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Food package with insulation band at openable end

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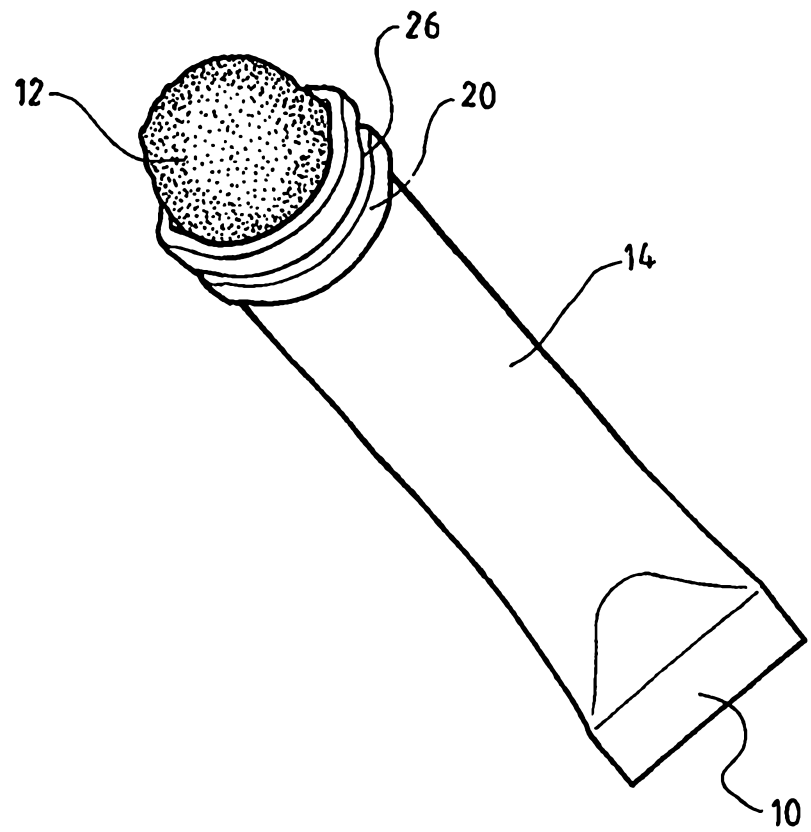
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(54) Title: FOOD PACKAGE WITH INSULATION BAND AT OPENABLE END

(57) Abstract

A food packaging (10) of the type where food such as edible ices, confectionary or savoury bars is eaten by a person chewing at the end of the packaging. Provide at the end of the packaging where the food is expelled is an insulating band (20) manufactured from a suitable insulating material (polyethylene, polypropylene or a polyethylene covered foam) that protects the teeth, lips and generally the mouth of the person from either frozen or hot food. The band may further include a plurality of grooves (26) that assist in holding the food packaging as well as ensuring that the person's mouth remains at the desired location as the food is being eaten.



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FOOD PACKAGE WITH INSULATION BAND AT OPENABLE END

Field of the Invention

The present invention relates to packaging and in particular packaging adapted to contain frozen or hot foods such as edible ices, confectionery and savoury bars.

5 Background of the Invention

Frozen foods, especially confectionery and edible ices are very popular, especially so during hot weather when the cooling refreshment of an ice product is very enjoyable indeed. Whilst some people have no difficulty in eating such ices, some people do find that their teeth and/or mouth are quite sensitive to cold temperatures
10 and accordingly it is uncomfortable and even painful for them to eat frozen ices and confectionery directly from packaging holding the cold material. Similarly hot foods are also very popular but at times difficult to eat since a persons teeth may be much more sensitive to heat than the rest of their mouth.

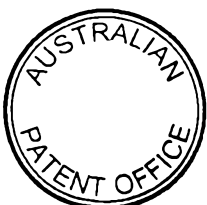
There is no prior art known to the applicant which attempts to solve the problem of
15 eating foods at extreme temperatures. Although frozen bars do come wrapped in materials, such as an insulated wax paper, such material does not of itself as presently used provide any adequate insulation and thus does not answer the problem. Further, such material is vulnerable to continuous chewing at its end causing the packaging to deteriorate to the point whereby the frozen confectionery
20 comes into even more direct or close contact to the mouth and/or teeth.

