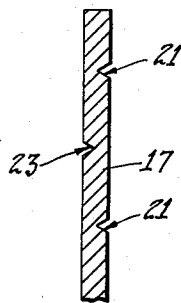


FIG. 4

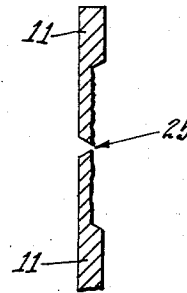


FIG. 5

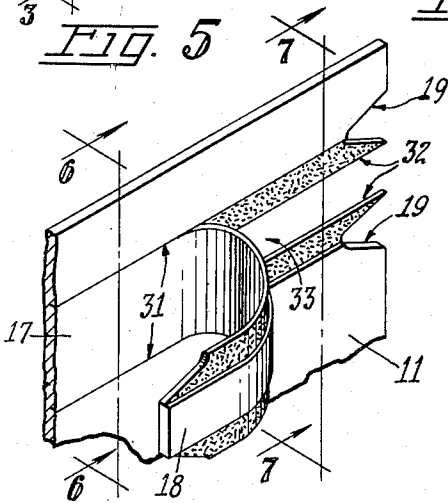


FIG. 6

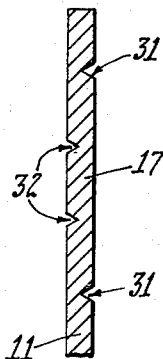
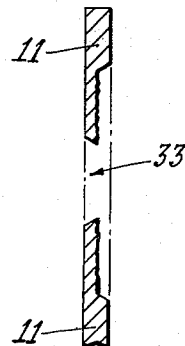


FIG. 7



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FIBER CONTAINER WITH IMPROVED
TEARING STRIP

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1 Claim. (Cl. 229-51)

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The present invention relates to containers having a body made of fibrous material for a variety of products including frozen food products and the like and has particular reference to an improved construction of tearing strip which facilitates opening the container for removal of its product.

An object of the invention is the provision of a container having a fibre body equipped with a tearing strip wherein the tearing strip is defined by score lines arranged in an improved and novel manner on both sides of the material of the body to facilitate splitting of the material between the score lines when the tearing strip is removed to open the container.

Another object is the provision of such a container wherein the score lines on one side of the material of the body extends into a tongue provided for removing the tearing strip, so that splitting of the material from the outer toward the inner score lines is facilitated.

A further object is the provision of such a container wherein at least one score line is located on one side of the wall of the body with the other score lines on the opposite side so that during removal of the tearing strip the body wall is divided by a mere slit extending along the one score line, the slit being so small that it prevents escape of the contents of the container during removal of the tearing strip.

Still another object of the invention is the provision of a tearing strip in a fibre container body near an end thereof, which strip is defined by two spaced parallel score lines cut into one surface of the body wall through half the thickness thereof and which score lines are cooperatively assisted by at least one score line cut into the opposite surface of the fibre wall and in spaced relation to said parallel score lines, so that the end portion of the container is severed by removal of said strip.

Numerous other objects and advantages of the invention will be apparent as it is better understood from the following description, which, taken in connection with the accompanying drawings, discloses a preferred embodiment thereof.

Referring to the drawings:

Figure 1 is a perspective view of a tearing strip container embodying the instant invention, with parts broken away;

Fig. 2 is an enlarged perspective view of a detailed portion of the container illustrated in Fig. 1 and showing the removal of the tearing strip;

Figs. 3 and 4 are enlarged sectional views taken

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substantially along the lines 3-3, 4-4 in Fig. 2, and showing the wall of the container before and after removal of the tearing strip;

Fig. 5 is a view similar to Fig. 2, and showing a modified form of the invention; and

Figs. 6 and 7 are views similar to Figs. 3 and 4, the views being taken substantially along the lines 6-6, 7-7 in Fig. 5.

As a preferred embodiment of the instant invention Figs. 1, 2, 3 and 4 of the drawings illustrate a rectangular shaped container for frozen food products and the like, the container comprising a tubular body 11 (Fig. 1) made of suitable paper board such as sulphate or sulphite boards, or combinations of these with ground wood pulp, and sheet metal end members 12 permanently secured to the body by suitable end seams 13. The body preferably is made from a single flat blank, folded to provide four side walls and rounded corners, the marginal edge portions of the blank being overlapped and permanently united by a suitable adhesive to form a lapped side seam 14.

In use, one end member 12 is secured to the body 11 and the resulting container is then filled with the product. After filling, the container is sealed by the attachment of its other end member 12 and the sealed container is then passed through a freezing process to freeze its contents.

Opening of the container to release its contents is effected by an improved removable tearing strip 17 which is formed in the body 11 and which extends completely therearound, preferably adjacent one of the end members 12 and terminating in a tongue 18 disposed adjacent the body side seam 14. This tongue is set off in the body by a pair of spaced V-shaped notches 19 which are cut from the body in the outer lapped portion of the side seam; the portion between the notches constituting the tongue.