An object of this invention is to provide a packaging which at least reduces the potential difficulty as set out above or at least offers the public a useful alternative.

Summary of the Invention

In one aspect of the invention there is provided food packaging including;

25 a generally cylindrical body having a sealed end and an openable end and defining a cavity therebetween for supporting food;



a flexible band located around and adjacent said open end, said band being of a size and shape so as to provide insulating protection to a user that engages said packaging with their mouth and/or teeth so as to eat said food.

In preference said band is integral with said body.

- 5 Preferably said band is manufactured from the group including but not limited to polyethylene, polypropylene or a polyethylene covered foam. The material to be used has to have the necessary qualities of insulation, non-toxicity and elastic resilience.

Preferably said band has a diameter in the range of 32 to 50 mm.

- 10 Preferably said band has at least one groove.

In preference the length of said body is in the range of 175 to 200 mm. However, longer or shorter packaging may be used, depending on the food in the packaging.

In preference the outside diameter of said body is in the range of 31 to 35 mm.

Preferably the groove is of a width between 1 to 1.5 mm.

- 15 In preference the band has a plurality of grooves.

In preference the groove is located closer to the edge of the band adjacent the openable end.

Preferably the openable end includes a seal.

- 20 In preference the openable end is made from an elastic resilient material and where when not in use the openable end is caused to provide an effective seal.

In another aspect of the invention there is provided a flexible insulation band for use with food packaging of the type having an elongated cylindrical body and an open end for the distribution of food therefore, said band being of a corresponding shape and size so as to be placed around and adjacent said open end and to provide

- 25 thermal insulation for a user engaging said band with their teeth and/or mouth.



BRIEF DESCRIPTION OF THE DRAWINGS

Several embodiments of the invention are described hereunder in some detail with reference to and as illustrated in the accompanying drawings, in which:

5 Figure 1 is a perspective view of the food packaging of the invention according to a first embodiment;

Figure 2 is a cross sectional view of packaging of Figure 1;

Figure 3 is a partial cross-sectional view of a second embodiment of the invention;

Figure 4 is a perspective view of yet a third embodiment of the invention; and

10 Figure 5 is a cross sectional view of the third embodiment of Fig 4;

Figure 6 is a side view of the invention according to a fourth embodiment; and

Figure 7 is a side view of the invention according to a fifth embodiment.

DESCRIPTION OF PREFERRED EMBODIMENTS

15 Turning now to the drawings in detail it is to be understood that like numbers in the different figures refer to like elements. Thus, there is shown in Figure 1 and 2 food packaging 10 including food 12 such as frozen ices. The food packaging 10 is a generally cylindrical body 14 with two ends, a first sealed or closed tapered end 16 and a second end 18 acting as an outlet through which is adapted to emerge, under pressure, generally external, frozen food 12. The second en may
20 be an aperture sealed by an appropriate seal (not shown) or it may also be a tapered end that is adapted to be opened much like the spout of a milk or orange juice carton. It is also to be understood that the shape of the packaging is not important, provided that the body has an outlet for the dispensing of food contained therein.

25 Disposed around and adjacent the open end 18 is a band 20 that may be either made integral with or separate to the body 14 and whose exact location and width (in the longitudinal axis of the cylindrical body) are chosen so as to ensure

that when a person is eating a food such as ices, as shown in Figure 2, their lips 22 as well as the teeth 24 are adapted to contact the band 20 and not the cylinder body 14. In this way, there is provided insulation between the persons lips, teeth and the frozen food 12 which enables them to eat the frozen food
5 without experiencing discomforts of cold temperatures. By squeezing the body at the tapered end thereof, food is forced to move outwards through the open end. As the food is being eaten pressure is progressively applied along the body towards the open end.

10 The band may typically be manufactured from either polyethylene, polypropylene or a polyethylene covered foam although other appropriate materials may also be used. The outside diameter of the band may typically be between 32 and 50 mm, whilst the band may have at least one groove that is between 1 and 1.5 mm in width. The band may have up to five grooves, that feature described hereunder in further detail.