The tearing strip 17 of the body 11 is defined by a pair of spaced and parallel score lines or weakened areas 21 which are cut or otherwise formed in the outer surface of the body and which extend into the material of the body for substantially one half of the thickness of the body wall, as best shown in Fig. 3. These score lines or weakened areas terminate preferably at the vertices of the notches 19 which set off the tongue 18 (see Fig. 1). On the opposite or inner surface of the body wall, the body 11 is formed with a single score line or weakened area 23 which preferably is spaced midway between the two outer score lines 21 (see Figs.

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2 and 3) and which extends completely around the body and longitudinally of the tongue 18 to its outer edge in parallelism with the score lines 21. This inner score line or weakened area 23 is cut or otherwise formed in the inner surface of the body and extends into the material of the body for substantially one half of the thickness of the body wall.

Thus the tearing strip 17 is fully defined as to lateral dimension and depth by the three score lines or weakened areas 21, 23 disposed in opposite sides of the wall of the body. Hence when the tongue 18 is pulled outwardly in the usual manner to open the container, the material of the body splits or separates or tears along an area of cleavage which follows a plane parallel with the surfaces of the body wall and joining the bottoms of the score lines or weakened areas as best shown in Figs. 2 and 4, the line of tear extending from the bottoms of the score lines 21 toward and into the bottom of the score line 23, the removed tearing strip being substantially one half the thickness of the body wall.

With the removal of this improved tearing strip 17, the wall of the body 11 is completely severed or cut through, the body being divided into two parts by a thin or narrow slit 25 (Fig. 4) which is the remains of the inner score line or weakened area 23 and which is so small that no appreciable amount of the contents of the container can escape. Thus during the removal of the tearing strip, the contents of the container are prevented from escape and are held intact until the tearing strip is completely removed and the two parts of the body manually separated to release the contents for use. This feature is of importance when the contents of an incompletely thawed frozen product may contain juices which may partially escape during the opening of the container.

In the modified form of the invention, as disclosed in Figs. 5, 6 and 7, the tearing strip 17 is defined by a pair of spaced and parallel outer score lines or weakened areas 31 and a pair of spaced and parallel inner score lines or weakened areas 32. The outer score lines 31 are cut or otherwise formed in the outer surface of the body 11 and extend into the material of the body for substantially one half of the thickness of the body wall as best shown in Fig. 6. These score lines terminate preferably at the vertices of the notches 19 which set off the tongue 18.

In a similar manner, the inner score lines or weakened areas 32 are cut or otherwise formed in the opposite or inner surface of the body 11 and extend into the material of the body for substantially one half its thickness. These inner score lines are located between the two outer score lines as best shown in Figs. 5 and 6, and extend completely around the body and longitudinally of the tongue 18 to its outer edge, in parallelism with the outer score lines 31.

Hence when the tongue 18 is pulled outwardly in the usual manner, to open the container, the material of the body splits or separates or tears along an area of cleavage which follows a plane parallel with the surfaces of the body wall at a place substantially midway of its thickness,

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from the bottoms of the outer score lines 31 toward and into the bottoms of the score lines 32. Thus the body is severed or completely divided into two parts upon complete removal of the tearing strip as shown in Fig. 7. In this modified form of the invention a stepped tearing strip is produced, a portion of the removed strip having a thickness equal to the full thickness of the body wall and a portion having a thickness of substantially one half of that of the body wall. Such a tearing strip provides a gap 33 (Fig. 7) between the two divided body portions of the opened container, this gap being substantially greater than the slit 25 of the preferred form and having some advantages for certain food products which are packed in containers of this type.

It is thought that the invention and many of its attendant advantages will be understood from the foregoing description, and it will be apparent that various changes may be made in the form, construction and arrangement of the parts without departing from the spirit and scope of the invention or sacrificing all of its material advantages, the form hereinbefore described being merely a preferred embodiment thereof.

I claim:

A container for frozen foods and the like, comprising in combination a tubular body having a wall of fibrous material, a tongue formed in said body wall, a removable tearing strip formed in the outer part of said body wall as a continuation of said tongue and set off by a pair of spaced and parallel score lines cut in the outer surface of said body wall and having a depth substantially half the thickness of the body wall, and a single cooperating score line cut in the inside surface of said body wall substantially midway between and parallel to said spaced score lines and substantially coextensive therewith and having a depth substantially half the thickness of the body wall, said score lines extending around said body, a pulling away of said tearing strip causing the body material to split along an area of cleavage between said outer parallel score lines thus leaving a thin inner wall portion cut by said single cooperating score line for holding the contents of the container intact until the tearing strip is completely removed and the two parts of the container are manually separated along said cooperating score line to release the contents.

GEORGE E. ECKMAN.

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