15 Although Figures 1 and 2 show a separate band, the band may be manufactured integrally with the body. If separate it may be attached to the body via a thermal process or appropriate adhesive. Typically the outside diameter of the food packaging will be between 31 and 35 mm. The materials for the food packaging may be either polypropylene, paper with polypropylene coating, or paper only
20 that may be lined with a wax material. Generally the body is cylindrical along most of its length tapering to a closed end. The length of the body may be some 175 to 200 mm, although other sizes may obviously be desired. The food packaging may be made by either fabrication from sheet materials using a heat seal or adhesive process, thermoforming of sheet material or by injection
25 moulding.

It has been found that a typical width of the band of several centimetres and of several mm in thickness is sufficient to provide protection to the user against the dangers of frozen products. Obviously, to increase the protection of say the lips and other parts of the mouth, the band may be several centimetres in width.
30 Clearly, the dimensions may vary depending on the user. For example, in the case of children one may very well have a smaller band and a smaller diameter packaging.

Shown in Figure 3 is a second embodiment of the invention where the band is made integrally with the packaging. In addition the band includes a groove 26 so

shaped and sized to accommodate a persons teeth as they bite the food packaging. A further improvement may be that the end 28 of the packaging may be elastically resilient to allow the food to push through the ends but when a person has eaten a part of the food, the end re-seals the body.

5 Figure's 4 and 5 exhibit a separate band that is attached to the body and where the band includes a groove adapted to accommodate a persons teeth. The groove may also located further towards the front end of the band to allow for the protection of a persons lips (as shown in Figure 5). Since the groove 26 is adapted to be engaged by front teeth 30 not only does this aid in locking the food
1 0 package in place it allows for the frozen food to be eaten whilst insulating the persons mouth. The groove provides an important advantage especially as one realises that as the body is being chewed, its shape is being constantly changed from being circular to even flat. The grooves assist in keeping the relative placement of a persons mouth to the body without fear of slippage and danger of
1 5 injury from frozen or hot foods.

In a further embodiment there is shown in Figures 6 ad 7 bands that have a plurality of grooves, Figure 6 exhibiting two grooves and Figure 7 five grooves. Multiple grooves allow the flexibility to eat the food in smaller/larger bites and also allow people with different shaped mouths to find a particular use that is
2 0 comfortable to them. The use of the grooves also further aids in thermal dissipation and assists in the insulation process.

It is therefore readily apparent that the present invention provides thermal insulation to a user eating food, whether that food be hot or cold. In addition, it assists in ensuring that the packaging is protected against deterioration that may
2 5 result due to continual chewing at the outlet. This is especially so if the packaging is made from a suitably elastic material.

The above embodiment also shows that the band was continuous around the food packaging. However, and embodiment that is not shown but that may be successfully used is where only partial angular coverage around the diameter of
3 0 the food packaging may have an insulating layer.

Further variations may be made to the invention without deviating from the scope thereof and it is to be understood that the above description is not determined to be limiting but is mainly intended to describe only one embodiment of the present

invention. Thus, additional things like seals, and means of inducing or effecting a frozen confection therein are not specific or discussed. Furthermore, although the above embodiments discussed the food being eaten by effectively pressing externally on the body from the tapered end and towards the open end as the
5 food is being eaten it is to be understood that internal pressuring of food may very well be employed. For example, inert gases may be used to provide a force to expel the food outwards, obviously being under the control of the user.

It is also to be understood wherein although generally reference has been made to frozen ices, the invention could very well be employed in assisting a person to
10 eat all manner of frozen goods, whether it be frozen mashed fruit, or even alcoholic drinks as well as hot foods. The purpose of this specification is to illustrate the invention and not to limit it thus.

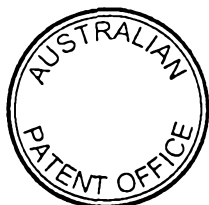
CLAIMS

1. Food packaging including;
a generally cylindrical body having a sealed end and an openable end and
defining a cavity therebetween for supporting food;
5 a flexible band located around and adjacent said open end, said band being
of a size and shape so as to provide insulating protection to a user that
engages said packaging with their teeth and/or mouth.
2. Food packaging as in claim 1 wherein said band is integral with said body.
3. Food packaging as in any one of the above claims wherein said band is
10 manufactured from the group including but not limited to polyethylene,
polypropylene or a polyethylene covered foam.
4. Food packaging as in any one of the above claims wherein said band has a
diameter in the range of 32 to 50 mm.
5. Food packaging as in any one of the above claims wherein said band has at
15 least one groove, to allow the teeth to engage the groove.
6. Food packaging as in any one of the above claims wherein the length of said
body is in the range of 175 to 200 mm.
7. Food packaging as in any one of the above claims wherein the outside
diameter of said body is in the range of 31 to 35 mm.
- 20 8. Food packaging as in claim 5 wherein said groove is of a width between 1 to
1.5 mm.
9. Food packaging as in either claim 5 or claim 6 wherein said band has a
plurality of grooves.
10. Food packaging as in any of claims 5 to 7 wherein said groove is located
25 closer to the edge of the band adjacent the openable end.
11. Food package as in any one of the above claims where said openable end
includes a seal.



12. Food packaging as in any one of the above claims wherein said openable end is made from an elastic resilient material and where when not in use the openable end is caused to provide an effective seal.

5 13. A flexible insulation band for use with food packaging of the type having an elongated cylindrical body and an open end for the distribution of food therefore, said band being of a corresponding shape and size so as to be placed around and adjacent said open end and to provide thermal insulation for a user engaging said band with their teeth and/or mouth.



AMENDED SHEET
IPERAD

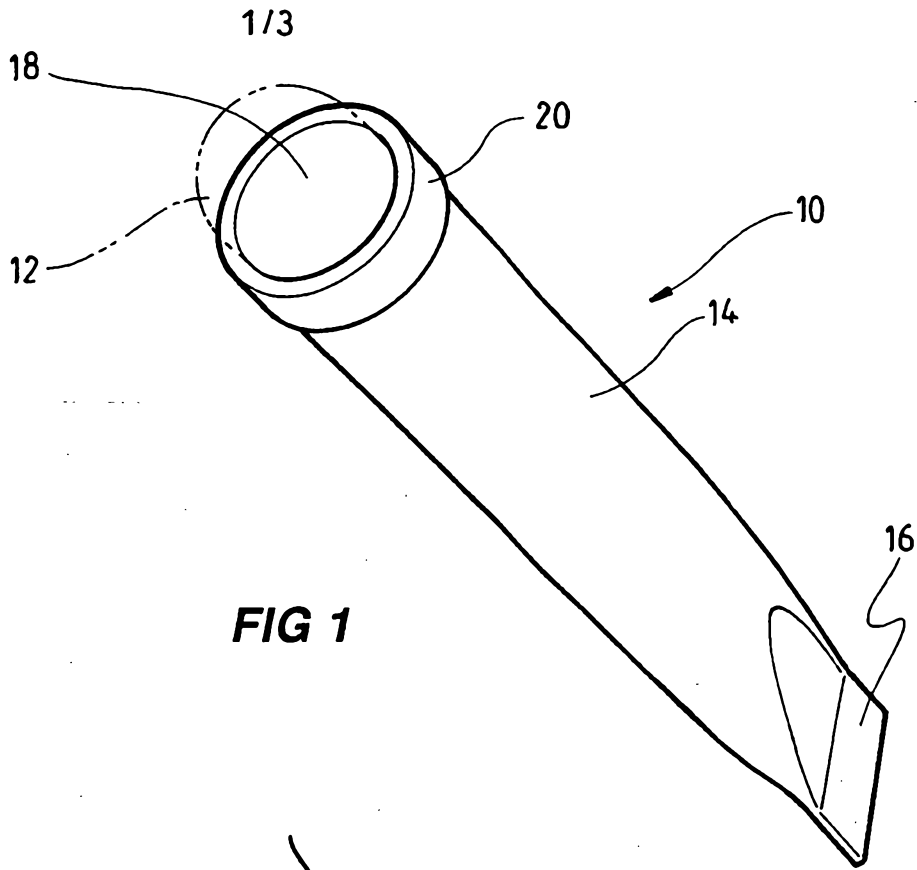


FIG 1

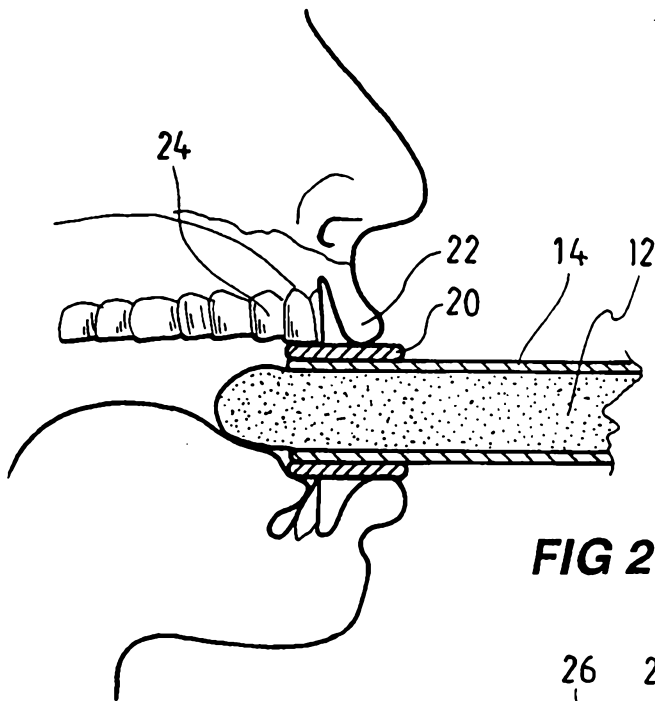


FIG 2

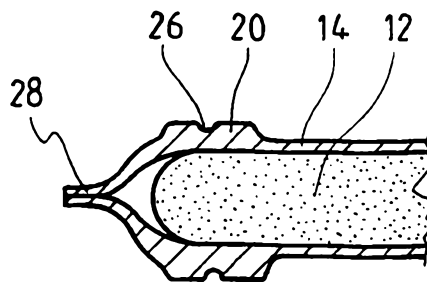


FIG 3

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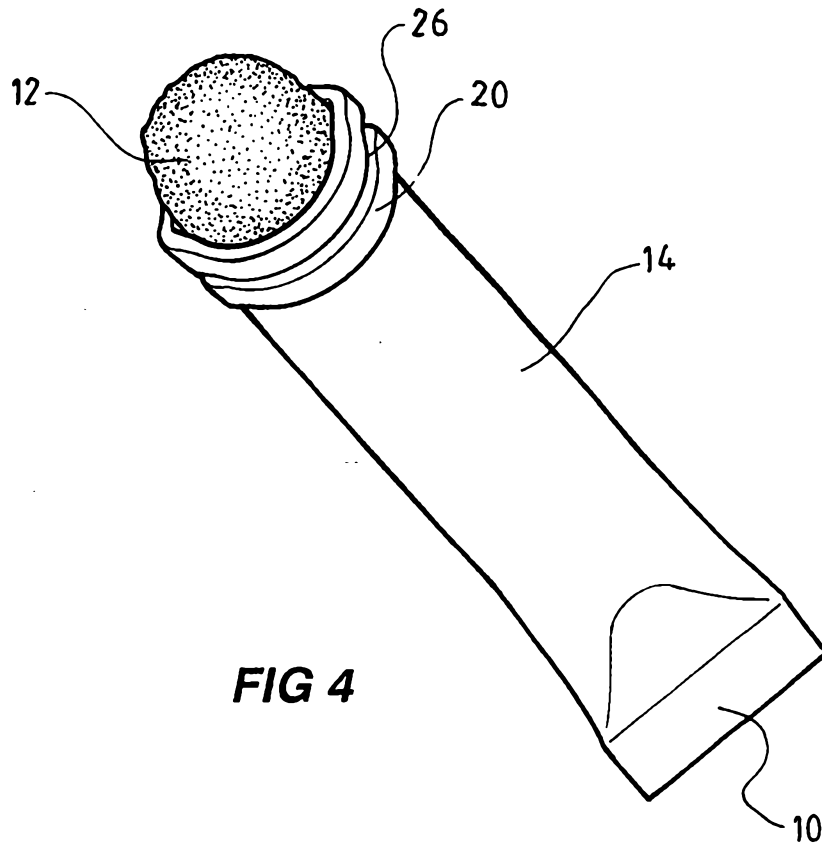


FIG 4

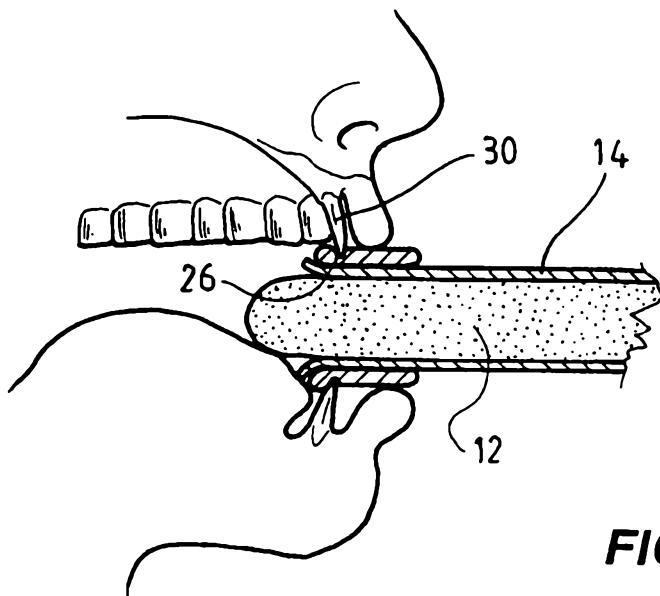


FIG 5

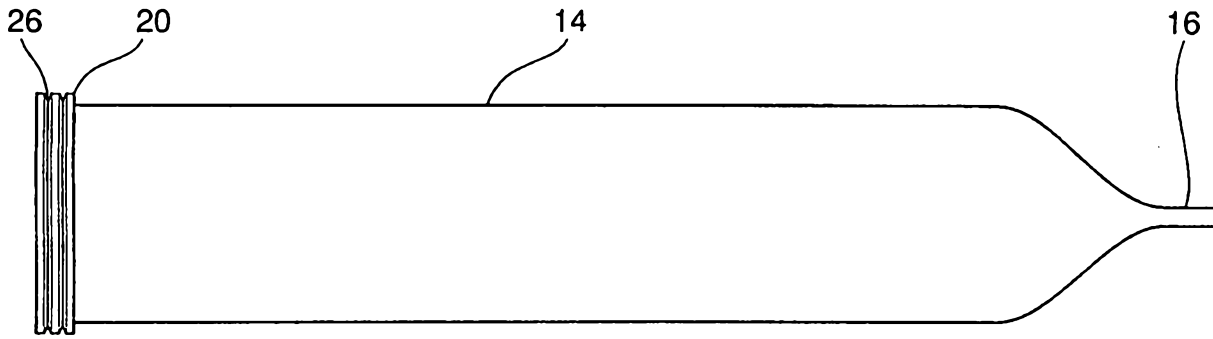


FIG 6

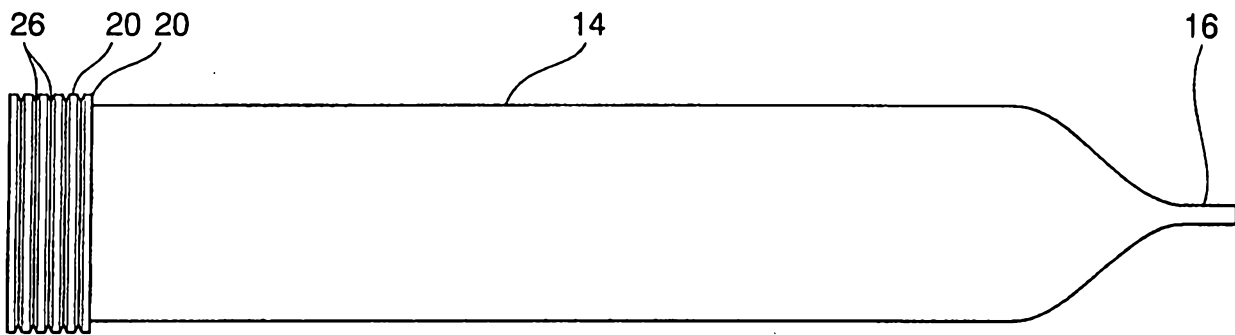


FIG 7